AGED 539 Internship in Agriculture Education

Teddi Nichols

Shafter High School

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Quality Criteria One
Curriculum and Instruction

In the last two years the Shafter Agriculture Department has grown from two teachers to four teachers. Each expansion has allowed the department to open more classes with a larger variety to our students. The hope of our department and the administration is to complete a rigorous and complete course load for the students in the agriculture department. There are only a few classes in our department that are elective credit. Almost all of our classes count for either a science, history, or art credit. This allows our students to be involved in other advanced and rigorous classes while also being a part of our program.

We have two different pathways in our program right now: Agriculture Science and Agriculture Mechanics. Almost all of our students start in the freshman level class. Before this year; that class was Ag Earth Science. This year all freshman who take the freshman science will take Agriculture Soil Science. This class allows us to teach agriculture concepts alongside earth science concepts together. Their sophomore year, many students will move onto Agriculture Biology. This class is now the UCCI Sustainable Agriculture class. This year we will be offering a GATE Ag Soils and Sustainable Agriculture class as well. This is an addition thanks to the request of the students. The agriculture soils GATE class was added due to the interest of GATE students in our program.

After their sophomore year the students in the Shafter Agriculture Department have many options for their junior and senior year. On the science side of our department we offer Biotechnology, Veterinary Science, Floral Design 1 & 2, Ag Government/ Economics, and an Agriculture Leadership-Public Speaking class. On the mechanics' side, the students have the option to take Beginning Agriculture Mechanics, Ag Welding 1 and Ag Welding 2.

Our students not only receive science and mechanics information in their classes. As a department we find it very important to incorporate FFA into our teachings as well. All four of the teachers in our department teach record books and encourage the participation in SAE projects. We also teach Parliamentary Procedure, Opening and Closing Ceremonies, Creed, Banking, and Cooperative Marketing during our classes. All freshman level classes will receive instruction in a FFA unit. They learn everything there is to know about FFA; from the beginning to now. No matter what class students take in our department, they are prepared to conquer what lies ahead of them. Whether this is college, work or trade school.

Quality Criteria Two
Leadership and Citizenship Development

Shafter FFA has been growing for the last few years. This last year we successfully competed in twenty-one of the twenty-two sectional activities. We had at least one student in every public speaking contest, an advanced parliamentary procedure team and had the most teams compete in the Opening and Closing Contest than Shafter High has seen before. The sectional activities not only include competitions but also community service and fun activities.

Students in the Shafter FFA have the opportunity to participate at the chapter, section, regional, and state levels. Our chapter not only holds monthly meetings. We also hold community service events, fundraisers, and tours for local elementary schools. Some of these events include making and delivering Valentine's cards to the elderly, serving omelets to the Teachers Ag Seminar, and hosting our annual Fall Harvest. Shafter FFA members also have the opportunity to participate on the vegetable crop judging, parliamentary procedure, pest, light horse, and vet science teams this year.

On top of competitions and teams, our FFA members have the opportunity to enhance their leadership ability through leadership conferences hosted by FFA. Transportation and the availability of vehicles is the number one deterrent to taking students to an event. Sign-ups is the number one way we determine students who will attend events. Dedication to a team and practice ensures their spot. For many of our conferences we will pass out applications that will determine which student will attend. This is especially true for conferences such as MFE, ALA, and State Conference. Greenhand conference is application based because of the amount of freshman in our program.

In all classes taught in the Shafter Agriculture Department FFA and SAE are a graded component. Together the two amount to ten percent of the student's overall semester grades. To accomplish a 100% in the FFA requirement, the students must obtain at least 100 FFA Points for the semester. This is simply accomplished by attending four chapter meetings. The more time, commitment, and effort that is required for an event the more points it is worth. We understand that all students will not be able or willing to do many of the "more difficult" activities. We also offer points for fundraising that the students do for our program. This year we are hoping to do some type of top 10 trip for those students who have the most points for the year.

As mentioned in criteria one students also learn multiple FFA topics in the classroom. These topics are incorporated into their grades. The topic will determine how long we work on the event and how much of the grade it will be worth in the grade book. The Agriculture department and administration recognize that FFA is a large part of what we do in the department. By opening the opportunities, we do we are able to retain many of our members. This allows us to grow and become more competitive across the board.

Quality Criteria Three
Practical Application of Agricultural Skills

The last circle in our three circle model is Supervised Agricultural Experiences or SAE. Shafter has had a long history of successful SAE projects; many being animal projects. Our FFA program is slowly building back the booming SAE portion of our department. This year we have the most projects the school has seen in many years. The most popular projects of course are animal projects. We are fortunate enough at Shafter High School to have an on-site school farm. Many schools in the Kern High School District are not as fortunate. The majority of our students will keep their projects at the farm after they have met all the requirements. Our animal projects include: goats, sheep, pigs, dairy goats, dairy heifers, chickens and rabbits. We also have a flock of breeding ewes that I managed with my students. We have had cattle projects in the past but many of our students now cannot afford them.

With the addition of the floral classes, it has opened many options for our students in their SAE choice. The floral classes make flower arrangements for school events, community events, weddings, funerals, as well as the monthly flower choices bought by teachers on campus. The floral classes are also able to help with the pumpkin path that we have on our property. Not only will students be able to help with the traditional pumpkins this year; they will also be able to help in the Pink Pumpkin Project.

Part of our farm is two growing fields. This is where the pumpkins along with other crops are grown. Unfortunately, we are not able to grow as much as we would like due to the drought. This being the case, we have an agreement with Sakata Seed. They use our land to grow trials, crops for seed, and help with our pumpkin projects. This opens an opportunity to our students for an SAE as well. Many of the students are able to help with the planting, tending to

and cultivation of the crops. Outside of our farm, many of our students work in production agriculture. Kern County is filled with many crops, orchards, and farms. There are a multitude of our students who work with their parents or at the place their parent does in production agriculture.

Last year, we made it mandatory for all students to complete an SAE Project for class. This Project had to be something agriculturally related that the student would work on throughout the year. At the end of the year the students turned in a complete record book and project board that showed off their SAE Project. It was not as successful as I would have hoped but very well taken by the students. All freshman this year will have to complete an Agriscience Fair Board. The best ones will continue onto the Agriscience Fair competition. All other students will also have to have a SAE project. The way they report it will most likely be in a monthly update with pictures and a write up.

Part of the ten percent of the FFA and SAE grade will go toward the projects the students work and report on. There is an abundance of options for our students to complete this portion of their grade. Many of our students cannot afford big projects nor have the means to take care of it. By providing multiple opportunities to our students we can ensure they complete this portion of the three circles.

Quality Criteria Four
Qualified and Professional Personnel

All of the agriculture staff at Shafter High School are qualified and credentialed to teach. Two of the teachers in our department have their cleared Agriculture Single Subject and Ag Specialist Credentials. I am credentialed with a preliminary Agriculture Single Subject as well as a clear Specialist Credential. I am going into my second year of BTSA to obtain a clear single subject credential. The fourth teacher has a single subject credential in Biology and Earth Science. She is working towards obtaining her single subject credential in agriculture at this time. She is also in her second year of BTSA to obtain a cleared credential.

All four of the teachers in our department attend the CATA fall and spring meetings. We also attend the Fall Regional Roadshow (held before our fall meeting) and CATA summer conference. Attending these meetings and conferences allow us to grow in our profession. As well each teacher is able and does attend seminars and trainings at the Kern High School District. These range from technology to curricular training. This along with our professional learning communities or PLC's. Time is set aside every Wednesday before school starts to meet with our departments and other departments about the curriculum we are teaching. Due to the supportive attitude of our administration, the agriculture department is able to attend outside seminars as well. This could be in programs like AET, safety or something related to the subjects we teach.

The Shafter Agriculture Department is keeping our curriculum rigorous by teaching to the newest standards. As well we are teaching the new UCCI courses this year. By attending numerous workshops, seminars, and sessions at the above organizations we are able to keep ourselves up to date on education pedagogy and techniques. This also keeps our department competitive on a curricular level not only amongst our agriculture peers but our science peers as well.

Quality Criteria Five
Facilities, Equipment, and Materials

Shafter Agriculture department is very fortunate in our facilities. There are three full time classrooms, a computer lab with eighteen computers, a teacher office and a farm on site. Our school farm consists of livestock housing facilities, a shop, a livestock pavilion, a portable classroom, and acres of pasture as well as growing grounds. Unfortunately, we do not have enough water at this time to fully utilize our crop/growing grounds. Right now the smaller plot of land is used in conjunction with Sakata Seed. The larger portion is just dirt right now. We will disk it every once in awhile just to keep the weed population down and the soil moving. We also have two district trucks and two trailers to haul students and livestock.

We not only have a great farm facility, but we also have some great access for our classes. We have a computer lab in between one of the classrooms and the teacher office. We can also check out a chromebook cart or reserve a day in one of the computer labs on campus. In our office we have access to computers, a copier and a large storage room. We also have our own restroom, fridge, and filing cabinets. This makes it easy for us to prepare materials for our classes and events. The storage in our office and computer lab allow us to store materials for classes and our FFA chapter.

Before I was hired at Shafter High School, the agriculture department was allotted money for the Prop D-1 Grant. This last year, the renovation of our ag mechanics/welding shop began. This allows us to remodel and update the shop that the mechanics and welding shops use. Part of the renovation was also updating the restrooms right next to the shop. This will include a boy, girls, and a new staff bathroom. In the shop they are adding more welding booths, machining equipment, and new locker room. We are hoping that by the second semester of this year the

shop will be ready to use. At the moment the classes that were once using this facility are using the shop at our farm. We are very lucky that we are able to have so many facilities to use in our program.

The amount of facilities and equipment that is available to us is very different than many in the Kern High School District. We are only one of a few that have our own farm on campus. Many of the schools in the district share a farm or have farms that are off site. This unique set up allows us to utilize all components to best teach our classes.

Quality Criteria Six
Community, Business, and Industry Involvement

Although Shafter High School is a part of one of the largest school districts in the state, we are located in a very small community. A community that is rooted in tradition and General Pride. This makes for a very unique situation at our school and our program. We are also located in a very agricultural area. The general Bakersfield area is surrounded by agriculture, but we have agriculture all around our school and town. We have support for our program from many businesses and organizations in our community. There are those that are always willing to help in the furthering of the high school and its programs. We reach to those people when help is needed, no matter big or small.

We also have a pretty good group of parents who are always willing to help. Many of them help the most during the fair season but there are those who help year round. These are the parents who are invested not only in our program but their students success in the program.

Unfortunately at this time, we don't really have a working Advisory Committee, Our program has expanded a lot in the last two years. Because of this growth, our original advisory committee no longer represents our program. We are currently rebuilding the committee so that it may represent our program better. We would like to add an ag mechanics, floral, horticulture, and veterinary person. We would also like to have members who are involved overall in Shafter agriculture. There are many families in Shafter that are in the agriculture industry and also have or had students who were in our program. They will be very helpful to us in making key decisions for our program.

Quality Criteria Seven
Career Guidance

In our program, we try to introduce opportunities after high school as much as possible. Starting in the Ag Soils Science and Intro to agriculture mechanics. These classes introduce careers and postsecondary options to students. We try to follow the students through all of their classes in our program to remind them of the options they have available. Unfortunately, we do not have one counselor assigned to all of our students. Each counselor gets a grade level and then are split if they are in the Project Lead the Way: Engineering program. Although this is the case, we work closely with all the counselors to make sure our students are placed in the right classes.

This year we were able to meet with all the counselors and explain those classes that are electives or advanced classes. This help them understand prerequisites and which students should be in our classes. It helps to bridge any gaps that may be present from our department to theirs. We also use data sheets to help the counselors place students in the proper classes. We only have a couple pathways in our department which makes placing students a little easier. With this being said, we still work with the counseling department and our students to make sure they are placed in the right classes for them.

Another way that our students are exposed to colleges and careers is through field days and conferences. Competing and seeing the campuses during conferences allows the students to make an informed decision on their college of choice. Some of our students would never be able to have this unique experience without the FFA. It is not just our program that exposes our students to postsecondary education and options.

Our campus is very good at advertising financial aid and colleges. In our cafeteria there

are college penates that line the room. We also offer a Career Choices class on our campus. Every freshman must take this course. It uses the Get Focused, Stay Focused program. Career Choices takes students through a journey of what it really costs to make decisions. They explore what their values are and how they affect their future life and their career. It is one that puts an unmeasurable amount of resources in our students back pockets for their future.

Our career center is also very good at helping students with financial aid. They always have scholarships available as well as hold FAFSA workshops. We work closely with them as well to make sure agriculturally related scholarships are available to their office. This way the students not only can access them from us but also in the career center. My hope is one day the agriculture department has their own counselor. Although this most likely will not happen unless we become an academy. Our students deserve to work with a counselor that knows what they need and want after their secondary education.

Quality Criteria Eight
Program Promotion

Not only are we extremely fortunate to have the facilities we have but we are also very fortunate to have the support of our administration. They are very pro agriculture and because of this our department has grown by two teachers in the last two years. This support allows us to be able to promote our program very well. They are always encouraging us to promote the program if they have not. Many times they will place big announcements or accomplishments of our department in the daily announcements, parent newsletter, and to the staff.

This last year we were able to promote our program more than it has been for many years. We were able to add accomplishments of our program and students in the above communications. Each day during second period, announcements are read. There were multiple times we were able to have our accomplishments read during this time. We also had many of the accomplishments put on our school website and in the school parent newsletter.

In addition to this we have a booth not only at our eighth grade orientation night but also at both registration nights. At the orientation event we bring out pictures, animals, and students to promote the program. We inform the students coming to our high school what their opportunities in our program are. Many times this is how we introduce the program to the eighth grade students. We may also find students who want to show for our livestock team during the summer. During registration, we have a table just to remind students of the opportunities and create a more one on one moment. Many times this allows us to answer any questions the parents may have about the program.

In addition to these events, there are two events we hold for elementary students on our

facilities. We host an annual Fall Harvest event. The local elementary students are asked to come to our farm. Students create booths based on agriculture commodities that are seen in the fall. They then get to educate the elementary students about their chosen product. This last summer we were able to also host students from Buttonwillow to tour our farm. The students came and saw the animals for the fair and our crops in our field. Though these two events host younger students, it promotes the program to future students.

Not only do we promote to other schools, we try to promote to our own students. During National FFA Week, we make the events school wide. Dress up days are announced and posted school wide. Also we host lunch time activities during this week in the main quad. This allows the whole student body to see what our students are doing. It may seem like little things that promote our program but they do just that. We are proud of the good work of our students do and what that to be known, not only at our school but in the entire community.

Quality Criteria Nine
Program Accountability and Planning

In the last two years, the Shafter Agriculture Department has gone through many changes. The process change began in January 2015. Since this time three new teachers have been hired; all with varying levels of expertise. Due to the fact that we have had this much change our department has gone through a lot of planning. The first year, many things did not change but we still met with administration to go over classes and program outlook.

With new additions to the program we have not only changed the curriculum but the FFA program as well. We have more constructed chapter meeting and activities. At the beginning of each year, the four teachers sit down and review all the activities that will happen in the year. This allows us to set responsibilities for each event and who is in charge of them. Our officer team is also a big component in this process. Each year the officer team reviews the highlights and low points of the year before. They add their input to what they believe will work better at the Officer Retreat.

Our department is currently the largest agriculture department in the Kern High School District. This means there are many eyes watching our department to see how it does. Not only is our school administration keeping a watch on us but also district administration, other principles, and other agriculture departments. We will also hear from our community on how we are doing. We have many students in our program whose parents are very involved in the agriculture industry. These parents and family members keep us accountable to what we are doing in our program. They will let us know what we are doing well and what we need to maybe work at doing better.

With many eyes watching us, we as a department change when needed. We have to make

a conscious effort to make sure we are all on the same page. In some sense, we keep each other accountable for the program. By meeting regularly and communicating what needs to be accomplished. Regularly meeting allows us as a department to plan and keep the items we planned in order.

Quality Criteria Ten
Student Teacher Ratio

This year, we meet the teacher to student ratio for our ag mechanics shops. There are no more than twenty students in each class. Although, our science and floral classes are above capacity. Most of these classes are between thirty and forty students. It seems that the freshman classes are entering larger each year. This means that many of the freshman level classes are over the twenty five students. The classes that it is hardest to maintain numbers are the science classes; Ag Earth Science and Ag Biology. The class numbers are better since we have added teachers but it still is difficult.

As a department, we speak with our counseling department and administration to keep the class sizes down. This is not always executed because of the amount of students that are on the campus. It is very unfortunate that we can not keep the numbers lower but it is the biggest struggle with our classes.

Quality Criteria Eleven
Full Year Employment

Three of the four teachers in our agriculture program are full time agriculture. The fourth teacher teaches three periods of Ag Biology and two periods of regular Biology. I am currently on an extended day contract for the 2016-2017 school year. I am not sure if this will be the case for the next school year. We all are on an eleven month contract with a thirty six day summer contract. The summer contract is time allotted to us working with animal projects for the Kern County Fair and our officer teams. We must turn in a time card every month with our time worked to the school secretary. Below is the current salary scale for the Kern High School District.

CLASS I, STEP 1 * $41,310
CLASS II, STEP 1 * $45,906
NEW TCHR MINIMUM * $48,347
DOCTORATE * $2,992

KERN HIGH SCHOOL DISTRICT
Certificated Base Salary Schedule 1008
2016-2017

EFFECTIVE JULY 1, 2016
Reflects 2.5% Salary Increase

	CLASS I		CLASS II		CLASS III		CLASS IV		CLASS V		CLASS VI		
STEP	WITHOUT MASTERS	WITH MASTERS	WITHOUT MASTERS	WITH MASTERS	WITHOUT MASTERS	WITH MASTERS	WITHOUT MASTERS	WITH MASTERS	WITHOUT MASTERS	WITH MASTERS	WITHOUT MASTERS	WITH MASTERS	STEP
1	41,310	44,297	45,906	48,896	48,896	51,887	51,887	54,880	54,880	57,869	57,869	60,861	1
2	43,253	46,245	47,852	50,840	50,840	53,833	53,833	56,822	56,822	59,813	59,813	62,804	2
3	45,197	48,186	49,796	52,785	52,785	55,775	55,775	58,766	58,766	61,759	61,759	64,749	3
4	47,141	50,132	51,739	54,729	54,729	57,720	57,720	60,711	60,711	63,701	63,701	66,691	4
5	49,084	52,077	53,683	56,673	56,673	59,665	59,665	62,654	62,654	65,644	65,644	68,637	5
6	51,029	54,020	55,628	58,617	58,617	61,607	61,607	64,600	64,600	67,590	67,590	70,581	6
7	52,974	55,963	57,569	60,564	60,564	63,552	63,552	66,543	66,543	69,535	69,535	72,524	7
8	54,916	57,907	59,516	62,504	62,504	65,497	65,497	68,486	68,486	71,478	71,478	74,470	8
9	56,861	59,853	61,457	64,449	64,449	67,440	67,440	70,432	70,432	73,421	73,421	76,412	9
10	58,805	61,795	63,403	66,396	66,396	69,384	69,384	72,374	72,374	75,367	75,367	78,356	10
11			65,348	68,337	68,337	71,328	71,328	74,319	74,319	77,310	77,310	80,301	11
12					70,281	73,272	73,272	76,264	76,264	79,253	79,253	82,245	12
13					72,227	75,216	75,216	78,206	78,206	81,199	81,199	84,190	13
14	(Available only after 17 years of qualified educational service)										83,142	86,133	14
15	(Available only after 22 years of qualified educational service)										85,086	88,076	15
16	(Available only after 27 years of qualified educational service)										90,918	93,909	16
17	(Available only after 32 years of qualified educational service)										95,949	103,654	17

PLEASE NOTE: This schedule will take effect on: July 1, 2016

(1) The minimum annual salary paid an employee (Class I, Step 1, W/O a master's degree) will be: **$48,347**

(2) All requirements for the class shall have been satisfied by the employee as of: September 1, 2016

(3) To be eligible for a step placement, an employee must have had the required yrs of experience as of: September 1, 2016

(4) Steps 14, 15, 16 and 17 are awarded on basis of qualified educational service.

Human Resources

Quality Criteria Twelve
Program Achievement

Shafter FFA meets most of the standards in criteria twelve. There are some items in the checklist are not met yet by our program. We are working on improving these areas at the moment. Please see the attached documents as evidence.

California Department of Education
AGRICULTURAL CAREER TECHNICAL EDUCATION INCENTIVE GRANT
QUALITY CRITERION 12

Agricultural programs meeting all of the required Quality Criteria (Criteria 1–9) and Criterion 12 may qualify for an additional $7,500. This form along with the appropriate verification must be attached to the Agricultural Career Technical Education Incentive Grant Application. The Incentive Grant application is due in the Regional Supervisor's office on June 30, 2016.

Number of Students on Previous Year's R-2 Report: 324

12A Leadership and Citizenship Development

25 Number of activities on the approved FFA Activity list in which the local chapter participated (must participate in at least 80 percent of the activities)

12B Practical Application of Occupational Skills

11 Number of students who received the State FFA Degree (must be at least 5 percent of the R2 number)

12C Qualified and Professional Activities

4 Number of teachers who attended a minimum of five professional inservice activities (must attach approved Inservice Activities Verification Page)

12D Community, Business, and Industry Involvement

0 Number of meetings held by the local Agriculture Advisory Committee (must be at least three, with minutes attached)

Name of Agriculture Advisory Committee Chair: _____

Phone Number of Agriculture Advisory Committee Chair: _____

12E Retention

20 Number of students from the 2012 Freshman cohort who completed 3 or 4 years of Agriculture Education courses must be at least 30% of the 2012 Freshman cohort

12F Graduate Follow-Up

11 Number of program completers graduating last year

8 Number of those who graduated who are employed in agriculture, in the military, or continuing their education (must be at least 75 percent of the program completers). Attach graduate follow-up report

ANNUAL FFA CHAPTER ACTIVITIES CHECK SHEET

Year '16-17 **School** Shafter HS

Must meet at least 12 areas

ACTIVITY	NUMBER OF PARTICIPANTS
Attended the following:	
Greenhand Conference	18
Made For Excellence Conference	2
Advanced Leadership Academy	3
Chapter Officer Leadership Conference	10
Spring Region Meeting	9
State Leadership Conference	15
National Convention	
Submitted the following:	
State Degree Application	13
American Degree Application	3
Proficiency Award Application - Section	2
Chapter Award Application - State	
Scholarship Application - State	
Participated in the following:	
Opening and Closing Contest - Section	60
Best Informed Greenhand Contest - Section	5
Co-Op Marketing Quiz - Section	5
Creed Recitation - Section	2
Extemporaneous Speaking - Section	2
Job Interview - Section	2
Impromptu Speaking - Section	3
Prepared Speaking - Section	2
Parliamentary Procedure - Section	10
County/District Fair/Show	40
Career Development Teams (other than those identified above)	
1 Novice Records	3
2 Veg Judging	5
3 Want to do Pests and maybe Floral and Horse or AgriSci	4
Other Activity Above the Chapter Level (Leadership Events/Additional CDE Teams)	
1 Sectional Elections (1 candidates, 2 delegates	9
2 Hosted Sectional COLC	
3 Sectional Bowling and Skating	20
4 State Awards Banquet and Servers	19
5 Ag Bash-FFA Week Activites w other School	22
TOTAL AREAS MET	20

INCENTIVE GRANT IN-SERVICE ACTIVITIES DOCUMENTATION

CRITERIA 4.B **School Year** 2016-17 **School** **Shafter**

Based on the previous year's record, every agriculture teacher, teaching at least ½ time agriculture, attends a minimum of four of the following professional development activities:

Qualified and Competent Personnel

ACTIVITIES	TEACHERS NAMES							
	Morales	Renick	Nichols	Bledsoe				
Fall Region Meeting	X	X	X	X				
Region In-service Day	X	X	X	X				
Spring Region Meeting	X	X	X	X				
Section In-service*	X	X	X	X	COLC			
Section In-service*	X	X	X	X	Records			
Section In-service*	X	X	X	X	Social			
Section In-service*	X	X	X	X	Planning			
Summer Conference	X	X	X	X				
University AgEd Skills Week				X				
Professional Development **	X	X	X	X				

* Four Section In-service Meetings equals one Professional Development Activity

** Can utilize a *maximum* of two other *"Agriculturally Related"* Professional Development activities than those listed above. Explain the Professional Development:

1 District Training

2 CCPT Meetings

3 Regional Roadshow

4

5

Section II- AGED 539 Project

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Project Proposal

(to be completed in conjunction with AGED 539)

Quality Criteria Number Addressed: #5-Facilities, Equipment, & Materials.
Goal or Purpose of the Project:

To establish a storage area for all student files. These files include student data sheets, applications, written disciplinary papers, and any other FFA related material.

Specific Objectives to Accomplish (Be as detailed as possible):

Currently there is no allotted space in our department to store student data sheets, point sheets, applications for degrees, or FFA disciplinary paperwork. I would like to create files for each student in one of our department filing cabinets for this information. I will create a file for every student that is in the program and store them by grade level. Each grade level will have their own colored hanging file folder (i.e. freshman will be orange, sophomores will be blue, etc.) As the chapter roster changes the files will be updated. This will include moving students to the next grade folders, cleaning out student folders who have left the program, and adding students who have entered the program.

Estimated number of hours on this project: 10 .

Estimated expenditures ($) on this project (your costs) : $30 .

Proposed timeline for completion of the project: I would like to finish the project by December 23, 2016.

Progress Report: How will you inform the Cal Poly faculty of your progress on a regular basis?

I will e-mail the faculty a progress update each month about what things I have completed and what things need to be done still. Also I will add pictures of my progress. When the project has been completed I will send photos of the files.

For Office Use Only:

Project Approved By: _____.

Date of Approval: _____.

Quarter student will enroll in AGED 539: _____.

AGED 539 Project

For my project I updated student files in our agriculture office. There was no real spot for students information to be placed. I organized and dedicated a filing cabinet to student information in our office. I also created some online survey and communication items. The student files were fairly simple to put together, I made files for classroom tests, quizzes, and other items. I also made files for any FFA information that I collected from the students. I created this separation because there is nothing more frustrating than trying to find an application or contract in the middle of safety tests and quizzes.

I also made multiple online surveys; mainly through Google Forms. The first was a survey for the R-2 data. Once I created this survey I realized that the students could log on to calaged.org and put their information directly into the system. Knowing this, I had students enter their own information. The second one was a graduate survey. Google Forms makes it very easy to collect data and compile it. A few of our graduates responded to the survey this year. The last thing I did was create a MailChimp for the chapter. My hope was to collect parent information and send eNewsletters to them. Unfortunately, I was unable to use this tool but am looking forward to using it in the future.

Please see photo of student filing below.

Section III- Supporting Completion Materials

Section III- Supporting Completion Materials

A. Student Data Sheets
B. Permanent Student Files
C. Course Outlines
D. Course Gradebook
E. SAE Supervision Forms
F. SAE Requirements
G. FFA Requirements
H. Program of Activities
I. Recruitment Program
J. Chapter Scrapbook
K. Summer Calendar
L. Graduate Follow Up Survey & Results
M. Comprehensive Program Plan
N. Advisory Committee
O. Proficiency Standards
P. Credentials
Q. Department Calendar of Activities
R. Professional Growth
S. Department R-2 Report
T. Travel Request
U. CATA Membership
V. Professional Development Report to Administrator
W. Five Year Acquisition Plan
X. Department Operating Budget
Y. District/Department Budget Process
Z. Chart of Responsibilities
AA. Substitute Procedures
BB. Program Completer Description
CC. Community College Dual Enrollment
DD. Reimbursement Process

AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised ...8.10

A. Name [redacted]
Last Name First Name, MI

B. Gender: Male ____ Female X

C. Ethnicity/Race:
Are you Hispanic or Latino? (Check one): Yes X No ____

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

- X American Indian or Alaskan Native
- ____ Asian Indian
- ____ Cambodian
- ____ Chinese
- ____ Hmong
- ____ Japanese
- ____ Korean
- ____ Laotian
- ____ Vietnamese
- ____ Black or African American
- ____ Filipino
- ____ Guamanian
- ____ Samoan
- ____ Tahitian
- X White

D. Year in Agriculture Program: 2nd
(1st, 2nd, 3rd, 4th)

E. Grade Level in School: 10th
(9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)

- X I plan a career in agriculture
- ____ Not a career, just an interest in agriculture.
- ____ Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis ( ) an occupation in agriculture you would enjoy doing.

Biology teacher

H. Date: 3-8-17

I. Locator Data
Street Address: [redacted]
City, Zip: 93203
Phone Number: ____
Email: ____
Parent/Guardian Name (Print Full Name For Each):
Mr. [redacted]
Miss/Mrs./Ms. [redacted]

J. Program of Instruction Being Pursued: (Select Only One)

- ____ Plant & Soil Science (4010)
- ____ Animal Science (4020)
- ____ Agricultural Mechanics (4030)
- ____ Agricultural Business (4040)
- ____ Ornamental Horticulture (4050)
- ____ Forestry & Natural Resources (4060)
- X Agriscience (4070)

K Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time ____

   No Further Education ____
   Some College Later ____

2. Go to College X

   Community College ____
   Four Year College ____
   Full-Time Student X
   Part-Time Student ____
   Agriculture Major X
   Non-Agriculture Major ____

3. Go Into Military Service ____

STUDENT PROGRAM PLANNING FORM

L. Planned course of study to meet occupational goal. By school year, list all classes previously taken, currently taking, and planned to be taken in the future.

FRESHMAN YEAR School Year Course	SOPHOMORE YEAR School Year Course	JUNIOR YEAR School Year Course	SENIOR YEAR School Year Course
Earth Scie[redacted]	[redacted]te Biology	Bio tech	leadership
[redacted]	Horticulture	leadership	vet Science

M. Supervised Agricultural Experience Plan (Project Program should be related to career goal).

S.A.E	Size	S.A.E	Size	S.A.E	Size	S.A.E	Size
Landscaping							
Work Experience							
pig		Pig					
chickens		chicken					

N. Planned Department Activity (FFA)

Attend FFA Meetings			
sectional activities			
competitions			
officer			

Parents/Guardians Signature: _____

AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised 7/10

A. Name [redacted]
Last Name J First Name, MI

B. Gender: Male _____ Female X

C. Ethnicity/Race:
Are you Hispanic or Latino? (Check one): Yes _____ No X

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

_____ American Indian or Alaskan Native
_____ Asian Indian
_____ Cambodian
_____ Chinese
_____ Hmong
_____ Japanese
_____ Korean
_____ Laotian
_____ Vietnamese
_____ Black or African American
_____ Filipino
_____ Guamanian
_____ Samoan
_____ Tahitian
X White

D. Year in Agriculture Program: 2nd
(1st, 2nd, 3rd, 4th)

E. Grade Level in School: _____
(9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)

X I plan a career in agriculture
_____ Not a career, just an interest in agriculture.
_____ Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis ( ) an occupation in agriculture you would enjoy doing.
Veterinarian

H. Date: 3-8-17

I. Locator Data
Street Address: [redacted]
City, Zip: Bakersfield
Phone Number: [redacted]
Email: [redacted]
Parent/Guardian Name (Print Full Name For Each):
Mr.
Miss/Mrs./Ms. [redacted]

J. Program of Instruction Being Pursued: (Select Only One)

_____ Plant & Soil Science (4010)
_____ Animal Science (4020)
_____ Agricultural Mechanics (4030)
_____ Agricultural Business (4040)
_____ Ornamental Horticulture (4050)
_____ Forestry & Natural Resources (4060)
X Agriscience (4070)

K Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time _____

No Further Education _____
Some College Later _____

2. Go to College X

Community College _____
Four Year College X
Full-Time Student _____
Part-Time Student _____
Agriculture Major X
Non-Agriculture Major _____

3. Go Into Military Service _____

STUDENT PROGRAM PLANNING FORM

L. Planned course of study to meet occupational goal. By school year, list all classes previously taken, currently taking, and [illegible] be taken in the future.

FRESHMAN YEAR School Year	SOPHOMORE YEAR School Year	JUNIOR YEAR School Year	SENIOR YEAR School Year
Course	Course	Course	Course
Earth Science	Gate Biology	Biotech	Floral 2
		Ag leadership	Ag leadership
		Floral 1	

M. Supervised Agricultural Experience Plan (Project Program should be related to career goal).

S.A.E	Size	S.A.E	Size	S.A.E	Size	S.A.E	Size
Landscaping							
Work Experience							
goats	30	goats	40				

N. Planned Department Activity (FFA)

Attend FFA Meetings			
Sectional activities			
Competitions			
Officer			

Parents/Guardians Signature: _____

AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised .10

A. Name [redacted] [redacted]
Last Name First Name, MI

B. Gender: Male ____ Female ✓

C. Ethnicity/Race:
Are you Hispanic or Latino? (Check one): Yes ✓ No ____

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

- X American Indian or Alaskan Native
- ____ Asian Indian
- ____ Cambodian
- ____ Chinese
- ____ Hmong
- ____ Japanese
- ____ Korean
- ____ Laotian
- ____ Vietnamese
- ____ Black or African American
- ____ Filipino
- ____ Guamanian
- ____ Samoan
- ____ Tahitian
- X White

D. Year in Agriculture Program: 1st
(1st, 2nd, 3rd, 4th)

E. Grade Level in School: 9th
(9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)

- ✓ I plan a career in agriculture
- ____ Not a career, just an interest in agriculture.
- ____ Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis ( ) an occupation in agriculture you would enjoy doing.

I want to become a veterinarian

H. Date: 3/8/17

I. Locator Data
Street Address: [redacted]
City, Zip: [redacted] Stockton 95206
Phone Number: [redacted]
Email: [redacted]
Parent/Guardian Name (Print Full Name For Each):
Mr. [redacted]
Miss/Mrs./Ms. [redacted]

J. Program of Instruction Being Pursued: (Select Only One)

- ____ Plant & Soil Science (4010)
- ____ Animal Science (4020)
- ____ Agricultural Mechanics (4030)
- ____ Agricultural Business (4040)
- ____ Ornamental Horticulture (4050)
- ____ Forestry & Natural Resources (4060)
- ✓ Agriscience (4070)

K Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time ____

   No Further Education ____
   Some College Later ____

2. Go to College ____

   Community College ____
   Four Year College ✓
   Full-Time Student ✓
   Part-Time Student ____
   Agriculture Major ✓
   Non-Agriculture Major ____

3. Go Into Military Service ____

STUDENT PROGRAM PLANNING FORM

L. Planned course of study to meet occupational goal. By school year, list all classes previously [redacted] taking, [redacted] be taken in the future.

FRESHMAN YEAR School Year [redacted]	SOPHOMORE YEAR School Year [redacted]	JUNIOR YEAR School Year	SENIOR YEAR School Year
Course [redacted]	[redacted] Course	Course	Course
Spanish			
Algebra [redacted]			
English			
PLTW			
Ag Resources			
P.E.			

M. Supervised Agricultural Experience Plan (Project Program should be related to career goal).

S.A.E	Size	S.A.E	Size	S.A.E	Size	S.A.E	Size
Landscaping							
Work Experience							
Hog	1						

N. Planned Department Activity (FFA)

Attend FFA Meetings			
Sectional Activities			
Competitions			

Parents/Guardians Signature: _____

AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised 7.16.10

A. Name [redacted] [redacted]
Last Name First Name, MI

B. Gender: Male ____ Female ____

C. Ethnicity/Race:
Are you Hispanic or Latino? (Check one): Yes ____ No ____

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

- X American Indian or Alaskan Native
- ____ Asian Indian
- ____ Cambodian
- ____ Chinese
- ____ Hmong
- ____ Japanese
- ____ Korean
- ____ Laotian
- ____ Vietnamese
- ____ Black or African American
- ____ Filipino
- ____ Guamanian
- ____ Samoan
- ____ Tahitian
- X White

D. Year in Agriculture Program: 1
(1st, 2nd, 3rd, 4th)

E. Grade Level in School: 9
(9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)

- ✓ I plan a career in agriculture
- ____ Not a career, just an interest in agriculture.
- ____ Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis ( ) an occupation in agriculture you would enjoy doing.

business

H. Date: 3/18/17

I. Locator Data
Street Address: [redacted]
City, Zip: 95263
Phone Number: [redacted]
Email: [redacted]
Parent/Guardian Name (Print Full Name For Each):
Mr. [redacted]
Miss/Mrs./Ms. [redacted]

J. Program of Instruction Being Pursued: (Select Only One)

- ✓ Plant & Soil Science (4010)
- ____ Animal Science (4020)
- ____ Agricultural Mechanics (4030)
- ____ Agricultural Business (4040)
- ____ Ornamental Horticulture (4050)
- ____ Forestry & Natural Resources (4060)
- ✓ Agriscience (4070)

K Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time ✓
   - No Further Education ____
   - Some College Later ____
2. Go to College ✓
   - Community College ____
   - Four Year College ✓
   - Full-Time Student ✓
   - Part-Time Student ____
   - Agriculture Major ✓
   - Non-Agriculture Major ____
3. Go Into Military Service ____

STUDENT PROGRAM PLANNING FORM

L. Planned course of study to meet occupational goal. By school year, list all classes previously taken, currently taking, and [redacted] to be taken in the future. [redacted]

FRESHMAN YEAR School Year [redacted]	SOPHOMORE YEAR School Year	JUNIOR YEAR School Year	SENIOR YEAR School Year
Course	Course	Course	Course
English	English	English	ag gov / ag Econ
Algebra	world history	US history	Cons Math
Ag Resources	Algebra	Geometry	Vet Science
Spanish	Ag Biology	Chemistry	Expository Reading Writing required
PE	Spanish	Floral design	teacher aide
Computer ap	PE	teacher aide	Ag horticultur
			work EXP

M. Supervised Agricultural Experience Plan (Project Program should be related to career goal).

S.A.E	Size	S.A.E	Size	S.A.E	Size	S.A.E	Size
Landscaping		SAE Lambs	1				
Work Experience							

N. Planned Department Activity (FFA)

Attend FFA Meetings			
Banquet	Public speaking	Co. Ops	
	Fall harvest	Public speaking	
	Banquet	Club Camp	
		Banquet	

Parents/Guardians Signature: _____

AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised .10

A. Name [redacted]
Last Name First Name, MI

B. Gender: Male _____ Female ✓

C. Ethnicity/Race:
Are you Hispanic or Latino? (Check one): Yes ✓ No _____

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

- X American Indian or Alaskan Native
- _____ Asian Indian
- _____ Cambodian
- _____ Chinese
- _____ Hmong
- _____ Japanese
- _____ Korean
- _____ Laotian
- _____ Vietnamese
- _____ Black or African American
- _____ Filipino
- _____ Guamanian
- _____ Samoan
- _____ Tahitian
- X White

D. Year in Agriculture Program: 3rd
(1st, 2nd, 3rd, 4th)

E. Grade Level in School: 11
(9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)

- X I plan a career in agriculture
- _____ Not a career, just an interest in agriculture.
- _____ Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis ( ) an occupation in agriculture you would enjoy doing.
becoming a vet tech

H. Date: 3-8-17

I. Locator Data
Street Address: [redacted]
City, Zip: [redacted]
Phone Number: [redacted]
Email: [redacted]
Parent/Guardian Name (Print Full Name For Each):
Mr. [redacted]
Miss/Mrs./Ms. [redacted]

J. Program of Instruction Being Pursued: (Select Only One)

- _____ Plant & Soil Science (4010)
- X Animal Science (4020)
- _____ Agricultural Mechanics (4030)
- _____ Agricultural Business (4040)
- _____ Ornamental Horticulture (4050)
- _____ Forestry & Natural Resources (4060)
- _____ Agriscience (4070)

K Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time _____
   No Further Education _____
   Some College Later _____
2. Go to College X
   Community College X
   Four Year College _____
   Full-Time Student _____
   Part-Time Student _____
   Agriculture Major _____
   Non-Agriculture Major _____
3. Go Into Military Service _____

STUDENT PROGRAM PLANNING FORM

L. Planned course of study to meet occupational goal. By school year, list all classes previously taken, currently taking, and planned to be taken in the future.

FRESHMAN YEAR School Year	SOPHOMORE YEAR School Year	JUNIOR YEAR School Year	SENIOR YEAR School Year
Course	Course	Course	Course
Career Dev. / Health	Geometry	Algebra 2	
Algebra	Spanish	U.S. History	
Ag resources	English	Vet Science	
Spanish	Ag Biology	Ind. Arts	
English	History	Ch	
P.E	P.E	English	

M. Supervised Agricultural Experience Plan (Project Program should be related to career goal).

S.A.E	Size	S.A.E	Size	S.A.E	Size	S.A.E	Size
Landscaping		COW	1	lamb	1		
Work Experience							
Lamb	1						

N. Planned Department Activity (FFA)

Attend FFA Meetings			
Sectional Activities			
Competitions			
OFFICER			

Parents/Guardians Signature: _____

AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised .10

A. Name [redacted] [redacted]
Last Name First Name, MI

B. Gender: Male ____ Female ✓

C. Ethnicity/Race:
Are you Hispanic or Latino? (Check one): Yes ✓ No ____

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

✓ American Indian or Alaskan Native
____ Asian Indian
____ Cambodian
____ Chinese
____ Hmong
____ Japanese
____ Korean
____ Laotian
____ Vietnamese
____ Black or African American
____ Filipino
____ Guamanian
____ Samoan
____ Tahitian
✓ White

D. Year in Agriculture Program: 4th
(1st, 2nd, 3rd, 4th)

E. Grade Level in School: 12
(9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)

____ I plan a career in agriculture
X Not a career, just an interest in agriculture.
____ Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis ( ) an occupation in agriculture you would enjoy doing.

I would like to be a (Zoologist)

H. Date: 3/8/17

I. Locator Data
Street Address: [redacted]
City, Zip: Shafter, [redacted]
Phone Number: [redacted]
Email: [redacted]
Parent/Guardian Name (Print Full Name for Each):
Mr. [redacted]
Miss/Mrs./Ms. [redacted]

J. Program of Instruction Being Pursued: (Select Only One)

____ Plant & Soil Science (4010)
X Animal Science (4020)
____ Agricultural Mechanics (4030)
____ Agricultural Business (4040)
____ Ornamental Horticulture (4050)
____ Forestry & Natural Resources (4060)
____ Agriscience (4070)

K Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time ____
   No Further Education ____
   Some College Later ____

2. Go to College X
   Community College X
   Four Year College ____
   Full-Time Student ____
   Part-Time Student X
   Agriculture Major ____
   Non-Agriculture Major X

3. Go Into Military Service ____

STUDENT PROGRAM PLANNING FORM

L. Planned course of study to meet occupational goal. By school year, list all classes previously taken, currently taking, and planned to be taken in the future.

FRESHMAN YEAR School Year	SOPHOMORE YEAR School Year	JUNIOR YEAR School Year	SENIOR YEAR School Year
Course	Course	Course	Course
Math	Math	Spanish	Spanish
English	Biology Ag	Math	Math
health	Physical Ed.	history (us)	econ /gov
Ag science	english	Link Crew	english
Band	Band	Ag Leadrshp	vet science
Physical Ed.	history (world)	english	chem.

M. Supervised Agricultural Experience Plan (Project Program should be related to career goal).

S.A.E	Size	S.A.E	Size	S.A.E	Size	S.A.E	Size
Landscaping				Rabbit	1	Goat	1
Work Experience							

N. Planned Department Activity (FFA)

Attend FFA Meetings			
Sectional act.			
competitions			

Parents/Guardians Signature: _____

AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised 3.10

A. Name [redacted]
Last Name First Name, MI

B. Gender: Male _____ Female X

C. Ethnicity/Race:
Are you Hispanic or Latino? (Check one): Yes _____ No X

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

_____ American Indian or Alaskan Native
_____ Asian Indian
_____ Cambodian
_____ Chinese
_____ Hmong
_____ Japanese
_____ Korean
_____ Laotian
_____ Vietnamese
_____ Black or African American
_____ Filipino
_____ Guamanian
_____ Samoan
_____ Tahitian
X White

D. Year in Agriculture Program: 2nd
(1st, 2nd, 3rd, 4th)

E. Grade Level in School: 12th
(9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)

X I plan a career in agriculture
_____ Not a career, just an interest in agriculture.
_____ Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis ( ) an occupation in agriculture you would enjoy doing.

I plan to eventually to a pig breeder

H. Date: 3/8/17

I. Locator Data
Street Address: _____
City, Zip: _____
Phone Number: _____
Email: _____
Parent/Guardian Name (Print Full Name For Each):
Mr. [redacted]
Miss/Mrs./Ms. [redacted]

J. Program of Instruction Being Pursued: (Select Only One)

_____ Plant & Soil Science (4010)
X Animal Science (4020)
_____ Agricultural Mechanics (4030)
_____ Agricultural Business (4040)
_____ Ornamental Horticulture (4050)
_____ Forestry & Natural Resources (4060)
_____ Agriscience (4070)

K Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time _____

No Further Education _____
Some College Later _____

2. Go to College _____

Community College _____
Four Year College _____
Full-Time Student X
Part-Time Student _____
Agriculture Major _____
Non-Agriculture Major _____

3. Go Into Military Service _____

STUDENT PROGRAM PLANNING FORM

L. Planned course of study to meet occupational goal. By school year, list all classes previously taken, currently taking, and planned to be taken in the future.

FRESHMAN YEAR School Year	SOPHOMORE YEAR School Year	JUNIOR YEAR School Year	SENIOR YEAR School Year
Course	Course	Course	Course
Algebra	Geometry	Algebra 2	stats
English	English	English	English
Science	biology	chem	vet science
health/computer	Spanish 2	Pubic Speaking	sociology
Spanish 1	P.E.	Art	T.A.
P.E.	world history	U.S. history	government/econ

M. Supervised Agricultural Experience Plan (Project Program should be related to career goal).

S.A.E	Size	S.A.E	Size	S.A.E	Size	S.A.E	Size
Landscaping				Swine	1	Swine	1
Work Experience							

N. Planned Department Activity (FFA)

Attend FFA Meetings		Sectional meeting	
			11
		competitions	

Parents/Guardians Signature: _____

AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised 6.10

A. Name [redacted] [redacted]
Last Name First Name, MI

B. Gender: Male X Female ____

C. Ethnicity/Race:
Are you Hispanic or Latino? (Check one): Yes ____ No X

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

____ American Indian or Alaskan Native
____ Asian Indian
____ Cambodian
____ Chinese
____ Hmong
____ Japanese
____ Korean
____ Laotian
____ Vietnamese
____ Black or African American
____ Filipino
____ Guamanian
____ Samoan
____ Tahitian
X White

D. Year in Agriculture Program: 4
(1st, 2nd, 3rd, 4th)

E. Grade Level in School: 12
(9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)

____ I plan a career in agriculture
X Not a career, just an interest in agriculture.
____ Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis ( ) an occupation in agriculture you would enjoy doing.
Construction Management

H. Date: [redacted]

I. Locator Data
Street Address: [redacted]
City, Zip: Shafter 93263
Phone Number: [redacted]
Email: [redacted]
Parent/Guardian Name (Print Full Name For Each):
Mr.
Miss/Mrs./Ms. Hernandez

J. Program of Instruction Being Pursued: (Select Only One)

____ Plant & Soil Science (4010)
X Animal Science (4020)
____ Agricultural Mechanics (4030)
____ Agricultural Business (4040)
____ Ornamental Horticulture (4050)
____ Forestry & Natural Resources (4060)
____ Agriscience (4070)

K Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time ____

No Further Education ____
Some College Later ____

2. Go to College X

Community College X
Four Year College ____
Full-Time Student
Part-Time Student X
Agriculture Major ____
Non-Agriculture Major X

3. Go Into Military Service ____

STUDENT PROGRAM PLANNING FORM

L. Planned course of study to meet occupational goal. By school year, list all classes previously taken, currently taking, and planned to be taken in the future.

FRESHMAN YEAR School Year	SOPHOMORE YEAR School Year	JUNIOR YEAR School Year	SENIOR YEAR School Year
Course	Course	Course	Course
Eng 9 p	Eng 10 p	Eng	Econ / Gov
Algebra 1 p	wld history	US history	Statistics
Ag Resource ?	Geom	Alg/adv	spanish
Spanish 1 p	Ag Biology	chemistry	VCT
pe core	pe core	PubSpk / Agldr	Teacher aide
Math Educ	tech theater		

M. Supervised Agricultural Experience Plan (Project Program should be related to career goal).

S.A.E	Size	S.A.E	Size	S.A.E	Size	S.A.E	Size
Landscaping							
Work Experience				work experience 1		work experience final	1
Swine	1	swine	2	swine	2	swine	1

N. Planned Department Activity (FFA)

Attend FFA Meetings			
sectional events			
competitions			

Parents/Guardians Signature: _____

AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised .10

A. Name [redacted] [redacted]
Last Name First Name, MI

B. Gender: Male ____ Female /

C. Ethnicity/Race:
Are you Hispanic or Latino? (Check one): Yes X No ____

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

- X American Indian or Alaskan Native
- ____ Asian Indian
- ____ Cambodian
- ____ Chinese
- ____ Hmong
- ____ Japanese
- ____ Korean
- ____ Laotian
- ____ Vietnamese
- ____ Black or African American
- ____ Filipino
- ____ Guamanian
- ____ Samoan
- ____ Tahitian
- X White

D. Year in Agriculture Program: 1
(1st, 2nd, 3rd, 4th)

E. Grade Level in School: 9
(9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)

- / I plan a career in agriculture
- ____ Not a career, just an interest in agriculture.
- ____ Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis ( ) an occupation in agriculture you would enjoy doing.

I would like to become a veterinarian

H. Date: 03/08/17

I. Locator Data
Street Address: [redacted]
City, Zip: Shafter, CA 93263
Phone Number: [redacted]
Email: ____
Parent/Guardian Name (Print Full Name For Each):
Mr. [redacted]
Miss/Mrs./Ms. [redacted]

J. Program of Instruction Being Pursued: (Select Only One)

- ____ Plant & Soil Science (4010)
- / Animal Science (4020)
- ____ Agricultural Mechanics (4030)
- ____ Agricultural Business (4040)
- ____ Ornamental Horticulture (4050)
- ____ Forestry & Natural Resources (4060)
- ____ Agriscience (4070)

K Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time /
   - No Further Education ____
   - Some College Later ____
2. Go to College /
   - Community College ____
   - Four Year College /
   - Full-Time Student /
   - Part-Time Student ____
   - Agriculture Major /
   - Non-Agriculture Major ____
3. Go Into Military Service ____

STUDENT PROGRAM PLANNING FORM

L. Planned course of study to meet occupational goal. By school year, list all classes previously taken, currently taking, and planned to be taken in the future.

FRESHMAN YEAR School Year [redacted]	SOPHOMORE YEAR School Year [redacted]	JUNIOR YEAR School Year	SENIOR YEAR School Year
Course	Course	Course	Course
Algebra I			
Health			
English			
P.E.			
Spanish I			
Ag Resources			

M. Supervised Agricultural Experience Plan (Project Program should be related to career goal).

S.A.E	Size	S.A.E	Size	S.A.E	Size	S.A.E	Size
Landscaping							
Work Experience							
Lamb	1						

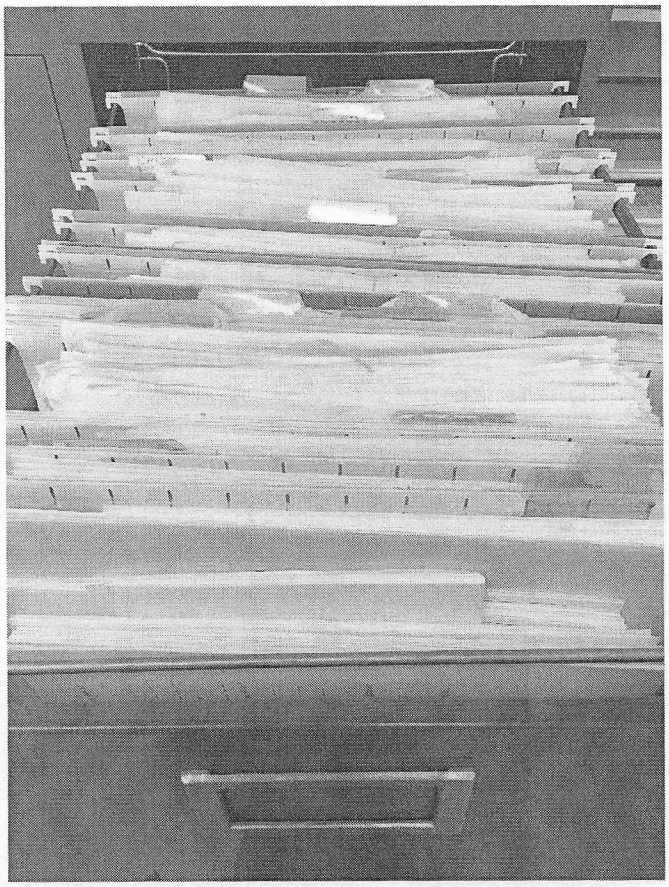
N. Planned Department Activity (FFA)

Attend FFA Meetings			
Sectional Activities			
Competitions			

Parents/Guardians Signature: _____

Student Data Files

I keep all the student files in a filing cabinet by my desk in the ag office. This year I created the files to keep track of the tests, applications, and other materials the students turn in. I do not give my students their tests back to keep. In addition to safety tests; I keep all tests and quizzes that students take in the filing cabinet. I also keep any FFA applications and paperwork in the cabinet. They are separated out by different colored folders. Yellow is for classwork and gray for FFA paperwork. I will keep the current years fair information in a binder. This includes contracts for each student, fair entries, and project visit paperwork. Once the fair is over, I will move the paperwork from the binder to the filing cabinet for reference later if need be.



Agriculture Earth Resources - General

A. *COURSE INFORMATION*

Grade Level:	9-12 Grade
Length of Course:	2 semesters
Maximum Credit:	10
Type:	
Recommendation for Enrollment:	Recommended for Freshman level students, but can be applied to all levels

B. *COURSE DESCRIPTION* ***(Include a brief explanation of the course; mention any prerequisites, including standardized test scores; and indicate whether the course satisfies a specific gradation requirement.)***

Agriculture Earth Resources is a course that meets the graduation requirement for Earth Science and is a continuing course in the agriculture education framework. The purpose of this course is to introduce students to the world of agriculture through the exploration of Earth Science. Students enrolled in this course will gain an understanding of scientific investigation and experimentation while exploring such topics as California Agriculture, Plate Tectonics, California Geology, Bio-geochemical Cycles, Earth's Atmosphere, Energy, Heat, Climate, and Astronomy. This course will also focus on an overview of the seven industry sectors of agriculture. Students enrolled in this course will be encouraged to participate in leadership training activities, public speaking events and become active members in the California Association Future Farmers of America (FFA). Participation in the FFA is part of their overall semester grade.

C. *INSTRUCTIONAL MATERIALS* ***(List the basic text – include title, edition, author, and copyright – and other essential supplementary materials or instructional resources/materials used in the course.)***

Miller and Levine, EARTH SCIENCE, Prentice Hall, copyright (2007)

Earth Science; Geology, the Environment, and the Universe, Glencoe/McGraw Hill, 2002

LEADERSHIP: Personal Development and Career Success, Second Addition, Thompson Delmar publishing, 2003

DeVere Burton and Cooper, AGRISCIENCE, 4th Edition, Thomson Delmar Publishing, 2007

Supplemental Materials

Additional materials that are not limited to, but may include:

- Computer hardware and software
- California State Agriculture Core Curriculum
- National FFA Official Manual
- FFA Student Handbooks
- California Agriculture Teacher's Association (CATA) Curricular Code
- Internet access for scientific journals and research information and interactive agriculture sites.
- Prentice Hall Earth Science Website
- Calculators
- School Farm Laboratories
- Audio / visual materials (Materials used will be those that accompany the text as well as publications by NOVA, Discovery, National Geographic, PBS, etc.)

D. ***COURSE OUTLINE*** ***(List the major content areas of the course an divide them according to the semester in which they fall. Designate the approximate amount of time given to each of the content areas. Suggested length: one page.)***

AFS = Agriculture Foundation Standards
APS = Agriculture Pathway Standards
California Adopted Earth Science Standards

Unit	Topic	Time Frame	Standards Addressed
I.	California Agriculture	2 week	APS C1.1-6
II.	Scientific Process	2 weeks	APS C13.1-3, AFS 1.2a-m, I&E 1. a-h
III.	Plate Tectonics: ocean floor features, plate boundaries, rocks	5 weeks	AFS 4.4, ES 3.a-c
IV.	FFA	3 week	AFS 1.1(10.0), AFS 2.1-4, AFS 7.0-6, AFS 9.0-6, AFS 10.1
V.	Plate Tectonics: earthquakes, volcanoes	2 weeks	ES 3.d, e
VI.	Record Keeping	2 weeks	AFS 1.1(10.0), APS C3.1-4, AFS 10.3
VII.	California Geology	2 week	APS C10.1, ES 9. a-c
VIII.	Agriculture Resources	1 week	APS C2.1-5, ES 9. 9-c
IV.	Bio-Geochemical Cycles	2 week	APS C11.5-6, ES 7. a-c
X.	Earth's Atmosphere	2 weeks	APS C10.3, ES 8. a-c
XI.	Energy and Agriculture	1 week	APS E6.1&4, ES 4. b-c
XII.	Heating the Earth's Surface	2 weeks	ES 5. a-e
XIII.	Earth's Climate	1 week	APS E2.1-6, APS F2.4, ES 6. a-c
XIV.	Astronomy	2 weeks	ES 1.a-f & 2.a-d
XV.	Soils: formation, texture, structure, erosion, and conservation of	4 weeks	APS E3.2&4
XVII	Supervised Agriculture Experience	2 weeks	APS C4.1-5, C6.1-2, C8.1-3, C9.1-5, C11.1, AFS 10.2
XVIII	Agricultural Careers and Development Events	2 weeks	AFS 3.1-6, AFS 5.0-3, AFS 11.0

E. **COURSE OBJECTIVES FOR** ***(The objectives area to include the specific, major skills or understandings which students will be able to demonstrate or acquire instruction in the course. A minimum of eight to twelve objectives should be identified for each semester of the course. Each objective is to be clearly linked to the Board adopted standards for the course or subject area; indicate the link by placing the number of the appropriate standards (s) after each objective. Minimum length: one page)***

- Specific applications of Algebra I standards (grades eight through twelve): AFS 1.1

  10.0 Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.

- Specific applications of Investigation and Experimentation standards (grades nine through twelve): AFS 1.2

  1.a Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.
  1.c Identify possible reasons for inconsistent results, such as sources of error or uncontrolled conditions.
  1.d Formulate explanations by using logic and evidence.
  1.f Distinguish between hypothesis and theory as scientific terms.
  1.j Recognize the issues of statistical variability and the need for controlled tests.
  1.l Analyze situations and solve problems that require combining and applying concepts from more than one area of science.
  1.m Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

- Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts. AFS 2.0-2.4

- Students understand how to make effective decisions, use career information, and manage personal career plans: AFS 3.0

  3.1 Know the personal qualifications, interests, aptitudes, information, and skills necessary to succeed in careers.
  3.2 Understand the scope of career opportunities and know the requirements for education, training, and licensure.
  3.3 Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.
  3.4 Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.
  3.5 Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.
  3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio.

- Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, and problem-solving techniques: AFS 5.0

  5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.

5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.
5.3 Use critical thinking skills to make informed decisions and solve problems.

- Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings: AFS 7.0

7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.
7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.
7.3 Understand the need to adapt to varied roles and responsibilities.
7.4 Understand that individual actions can affect the larger community.
7.5 Understand the importance of time management to fulfill responsibilities.
7.6 Know how to apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.

- Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution: AFS 9.0

9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.
9.2 Understand the ways in which pre-professional associations, such as the Future Farmers of America (FFA), and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.
9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.
9.4 Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.
9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.
9.6 Understand leadership, cooperation, collaboration, and effective decision-making skills applied in group or team activities, including the student organization.

- Students understand the essential knowledge and skills common to all pathways in the Agriculture and Natural Resources sector: AFS 10.0

10.1 Understand the aims, purposes, history, and structure of the FFA student organization, and know the opportunities it makes available.
10.2 Manage and actively engage in a career-related, supervised agricultural experience.
10.3 Understand the importance of maintaining and completing the California Agricultural Record Book.
10.4 Maintain and troubleshoot equipment used in the agricultural industry.

- Students understand the role of agriculture in the California economy: APS C1.0

C1.1 Understand the history of the agricultural industry in California.
C1.2 Understand how California agriculture affects the quality of life.
C1.3 Understand the interrelationship of California agriculture and society at the local, state, national, and international levels.
C1.4 Understand the economic impact of leading California agricultural commodities.
C1.5 Understand the economic impact of major natural resources in California.

C1.6 Know the economic importance of major agricultural exports and imports.

- Students understand the inter-relationship between agriculture and the environment: APS C2.0
  - C2.1 Understand important agricultural environmental impacts on soil, water, and air.
  - C2.2 Understand current agricultural environmental challenges.
  - C2.3 Understand how natural resources are used in agriculture.
  - C2.4 Compare and contrast practices for conserving renewable and nonrenewable resources.
  - C2.5 Understand how new energy sources are developed from agricultural products (e.g., gas-cogeneration and ethanol).
- Students understand the importance of animals, the domestication of animals, and the role of animals in modern society: APS C4.0
  - C4.1 Understand the evolution and roles of domesticated animals in society.
  - C4.2 Know the differences between domestication and natural selection.
  - C4.3 Understand the modern-day uses of animals and animal by-products.
  - C4.4 Understand various points of view regarding the use of animals.
  - C4.5 Understand unique and alternative uses of animals (e.g., Handi-Riders and companion animals).
- Students understand animal anatomy and systems: APS C6.0
  - C6.1 Know the names and locations of the external anatomy of animals.
  - C6.2 Know the anatomy and major functions of vertebrate systems, including digestive, reproductive, circulatory, nervous, muscular, skeletal, respiratory, and endocrine systems.
- Students understand fundamental animal nutrition and feeding: APS C8.0
  - C8.1 Know types of nutrients required by farm animals (e.g., proteins, minerals, vitamins, carbohydrates, fats/oils, water).
  - C8.2 Analyze suitable common feed ingredients, including forages, roughages, concentrates, and supplements, for ruminant, monogastric, equine, and avian digestive systems.
  - C8.3 Understand basic animal feeding guidelines and evaluate sample feeding programs for various species, including space requirements and economic considerations.
- Students understand basic animal health: APS C9.0
  - C9.1 Assess the appearance and behavior of a normal, healthy animal.
  - C9.2 Understand the ways in which housing, sanitation, and nutrition influence animal health and behavior.
  - C9.3 Understand the causes and control of common animal diseases.
  - C9.4 Understand how to control parasites and why.
  - C9.5 Understand the legal requirements for the procurement, storage, methods of application, and withdrawal times of animal medications and know proper equipment handling and disposal techniques.
- Students understand soil science principles: APS C10.0
  - C10.1 Recognize the major soil components and types.
  - C10.3 Understand water delivery and irrigation system options.
- Students understand plant growth and development: APS C11.0
  - C11.1 Understand the anatomy and functions of plant systems and structures.

C11.5 Understand the photosynthesis process and the roles of the sun, chlorophyll, sugar, oxygen, carbon dioxide, and water in the process.
C11.6 Understand the respiration process in the breakdown of food and organic matter.

- Students understand the scientific method: APS C13.0
  - C13.1 Understand the steps of the scientific method.
  - C13.2 Analyze an animal or plant problem and devise a solution based on the scientific method.
  - C13.3 Use the scientific method to conduct agricultural experiments.
- Students understand air and water use, management practices, and conservation strategies: APS E2.0
  - E2.1 Understand the government's role in regulating air, soil, and water use management practices and conservation strategies.
  - E2.2 Understand air and water conservation issues.
  - E2.3 Understand appropriate water conservation measures.
  - E2.4 Understand the component of a plan that monitors water quality.
  - E2.5 Understand the component of a plan that monitors air quality.
  - E2.6 Analyze the way in which water management affects the environment and human needs.
- Students understand soil composition and soil management: APS E3.0
  - E3.2 Understand the reasons for and importance of soil conservation.
  - E3.4 Understand how to develop and implement a soil management plan for a natural resource management area.
- Students understand aquatic resource use and management: APS E6.0
  - E6.1 Understand the different types of aquatic resources.
  - E6.4 Analyze the relationship between water quality and aquatic species habitat.
- Students understand plant physiology and growth principles: APS F2.0
  - F2.4 Understand the factors that influence plant growth, including water, nutrients, light, soil, air, and climate.
- The evidence from Earth and moon rocks indicates that the solar system was formed from a nebular cloud of dust and gas approximately 4.6 billion years ago. ES 1.b
- The evidence from geological studies of Earth and other planets suggest that the early Earth was very different from Earth today. ES 1.c
- The evidence indicating that the planets are much closer to Earth than the stars are. ES 1.d
- The Sun is a typical star and is powered by nuclear reactions, primarily the fusion of hydrogen to form helium. ES 1.e
- The evidence for the dramatic effects that asteroid impacts have had in shaping the surface of planets and their moons and in mass extinctions of life on Earth. ES 1.f
- The solar system is located in an outer edge of the disc-shaped Milky Way galaxy, which spans 100,000 light years. ES 2.a
- Galaxies are made of billions of stars and comprise most of the visible mass of the universe. ES 2.b
- The evidence indicating that all elements with an atomic number greater than that of lithium have been formed by nuclear fusion in stars. ES 2.c
- That stars differ in their life cycles and that visual, radio, and X-ray telescopes may be used to collect data that reveal those differences. ES 2.d

- Features of the ocean floor (magnetic patterns, age, and sea-floor topography) provide evidence of plate tectonics. ES 3.a
- The principal structures that form at the three different kinds of plate boundaries. ES 3.b
- How to explain the properties of rocks based on the physical and chemical conditions in which they formed, including plate tectonic processes. ES 3.c
- Why and how earthquakes occur and the scales used to measure their intensity and magnitude. ES 3.d
- There are two kinds of volcanoes: one kind with violent eruptions producing steep slopes and the other kind with voluminous lava flows producing gentle slopes. ES 3.e
- The relative amount of incoming solar energy compared with Earth's internal energy and the energy used by society. ES 4.a
- The fate of incoming solar radiation in terms of reflection, absorption, and photosynthesis. ES 4.b
- The different atmospheric gases that absorb the Earth's thermal radiation and the mechanism and significance of the greenhouse effect. ES 4.c
- How differential heating of Earth results in circulation patterns in the atmosphere and oceans that globally distribute the heat. ES 5.a
- The relationship between the rotation of Earth and the circular motions of ocean currents and air in pressure centers. ES 5.b
- The origin and effects of temperature inversions. ES 5.c
- Properties of ocean water, such as temperature and salinity, can be used to explain the layered structure of the oceans, the generation of horizontal and vertical ocean currents, and the geographic distribution of marine organisms. ES 5.d
- Rain forests and deserts on Earth are distributed in bands at specific latitudes. ES 5.e
- Weather (in the short run) and climate (in the long run) involve the transfer of energy into and out of the atmosphere. ES 6.a
- The effects on climate of latitude, elevation, topography, and proximity to large bodies of water and cold or warm ocean currents. ES 6.b
- How Earth's climate has changed over time, corresponding to changes in Earth's geography, atmospheric composition, and other factors, such as solar radiation and plate movement. ES 6.c
- The carbon cycle of photosynthesis and respiration and the nitrogen cycle. ES 7.a
- The global carbon cycle: the different physical and chemical forms of carbon in the atmosphere, oceans, biomass, fossil fuels, and the movement of carbon among these reservoirs. ES 7.b
- The movement of matter among reservoirs is driven by Earth's internal and external sources of energy. ES 7.c
- The thermal structure and chemical composition of the atmosphere. ES 8.a
- How the composition of Earth's atmosphere has evolved over geologic time and know the effect of outgassing, the variations of carbon dioxide concentration, and the origin of atmospheric oxygen. ES 8.b
- The location of the ozone layer in the upper atmosphere, its role in absorbing ultraviolet radiation, and the way in which this layer varies both naturally and in response to human activities. ES 8.c
- The resources of major economic importance in California and their relation to California's geology. ES 9.a

- The principal natural hazards in different California regions and the geologic basis of those hazards. ES 9.b
- The importance of water to society, the origins of California 's fresh water, and the relationship between supply and need. ES 9.c
- Select and use appropriate tools and technology (such as microscopes, computer-linked probes, computer software, and scientific calculators) in a safe manner.I & E 1a
- Select and use appropriate tools and technology (such as microscopes, computer-linked probes, computer software, and scientific calculators) in a safe manner.I & E 1a
- Develop hypotheses, perform tests, collect data, display data, analyze relationships, and draw conclusions in order to solve problems. I & E 1a, d, I, j
- Analyze situations and solve problems that require combining concepts from more than one area of science. I & E 1I
- How the differences and similarities among the sun, the terrestrial planets, and the gas planets may have been established during the formation of the solar system. ES 1.a

F. ***STUDENT EVALUATION STANDARDS*** ***(List the criteria on which students will be graded in the course. Give the approximate weight for each of the grading criteria in determining the student's grade, such as tests, homework, labs, class participation. Also indicate the weight given to quarter grades and semester final in tabulating the final grade.)***

Assignments and labs	60%
Assessments	30%
FFA Participation	10%

G. ***SUGGESTED INSTRUCTIONAL ACTIVITIES*** ***(This item is optional and is not required of the course of study. If it is completed, it should include teacher and/or student activities such as field trips, demonstrations, speakers, or special procedures that will assist the students in learning the course objectives.)***

Prepared by Craig Davidson, Ralph Mendes, Travis Wyrick, and Ric Lemucchi

Kern High School District
Office of Instruction

DPC#: _____
Approved by Board: _____

Agriculture Earth Resources Gate

A. COURSE INFORMATION

Grade Level:	9th Grade
Length of Course:	2 semesters
Maximum Credit:	10
Type:	
Recommendation for Enrollment:	Highly recommended for Freshman level students

B. COURSE DESCRIPTION *(Include a brief explanation of the course; mention any prerequisites, including standardized test scores; and indicate whether the course satisfies a specific gradation requirement.)*

C. Agriculture Earth Resources Gate is a course that meets the graduation requirement for Earth Science and exceeds the minimum expectations for a college prep level class. It is the first phase for advanced learners interested in the agriculture education program. The purpose of this course is to introduce students to the world of agriculture through the exploration of Earth Science. Students enrolled in this course will gain a deep understanding of scientific investigation and experimentation while exploring such topics as California Agriculture, Plate Tectonics, California Geology, Bio-geochemical Cycles, Earth's Atmosphere, Energy, Heat, Climate, and Astronomy. Students will analyze and implement data collected from lab resources using graphs, powerpoints, charts, and other technological methods.
This course will also focus on leadership development, business management through the principles of accounting and computer applications, and an overview of the seven industry sectors of agricultures. Students enrolled in this course will be encouraged to participate in leadership training activities, public speaking events and become active members in the California Association Future Farmers of America (FFA). Participation in the FFA is part of their overall semester grade.

Enrichment Activities will include in-depth hands-on research laboratories with oral presentations. They will also include analytical writing skills that correspond with the key components of the scientific method. This lab will focus primarily on Agricultural Science topics.

D. INSTRUCTIONAL MATERIALS *(List the basic text – include title, edition, author, and copyright – and other essential supplementary materials or instructional resources/materials used in the course.)*

Miller and Levine, EARTH SCIENCE, Prentice Hall, copyright (2007)

Earth Science; Geology, the Environment, and the Universe, Glencoe/McGraw Hill, 2002

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- FFA Student Handbooks
- California Agriculture Teacher's Association (CATA) Curricular Code
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- Prentice Hall Earth Science Website
- Calculators
- School Farm Laboratories
- Audio / visual materials (Materials used will be those that accompany the text as well as publications by NOVA, Discovery, National Geographic, PBS, etc.)

E. ***COURSE OUTLINE*** ***(List the major content areas of the course an divide them according to the semester in which they fall. Designate the approximate amount of time given to each of the content areas. Suggested length: one page.)***

AFS = Agriculture Foundation Standards
APS = Agriculture Pathway Standards
California Adopted Earth Science Standards

Unit	Topic	Time Frame	Standards Addressed
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III.	Plate Tectonics: ocean floor features, plate boundaries, rocks	5 weeks	AFS 4.4, ES 3.a-c
IV.	FFA	3 week	AFS 1.1(10.0), AFS 2.1-4, AFS 7.0-6, AFS 9.0-6, AFS 10.1
V.	Plate Tectonics: earthquakes, volcanoes	2 weeks	ES 3.d, e
VI.	Record Keeping	2 weeks	AFS 1.1(10.0), APS C3.1-4, AFS 10.3
VII.	California Geology	2 week	APS C10.1, ES 9. a-c
VIII.	Agriculture Resources	1 week	APS C2.1-5, ES 9. 9-c
IV.	Bio-Geochemical Cycles	2 week	APS C11.5-6, ES 7. a-c
X.	Earth's Atmosphere	2 weeks	APS C10.3, ES 8. a-c
XI.	Energy and Agriculture	1 week	APS E6.1&4, ES 4. b-c
XII.	Heating the Earth's Surface	2 weeks	ES 5. a-e
XIII.	Earth's Climate	1 week	APS E2.1-6, APS F2.4, ES 6. a-c
XIV.	Astronomy	2weeks	ES 1.a-f & 2.a-d

XV.	Soils: formation, texture, structure, erosion, and conservation of	4 weeks	APS E3.2&4
XVII	Supervised Agriculture Experience	2 weeks	APS C4.1-5, C6.1-2, C8.1-3, C9.1-5, C11.1, AFS 10.2
XVIII	Agricultural Careers and Development Events	2 weeks	AFS 3.1-6, AFS 5.0-3, AFS 11.0

F. ***COURSE OBJECTIVES FOR*** ***(The objectives area to include the specific, major skills or understandings which students will be able to demonstrate or acquire instruction in the course. A minimum of eight to twelve objectives should be identified for each semester of the course. Each objective is to be clearly linked to the Board adopted standards for the course or subject area; indicate the link by placing the number of the appropriate standards (s) after each objective. Minimum length: one page)***

- Specific applications of Algebra I standards (grades eight through twelve): AFS 1.1

  10.0 Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.

- Specific applications of Investigation and Experimentation standards (grades nine through twelve): AFS 1.2

  1.a Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.
  1.c Identify possible reasons for inconsistent results, such as sources of error or uncontrolled conditions.
  1.d Formulate explanations by using logic and evidence.
  1.f Distinguish between hypothesis and theory as scientific terms.
  1.j Recognize the issues of statistical variability and the need for controlled tests.
  1.l Analyze situations and solve problems that require combining and applying concepts from more than one area of science.
  1.m Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

- Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts. AFS 2.0-2.4

- Students understand how to make effective decisions, use career information, and manage personal career plans: AFS 3.0

  3.1 Know the personal qualifications, interests, aptitudes, information, and skills necessary to succeed in careers.
  3.2 Understand the scope of career opportunities and know the requirements for education, training, and licensure.
  3.3 Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.
  3.4 Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.
  3.5 Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.
  3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio.

- Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, and problem-solving techniques: AFS 5.0
    - 5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.
    - 5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.
    - 5.3 Use critical thinking skills to make informed decisions and solve problems.
- Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings: AFS 7.0
    - 7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.
    - 7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.
    - 7.3 Understand the need to adapt to varied roles and responsibilities.
    - 7.4 Understand that individual actions can affect the larger community.
    - 7.5 Understand the importance of time management to fulfill responsibilities.
    - 7.6 Know how to apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.
- Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution: AFS 9.0
    - 9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.
    - 9.2 Understand the ways in which pre-professional associations, such as the Future Farmers of America (FFA), and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.
    - 9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.
    - 9.4 Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.
    - 9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.
    - 9.6 Understand leadership, cooperation, collaboration, and effective decision-making skills applied in group or team activities, including the student organization.
- Students understand the essential knowledge and skills common to all pathways in the Agriculture and Natural Resources sector: AFS 10.0
    - 10.1 Understand the aims, purposes, history, and structure of the FFA student organization, and know the opportunities it makes available.
    - 10.2 Manage and actively engage in a career-related, supervised agricultural experience.
    - 10.3 Understand the importance of maintaining and completing the California Agricultural Record Book.
    - 10.4 Maintain and troubleshoot equipment used in the agricultural industry.
- Students understand the role of agriculture in the California economy: APS C1.0
    - C1.1 Understand the history of the agricultural industry in California.
    - C1.2 Understand how California agriculture affects the quality of life.

C1.3 Understand the interrelationship of California agriculture and society at the local, state, national, and international levels.
C1.4 Understand the economic impact of leading California agricultural commodities.
C1.5 Understand the economic impact of major natural resources in California.
C1.6 Know the economic importance of major agricultural exports and imports.

- Students understand the inter-relationship between agriculture and the environment: APS C2.0
  - C2.1 Understand important agricultural environmental impacts on soil, water, and air.
  - C2.2 Understand current agricultural environmental challenges.
  - C2.3 Understand how natural resources are used in agriculture.
  - C2.4 Compare and contrast practices for conserving renewable and nonrenewable resources.
  - C2.5 Understand how new energy sources are developed from agricultural products (e.g., gas-cogeneration and ethanol).
- Students understand the importance of animals, the domestication of animals, and the role of animals in modern society: APS C4.0
  - C4.1 Understand the evolution and roles of domesticated animals in society.
  - C4.2 Know the differences between domestication and natural selection.
  - C4.3 Understand the modern-day uses of animals and animal by-products.
  - C4.4 Understand various points of view regarding the use of animals.
  - C4.5 Understand unique and alternative uses of animals (e.g., Handi-Riders and companion animals).
- Students understand animal anatomy and systems: APS C6.0
  - C6.1 Know the names and locations of the external anatomy of animals.
  - C6.2 Know the anatomy and major functions of vertebrate systems, including digestive, reproductive, circulatory, nervous, muscular, skeletal, respiratory, and endocrine systems.
- Students understand fundamental animal nutrition and feeding: APS C8.0
  - C8.1 Know types of nutrients required by farm animals (e.g., proteins, minerals, vitamins, carbohydrates, fats/oils, water).
  - C8.2 Analyze suitable common feed ingredients, including forages, roughages, concentrates, and supplements, for ruminant, monogastric, equine, and avian digestive systems.
  - C8.3 Understand basic animal feeding guidelines and evaluate sample feeding programs for various species, including space requirements and economic considerations.
- Students understand basic animal health: APS C9.0
  - C9.1 Assess the appearance and behavior of a normal, healthy animal.
  - C9.2 Understand the ways in which housing, sanitation, and nutrition influence animal health and behavior.
  - C9.3 Understand the causes and control of common animal diseases.
  - C9.4 Understand how to control parasites and why.
  - C9.5 Understand the legal requirements for the procurement, storage, methods of application, and withdrawal times of animal medications and know proper equipment handling and disposal techniques.
- Students understand soil science principles: APS C10.0
  - C10.1 Recognize the major soil components and types.

C10.3 Understand water delivery and irrigation system options.

- Students understand plant growth and development: APS C11.0
  - C11.1 Understand the anatomy and functions of plant systems and structures.
  - C11.5 Understand the photosynthesis process and the roles of the sun, chlorophyll, sugar, oxygen, carbon dioxide, and water in the process.
  - C11.6 Understand the respiration process in the breakdown of food and organic matter.
- Students understand the scientific method: APS C13.0
  - C13.1 Understand the steps of the scientific method.
  - C13.2 Analyze an animal or plant problem and devise a solution based on the scientific method.
  - C13.3 Use the scientific method to conduct agricultural experiments.
- Students understand air and water use, management practices, and conservation strategies: APS E2.0
  - E2.1 Understand the government's role in regulating air, soil, and water use management practices and conservation strategies.
  - E2.2 Understand air and water conservation issues.
  - E2.3 Understand appropriate water conservation measures.
  - E2.4 Understand the component of a plan that monitors water quality.
  - E2.5 Understand the component of a plan that monitors air quality.
  - E2.6 Analyze the way in which water management affects the environment and human needs.
- Students understand soil composition and soil management: APS E3.0
  - E3.2 Understand the reasons for and importance of soil conservation.
  - E3.4 Understand how to develop and implement a soil management plan for a natural resource management area.
- Students understand aquatic resource use and management: APS E6.0
  - E6.1 Understand the different types of aquatic resources.
  - E6.4 Analyze the relationship between water quality and aquatic species habitat.
- Students understand plant physiology and growth principles: APS F2.0
  - F2.4 Understand the factors that influence plant growth, including water, nutrients, light, soil, air, and climate.
- The evidence from Earth and moon rocks indicates that the solar system was formed from a nebular cloud of dust and gas approximately 4.6 billion years ago. ES 1.b
- The evidence from geological studies of Earth and other planets suggest that the early Earth was very different from Earth today. ES 1.c
- The evidence indicating that the planets are much closer to Earth than the stars are. ES 1.d
- The Sun is a typical star and is powered by nuclear reactions, primarily the fusion of hydrogen to form helium. ES 1.e
- The evidence for the dramatic effects that asteroid impacts have had in shaping the surface of planets and their moons and in mass extinctions of life on Earth. ES 1.f
- The solar system is located in an outer edge of the disc-shaped Milky Way galaxy, which spans 100,000 light years. ES 2.a
- Galaxies are made of billions of stars and comprise most of the visible mass of the universe. ES 2.b

- The evidence indicating that all elements with an atomic number greater than that of lithium have been formed by nuclear fusion in stars. ES 2.c
- That stars differ in their life cycles and that visual, radio, and X-ray telescopes may be used to collect data that reveal those differences. ES 2.d
- Features of the ocean floor (magnetic patterns, age, and sea-floor topography) provide evidence of plate tectonics. ES 3.a
- The principal structures that form at the three different kinds of plate boundaries. ES 3.b
- How to explain the properties of rocks based on the physical and chemical conditions in which they formed, including plate tectonic processes. ES 3.c
- Why and how earthquakes occur and the scales used to measure their intensity and magnitude. ES 3.d
- There are two kinds of volcanoes: one kind with violent eruptions producing steep slopes and the other kind with voluminous lava flows producing gentle slopes. ES 3.e
- The relative amount of incoming solar energy compared with Earth's internal energy and the energy used by society. ES 4.a
- The fate of incoming solar radiation in terms of reflection, absorption, and photosynthesis. ES 4.b
- The different atmospheric gases that absorb the Earth's thermal radiation and the mechanism and significance of the greenhouse effect. ES 4.c
- How differential heating of Earth results in circulation patterns in the atmosphere and oceans that globally distribute the heat. ES 5.a
- The relationship between the rotation of Earth and the circular motions of ocean currents and air in pressure centers. ES 5.b
- The origin and effects of temperature inversions. ES 5.c
- Properties of ocean water, such as temperature and salinity, can be used to explain the layered structure of the oceans, the generation of horizontal and vertical ocean currents, and the geographic distribution of marine organisms. ES 5.d
- Rain forests and deserts on Earth are distributed in bands at specific latitudes. ES 5.e
- Weather (in the short run) and climate (in the long run) involve the transfer of energy into and out of the atmosphere. ES 6.a
- The effects on climate of latitude, elevation, topography, and proximity to large bodies of water and cold or warm ocean currents. ES 6.b
- How Earth's climate has changed over time, corresponding to changes in Earth's geography, atmospheric composition, and other factors, such as solar radiation and plate movement. ES 6.c
- The carbon cycle of photosynthesis and respiration and the nitrogen cycle. ES 7.a
- The global carbon cycle: the different physical and chemical forms of carbon in the atmosphere, oceans, biomass, fossil fuels, and the movement of carbon among these reservoirs. ES 7.b
- The movement of matter among reservoirs is driven by Earth's internal and external sources of energy. ES 7.c
- The thermal structure and chemical composition of the atmosphere. ES 8.a
- How the composition of Earth's atmosphere has evolved over geologic time and know the effect of outgassing, the variations of carbon dioxide concentration, and the origin of atmospheric oxygen. ES 8.b

- The location of the ozone layer in the upper atmosphere, its role in absorbing ultraviolet radiation, and the way in which this layer varies both naturally and in response to human activities. ES 8.c
- The resources of major economic importance in California and their relation to California's geology. ES 9.a
- The principal natural hazards in different California regions and the geologic basis of those hazards. ES 9.b
- The importance of water to society, the origins of California 's fresh water, and the relationship between supply and need. ES 9.c
- Select and use appropriate tools and technology (such as microscopes, computer-linked probes, computer software, and scientific calculators) in a safe manner.I & E 1a
- Select and use appropriate tools and technology (such as microscopes, computer-linked probes, computer software, and scientific calculators) in a safe manner.I & E 1a
- Develop hypotheses, perform tests, collect data, display data, analyze relationships, and draw conclusions in order to solve problems. I & E 1a, d, I, j
- Analyze situations and solve problems that require combining concepts from more than one area of science. I & E 1I
- How the differences and similarities among the sun, the terrestrial planets, and the gas planets may have been established during the formation of the solar system. ES 1.a

G. ***STUDENT EVALUATION STANDARDS*** ***(List the criteria on which students will be graded in the course. Give the approximate weight for each of the grading criteria in determining the student's grade, such as tests, homework, labs, class participation. Also indicate the weight given to quarter grades and semester final in tabulating the final grade.)***

Assignments and labs	60%
Assessments	30%
FFA Participation	10%

H. ***SUGGESTED INSTRUCTIONAL ACTIVITIES*** ***(This item is optional and is not required of the course of study. If it is completed, it should include teacher and/or student activities such as field trips, demonstrations, speakers, or special procedures that will assist the students in learning the course objectives.)***

Prepared by Craig Davidson, Ralph Mendes, Travis Wyrick, and Ric Lemucchi

Kern High School District
Office of Instruction

DPC#: _3252_____
Approved by Board: _____

District Wide Course of Study Title:

Ag Veterinary Science P

A. COURSE INFORMATION

Grade Level:	**11-12**
Length of Course:	**1 Year (2 Semesters)**
Maximum Credit:	**10**
Type:	**College Prep, U.C. Approved- D**
Recommendation for Enrollment:	**Enrollment in Agriculture Program with prior completion of Agriculture Biology with Algebra 1 strongly recommended.**

B. COURSE DESCRIPTION *(Include a brief explanation of the course; mention any prerequisites, including standardized test scores; and indicate whether the course satisfies a specific gradation requirement.)*

The Veterinary Science course is designed to provide students with an opportunity to investigate different aspects of the animal health and care occupations, or to continue on in post-secondary education in the animal science field. This content of this course will include: job-search skills, comparative anatomy and physiology, animal reproduction, animal inheritance and selection principles, basic pet grooming skills, animal restraint, nutrition and housing, medical terminology, animal welfare concerns, production practices for large and small animals, production of small animals, how animal products and by-products are processed and marketed, species and breed identification, and disease control/management. This course will also combine fundamentals of academics to include communications, career planning and management, technology, problem solving and critical thinking, health and safety practices, ethics as well as legal responsibilities, leadership development and team work through active participation in the FFA, personal responsibility and flexibility as it applies to specific job skills.

This course carries five units of Life Science credit that meets the high school graduation requirements for each semester completed.

C. INSTRUCTIONAL MATERIALS *(List the basic text – include title, edition, author, and copyright – and other essential supplementary materials or instructional resources/materials used in the course.)*

BOARD-ADOPTED TEXTBOOKS:

Introduction to Veterinary Science, 2nd Edition, MeeCee Baker and James B. Lawhead, Thomson Delmar Learning, 2009

An Illustrated Guide to Veterinary Medical terminology, Janet Amundson Romich, Thomson Delmar Learning, 2005

Small Animal Care and Management, Dean M. Warren, Delmar Publishers, 1995

SUPPLEMENTARY INSTRUCTIONAL MATERIALS:

Laboratory manuals and laboratory equipment

Additional materials that are not limited to, but may include:

- All supplemental material utilized by pet groomers, veterinary assistants, and veterinary clinics including; principle tools used in surgery, dissection, necropsy, and postmortem exams. Grooming sheers, and biohazard waste removal.
- Computer hardware and software, calculators, probe ware.
- Internet access for scientific journals and research information and interactive agriculture web sites.
- Audio / visual materials (Materials used will be those that accompany the text as well as publications by NOVA, Discovery, National Geographic, PBS, etc.)

D. ***COURSE OUTLINE*** ***(List the major content areas of the course an divide them according to the semester in which they fall. Designate the approximate amount of time given to each of the content areas. Suggested length: one page.)***

Unit	Topic	Bio/Life Science Standards Addressed	CTE/Ag Standards Addressed
1.	**Careers in Animal Care**		F1.3-12.4.3, F2.1-2.7, F2.2-2.5, F2.2-1.3, F2.2-1.7, F2.2-2.5, F2.4-1.1, F2.4-2.3, F3.0, F7.0-7.6, F8.3, F9.1, F9.2, F10.2, F11.0
2.	**Laws and Animal Regulations**		D1.4, D9.2, D9.3, D10.2, D12.0, F1.3-12.2.3, F6.1, F8.1, F8.2, F8.3, F9.4, F11.0, FD8.3,
3.	**HACCP Ethics Training**		D6.5, D9.3, D9.4, D12.1, F6.1, F6.2, F9.4, F11.0
4.	**Animal Handling:** Restraint, Transport, Disposal and Harvest		D1.3, D1.4, D9.2, D9.4, D12.1, D12.2, D12.3, D12.4, D12.5, D12.6, F1.3-12.2, F8.1, F8.2,F11.0, FD8.1, FD8.2
5.	**Animal Behavior and Observation**	BI 1.d, BI 1.a	D5.1, D9.1, D9.2, D10.1, D11.3, F5.1, F5.2, F5.3, F11.0
6.	**Animal Health**: Management,	BI 1.l	D1.1, D1.2, D3.2, D6.4,

	Prevention, Housing		D9.2, D10.1, D11.3, F2.2-2.3, F5.1, F5.2, F5.3, F8.1, F11.0
7.	**Animal Breed Identification**		D5.0
8.	**Introduction to Small & Specialty Animals**		D10.1, D10.2, D11.1, D11.2, D11.4, F11.0
9.	**Basic Animal Nutrition:** Ruminant, Monogastric, Avian, Equine	BI 1.g, BI 1.e, BI 4.e, BI 4.f,	D2.2, D2.3, D2.4, D3.1, D9.2, D10.1, D11.2, D11.3, F11.0
10.	**Animal Anatomy/Physiology**	BI 1.j, BI 2.a, BI 9.a, BI 9.b, BI 9.c, BI 9.d, BI 9.e, BI 9.f, BI 9.g, BI 9.i,	D2.3, D2.4, D3.1, D3.2 D4.0, F11.0
11.	**Introduction to Basic Pet Grooming**		D1.4, F2.4-1.1, F5.1, F5.2, F5.3, F.6, F8.2, F8.3, F9.5, F9.3, F11.0
12.	**Introduction to Diseases and Control** , Non Living and Living Agents, Spread of Disease, Elimination, Protection Against, First and Secondary Lines of Defense	BI 1.c, BI 10.a, BI 10.b, BI 10.c, BI 10.d	D6.1, D6.2, D6.3, D6.4, D6.5, D6.6, D6.7, F2.1-2.3, F5.1, F11.0
13.	**Common Diseases:** Parasites, Viral, Bacterial, Fungal, Protozoan, Zoonotic, Nutritional disease, Poison, Stress and Heredity	BI 1.c, BI 10.a, BI 10.b, BI 10.c, BI 10.d	D2.2, D6.3, D6.6, F2.4-1.7, F11.0
14.	**Normal Values:** Temperature, Pulse, Breathing and Respiration, Skin, Membranes, Intestinal Discharge	BI 1.j, BI 10.a,	D3.1, F4.0-4.6, F6.5, F11.0
15.	**Pharmacology:** Route of Administration, Measurement, Storage, Size and Shape of Needles and Syringes, Common Drugs, Prescription Requirements	BI 5.a	F1.1-10.0, F1.1-13.0, F1.1-15.0, F1.1-8.0, F4.0-4.6 , F6.2, F6.4, F6.5, F6.6, F8.1-F8.3, F11.0
16.	**Emergency Procedures:** First Responders Kit, Splint techniques, Wound packing		D1.4, F4.0-4.6, F6.6, F9.6, F11.0
17.	**Common Surgical Procedures:** Aseptic technique, Surgical preparation, Castration, Abscesses, Dentistry, Suture technique	BI 1.a, BI 10.e	F4.0-4.6, F6.4, F6.5, F6.6, F8.1-F8.3, F11.0
18.	**Laboratory Procedures:** Microscope use, Equipment Identification, Collecting and Handling Specimens	BI 1.j, BI 1.c, BI 1.d, BI 1.e, BI 1.f	D1.4, D4.4, D6.1, D9.3, F1.2-1.a, F1.2-1.c, F1.2-1.d, F1.2-1.j, F1.2-1.m, F2.1-2.8, F2.2-1.1, F2.2-1.2, F2.3-1.1, F2.2-1.2, F2.2-1.3, F6.4, F6.5, F6.6,
19.	**Reproductive Processes:**	BI 2.a, BI 2.b, BI 2.d, BI	D4.1, D4.2, D4.3, D4.4,

	Gestation, Parturition, Artificial insemination, Embryo transfer	2.e, BI 2.f, BI 2.g, BI 3.a, BI 3.b, BI 3.c, BI 3.d	D4.5, D5.1, D5.2, D5.4

E. **COURSE OBJECTIVES FOR** ***(The objectives area to include the specific, major skills or understandings which students will be able to demonstrate or acquire instruction in the course. A minimum of eight to twelve objectives should be identified for each semester of the course. Each objective is to be clearly linked to the Board adopted standards for the course or subject area; indicate the link by placing the number of the appropriate standards (s) after each objective. Minimum length: one page)***

The student will:

1. Identify the attitude and behavior of healthy animals
2. Recognize the normal skin and mucus membrane color of domestic animals and relate them to specific cases.
3. Monitor temperature, pulse and respiration of animals, and compare the monitored animal to that of the normal animal.
4. Interpret the effects of environmental conditions that relate to temperature, pulse, and respiration.
5. Write an essay on the disease concept of animal health.
6. Design a housing facility for small or large animals that provides for a healthy environment.
7. Demonstrate the need for a balanced diet in animals by balancing a ration.
8. Distinguish between sound and unsound animal disease management techniques.
9. Demonstrate the need for proper sanitation and disinfect ion of an animal's environment by taking bacterial cultures and analyzing the samples
10. Develop and apply a sanitation and disinfection regime for large animals.
11. Identify and analyze the specific structures found in cells of the animal body.
12. Recognize the characteristics of epithelium, connective and muscle tissue by microscopic observation.
13. Differentiate among the functions of the digestive, circulatory, respiratory and excretory systems.
14. Distinguish between the living and non-living causes of disease in animals.
15. Identify the life cycles of bacteria, fungi, viruses, and protozoa's.
16. Classify the various means by which diseases are spread in an environment.
17. Cite the way in which an animal develops resistance and immunity to pathogenic organisms.
18. Contrast the primary and secondary defense mechanism of an animal's body.
19. Identify, by structure, the differences among Diplococcic, Staphylococcus and Streptococcus bacteria.
20. Explain how a change in environmental conditions might alter the growth of a bacterium.
21. Compare and contrast Bovine Mastitis and Blackleg in a written review.
22. Identify by classification Poxviruses, Herepsviruses, Reoviruses, and Corona viruses and determine a common disease caused by each virus.
23. Outline a common method by which a livestock producer could control diseases caused by viruses.
24. Prepare a written report on either Rabies or Canine Distemper.
25. Recognize the effects that internal and external parasites taking in consideration the parasite's life cycle.
26. Identify by gross observation the physical differences among ticks, fleas, flies, lice and mites.

27. Develop a method for control of common external parasites taking in consideration the parasite's life cycle.
28. Discriminate, by gross examination, the characteristics of Nematodes, Cestodes and Trematodes.
29. Outline a viable program for internal parasites and diseases.
30. Extrapolate upon the relationship of internal parasites and diseases.
31. Explain the importance of proteins, vitamins and minerals as they relate to tissue building' by nutritional experimentation.
32. Formulate a balanced ration that can be fed to either small or large animals.
33. Discriminate between symptoms of a poisoned animal and that of a parasitized animal.
34. Calculate the proper dosage of a medication to be prescribed for a large or small animal.
35. Identify environmental, nutritional and pathogenic stressors that might lower an animal's resistance to disease.
36. Develop a management technique for receiving young transported animals.
37. Recognize the importance that heredity plays in congenital diseases by using mathematical equations.
38. Research the hormone and identify where the hormone is released and its target organ.
39. Research a hormone and explain the effects it has on the animals' body.
40. Dissect the reproductive tract of the cow and be able to identify and explain the function of each part.
41. Be able to remove semen from a semen tank and properly thaw the semen and prepare it for artificial insemination.

In addition to the above standards the students will reinforce the following concepts from the NCLB standards:

1. Describe the levels of organization of a mammal's body in terms of cells, tissues, organs and organ systems.
2. Explain the physiology of muscle contraction.
3. Dissect the digestive system of the porcine species, name the parts, and elate the parts to their function.
4. Explain the role of enzymes in chemical reactions.
5. Name the six nutrients and the function in an animal's body.
6. Explain how the posture and stance of an animal is an indication of its health.
7. Explain how the color of an animal's mucus membranes relates to the normal functioning of blood.
8. Take the rectal temperature of a mammal and compare it to the norm for the species.
9. Count the respiration rate of a sheep and determine if the animal is breathing at a normal rate.
10. Explain the mechanics of breathing.
11. Plan a regime for tile receiving of livestock as it relates to maintaining animal health.
12. Outline proper sanitation techniques that will help to ensure animal health.
13. Identify the parts of an animal cell.
14. Differentiate the functions of the digestive, circulatory and respiratory systems.
15. Explain how animals acquire diseases.
16. Explain how bacteria, viruses and internal and external parasites are related to diseases in mammals.
17. Identify stressors in an animal's environment.
18. Describe the relationship of heredity and congenital diseases.

F. **STUDENT EVALUATION STANDARDS** ***(List the criteria on which students will be graded in the course. Give the approximate weight for each of the grading criteria in determining the student's grade, such as tests, homework, labs, class participation. Also indicate the weight given to quarter grades and semester final in tabulating the final grade.)***

These objectives may be measured by one or more of the following:

a. common unit pre/post assessments
b. KHSD District benchmark assessments
c. teachers' tests
d. standardized tests
e. class assignments, activities, and research projects
f. FFA participation
g. students writings and/or portfolios
h. homework
i. audio-visual media presentations
j. authentic laboratory assessment

Assessment Criteria

Grading Scale:

A = 90-100%
B = 80-90%
C = 70- 79%
D = 60 - 69%
F = 0 - 59%

Quarter Grade Determination:

ASSIGNMENT	CODE	% WEIGHT
Assignments	ASMT	20%
Labs/Activities	LBS	25%
Tests/Quizzes	TST	45%
FFA	FFA	10%
	TOTAL	**100%**

Semester Grade Determination:

Combination of Quarter 1 and 2 90%
Final Exam: 10%

G. **SUGGESTED INSTRUCTIONAL ACTIVITIES** ***(This item is optional and is not required of the course of study. If it is completed, it should include teacher and/or student activities such as field trips, demonstrations, speakers, or special procedures that will assist the students in learning the course objectives.)***

Suggested Laboratory Assignments:

- Handling animals
- Lab equipment ID-Specialty Animal Career Development Event
- Drug and Chemical Storage and Handling
- Injection practices
- Sutures lab
- Proper daily animal care

- Vaccination procedures
- Reproductive physiology lab
- Equine leg dissection
- Radiology reading lab
- Structure of the tendon lab
- Heart rate and vital lab
- Cancer biopsy tissue lab
- Heart dissection
- Ovarian Hysterectomy
- Livestock Castration
- Postmortem Necropsy

Which assignment types would you like to use?

- ○ Only Show My Types
- ◉ Add My Types to the District Types

Assignment Type	Weight (%)	Drop Scores	Default Points Possible	Display Color
Assignment	20	0	1.00	Assignment
Attendance/Participation	0	0	1.00	Attendance/Participation
Cognitive Assessments	0	0	1.00	Cognitive Assessments
FFA/SAE	20	0	1.00	FFA/SAE
Homework	0	0	1.00	Homework
Personal Fitness	0	0	1.00	Personal Fitness
Project	40	0	1.00	Project
Quiz	10	0	1.00	Quiz
Test	10	0	1.00	Test

Also apply the above weighting settings to the following classes

Select All Classes: ☐

Semester 2

☐ (S1) Nichols, T AG RESOURCEP(1) SEC:3132-1-0001

☐ Allow class weighting to be set up by grading period

Which assignment types would you like to use?

- Only Show My Types
- Add My Types to the District Types

Assignment Type	Weight (%)	Drop Scores	Default Points Possible	Display Color
Assignment	20	0	1.00	Assignment
Attendance/Participation	0	0	1.00	Attendance/Participation
Cognitive Assessments	0	0	1.00	Cognitive Assessments
FFA/SAE	20	0	1.00	FFA/SAE
Homework	0	0	1.00	Homework
Personal Fitness	0	0	1.00	Personal Fitness
Project	40	0	1.00	Project
Quiz	10	0	1.00	Quiz
Test	10	0	1.00	Test

Also apply the above weighting settings to the following classes

Allow class weighting to be set up by grading period

Select All Classes:

Semester 1

(S1) Nichols, T AG RESOURCEP(2) SEC:3132-2-0001

Student	Grade	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Ag Commodities Final MAX:210.00 PTS:210.00 12/18/2016 Project	Rock Cycle Poster MAX:30.00 PTS:30.00 12/12/2016 Project	Soil Map Lab MAX:10.00 PTS:10.00 12/12/2016 Project	Calagon Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Ribbon Test Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Soil Triangle Packet MAX:41.00 PTS:41.00 12/12/2016 Assignment	FFA Emblem MAX:30.00 PTS:30.00 12/12/2016 Assignment	5.3 Mass Movements MAX:10.00 PTS:10.00 12/12/2016 Assignment	Soils Worksheet MAX:10.00 PTS:10.00 12/12/2016 Assignment
528880	58.9 F	0	160	0	10	18	20	41	30	0	0
534891	87.6 B	2	195	30	10	20	20	41	30	10	0
528833	86.6 B	2	222	30	10	20	20	41	30	0	10
528915	33.5 F	0	200	30		0	0	0	0	0	0
528793	71.4 C	1	160	30	10	0		0	30	0	10
523645	74.7 C	0	200	30	10	0	20	0	30	0	10
528826	79.9 C	0	160	30		0	20	41	30	0	10
528834	30.2 F	0	90	30	0	0	0	0		0	0
529025	81.2 B	4	210	0	10	20	20	41	30	0	0
534840	81.0 B	0	200	20				0		0	0
527279	47.5 F	0	0	20	10	18	20	0	30	0	0
529064	84.8 B	4	215	30	10	20	20	41	30	10	10
528882	96.3 A	3	220	30		20	20	41		0	10
534855	91.4 A	4	222	30	10	15	20	41	30	10	10
529072	92.7 A	4	222	30	10	18	20	41	30	10	10
528820	96.6 A	4	217	30	10	18	20	41	30	10	0
528986	82.8 B	4	212	20	10	18	20	40	30	0	10
528829	80.0 B	0	190	30	10	20	20	39	30	0	0
534862	37.9 F	0	0	30	0	0	0	0		0	0
523640	74.6 C	0	155	20		0	20	0	30	0	0
528983	44.1 F	0	190	0	10	18	20	41	30	0	0
528780	51.6 F	0	0	0	10	0	0	0	30	0	0
534879	72.2 C	2	155	0	10	18	18	0	30	0	0

Student	Grade	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Ag Commodities Final MAX:210.00 PTS:210.00 12/18/2016 Project	Rock Cycle Poster MAX:30.00 PTS:30.00 12/12/2016 Project	Soil Map Lab MAX:10.00 PTS:10.00 12/12/2016 Project	Calagon Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Ribbon Test Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Soil Triangle Packet MAX:41.00 PTS:41.00 12/12/2016 Assignment	FFA Emblem MAX:30.00 PTS:30.00 12/12/2016 Assignment	5.3 Mass Movements MAX:10.00 PTS:10.00 12/12/2016 Assignment	Soils Worksheet MAX:10.00 PTS:10.00 12/12/2016 Assignment
528896	46.6 F	1	0	20	10	0	0	0	30	0	0
529081	86.4 B	4	190	30	10	18	20	0	30	0	0
527275	90.4 A	4	230	0	10	18	20	38	30	0	0
528858	89.8 B	4	215	30	10	20	20	41	30	0	10
528794	57.2 F	0	182	0	10	18	20	0	30	0	0
528918	90.5 A	2	210	20	10	20	20	40		0	10
529124	97.9 A	4	222	30	10	18	20	41	30	10	10
529019	82.0 B	4	222	20	10	0	20	0	30	0	0
529188	79.3 C	3	137	30	10			41	30	0	0
529102	91.2 A	4	222	30	10		20	41	30	0	10
534859	65.3 D	0	172	0	10	0		41	30	10	0

Student	Grade	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Ag Commodities Final MAX:210.00 PTS:210.00 12/18/2016 Project	Rock Cycle Poster MAX:30.00 PTS:30.00 12/12/2016 Project	Soil Map Lab MAX:10.00 PTS:10.00 12/12/2016 Project	Calagon Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Ribbon Test Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Soil Triangle Packet MAX:41.00 PTS:41.00 12/12/2016 Assignment	FFA Emblem MAX:30.00 PTS:30.00 12/12/2016 Assignment	5.3 Mass Movements MAX:10.00 PTS:10.00 12/12/2016 Assignment	Soils Worksheet MAX:10.00 PTS:10.00 12/12/2016 Assignment
534960	87.9 B	4	202	30	10	20	20	41	30	10	0
534894	98.0 A	4	222	30	10	20	20	41	30	0	10
529002	91.1 A	4	219	30			20	41	30	10	10
528904	54.8 F	0	0	0	0		20	0	0	0	0
536896	46.6 F	3	210	0	10	0	0	0	0	0	0
537196	91.6 A	4	200	30	10	20	20	41		10	10
529009	72.8 C	3	170	30	10	0	20	0	30	0	0
528811	69.2 D	4	145	30		0	0	0	0	0	0
528791	94.4 A	4	210	30	10	18	20	41	0	0	10
528784	97.0 A	4	230	30	10	20	20	41	30	10	10
528992	83.0 B	3	190	0	10	0	20	41	30	10	0
534945	33.5 F	0	0	30	10	0	20	0	0	0	10
529156	98.5 A	4	230	30	10	20	20	41	30	0	10
523651	72.0 C	4	200	30	10	8	20	0	30	0	0
528988	57.6 F	4	0	20	0	0	20	0	0	0	0
528991	74.6 C	3	180	30	10	0	20	0	30	0	0
529036	82.4 B	3	200	0	10	20	20	41	30	10	10
529034	49.9 F	0	12	20	10	0	20	0	0	0	0
529052	33.9 F	0	0	0	10	0	20	0	30	0	10
528927	85.5 B	4	180	25	0	0	20	0	30	0	7
528786	54.9 F	0	145	30			0	0	30	0	0
534956	37.4 F	0	190	30	0	0	0	0	30	0	0
527456	39.7 F	0	0	30	10	0	0	0	30	0	0

Student	Grade	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Ag Commodities Final MAX:210.00 PTS:210.00 12/18/2016 Project	Rock Cycle Poster MAX:30.00 PTS:30.00 12/12/2016 Project	Soil Map Lab MAX:10.00 PTS:10.00 12/12/2016 Project	Calagon Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Ribbon Test Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Soil Triangle Packet MAX:41.00 PTS:41.00 12/12/2016 Assignment	FFA Emblem MAX:30.00 PTS:30.00 12/12/2016 Assignment	5.3 Mass Movements MAX:10.00 PTS:10.00 12/12/2016 Assignment	Soils Worksheet MAX:10.00 PTS:10.00 12/12/2016 Assignment
528817	89.0 B	4	200	0	10	20	20	41	30	10	7
529069	96.9 A	4	210	30	10	20	20	41	30	0	10
528824	82.4 B	3	170	25	10	0	20	0	30	0	7
529016	98.7 A	4	219	30	10	20	20	41	30	10	10
529045	94.5 A	4	200	30	10	20	20	41		10	10
528980	93.1 A	4	222	30	10	20	0	41	30	0	10
528870	92.7 A	4	190	30	10	20	20	41	30	0	10
529050	101.3 A	4	230	30	10	20	20	41	30	10	10
534861	87.4 B	4	210	30	10	0	20	41	30	0	0
528838	53.8 F	2	0	0	10	0		0	0	0	0
529017	88.5 B	3	130	0	10	20	20	41	30	10	7
528819	88.6 B	0	200	30	10	20	20	41	30	10	10

Student	Grade	Prepared Speech Final MAX:300.00 PTS:300.00 12/18/2016 Project	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Draft 2 Prepared Speech MAX:30.00 PTS:30.00 12/14/2016 Assignment	Breed Project MAX:100.00 PTS:100.00 12/13/2016 Project	Draft 1 Prepared Speech MAX:30.00 PTS:30.00 12/9/2016 Assignment	Prepared Speech Outline MAX:30.00 PTS:30.00 12/2/2016 Assignment	Anatomy & Physiology Test MAX:20.00 PTS:20.00 11/10/2016 Test	Anatomy & Physiology Pack MAX:40.00 PTS:40.00 11/10/2016 Assignment	Chicken Wing Lab MAX:20.00 PTS:20.00 11/10/2016 Project	Gummi Bear Lab MAX:10.00 PTS:10.00 11/4/2016 Project
494298	91.0 A	280	4	30	100	30	30	17	35	19	10
522733	95.2 A	270	3	30	90	30	30	23	35	20	10
494254	76.5 C	234	0	0	100	0	0	18	39	20	10
478209	78.7 C	238	0	30	100	30	0	5	35	20	10
494395	63.0 D	230	2	0	100	0	0	12	40	20	10
494403	95.7 A	321	4	30	100	30	30	17	35	20	10
494236	63.5 D	230	4	30	0	30	0	16	33	20	10
478252	92.3 A	285	4	0	100	30	0	17	35	20	10
494202	42.1 F	150	0	0	75	30	0	10	0	20	10
478351	90.0 A	220	4	0	0	0	30	22	35	20	10
489216	69.9 D	244	2	0	100	30	0	20	35	20	10
478330	93.6 A	231	4	0	100	0	30	28	35	20	10
494214	64.9 D	190	4	0	100	0	0	6	30	19	
472467	73.3 C	252	4	0	0	0	0	15	35	20	10
494111	80.1 B	255	4	0	0	0	0	11	0	0	10
478092	88.1 B	280	4	0	100	0	30	0	40	20	10
494113	19.6 F	0	0	0	0	0	0	0	0	0	0
494387	65.0 D	155	0	0	90	0	0	1	0	20	10
492708	64.4 D	271	1	0	100	30	30	17	38	20	10
494270	41.8 F	224	0	30	0	0	0	8	0	20	10
494315	75.9 C	164	4	0	70	30	30	0	20	15	10
478205	93.3 A	246	4	30	90	30	30	26	40	20	10
494197	53.9 F	155	1	0	100	0	30	19	25	20	10

Student	Grade	Prepared Speech Final MAX:300.00 PTS:300.00 12/18/2016 Project	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Draft 2 Prepared Speech MAX:30.00 PTS:30.00 12/14/2016 Assignment	Breed Project MAX:100.00 PTS:100.00 12/13/2016 Project	Draft 1 Prepared Speech MAX:30.00 PTS:30.00 12/9/2016 Assignment	Prepared Speech Outline MAX:30.00 PTS:30.00 12/2/2016 Assignment	Anatomy & Physiology Test MAX:20.00 PTS:20.00 11/10/2016 Test	Anatomy & Physiology Pack MAX:40.00 PTS:40.00 11/10/2016 Assignment	Chicken Wing Lab MAX:20.00 PTS:20.00 11/10/2016 Project	Gummi Bear Lab MAX:10.00 PTS:10.00 11/4/2016 Project
478441	86.6 B	281	4	0	100	30	30	14	0	20	10

Student	Grade	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Ag Commodities Final MAX:210.00 PTS:210.00 12/18/2016 Project	Rock Cycle Poster MAX:30.00 PTS:30.00 12/12/2016 Project	Soil Map Lab MAX:10.00 PTS:10.00 12/12/2016 Project	Calagon Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Ribbon Test Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Soil Triangle Packet MAX:41.00 PTS:41.00 12/12/2016 Assignment	FFA Emblem MAX:30.00 PTS:30.00 12/12/2016 Assignment	5.3 Mass Movements MAX:10.00 PTS:10.00 12/12/2016 Assignment	Soils Worksheet MAX:10.00 PTS:10.00 12/12/2016 Assignment
528860	95.3 A	4	216	30	10	20	20	41	30	10	10
528895	88.1 B	4	210	30	10	8	20	33	30	10	8
534853	100.8 A	4	210	30	10	20	20	0	30	0	0
534973	22.0 F	0	110	0	10	0	0	0	30	0	0
528863	50.6 F	3	0	0	10	0	20	0	30	0	0
529027	95.1 A	4	210	30	10	20	20	40		10	10
528839	62.6 D	4	0	30	10	0	20	0	30	0	0
528973	12.6 F	0	100	0	0		0	0	30	0	0
529086	53.1 F	2	105	20	10	18	20	0	30	0	0
534966	103.6 A	4	222	30	10	20	20	41		0	10
534959	67.6 D	4	210	30	10	0	20	0		0	0
528809	83.8 B	4	200	20	10	20	0	41	30	10	10
528836	73.7 C	0	210	30	10	20	20	0		0	0
534870	81.5 B	2	215	30	10	20	20	41	30	10	10
529172	75.8 C	3	200	15	10	18	20	41	30	0	10
529088	79.1 C	2	200	25	10	16	20	41	30	0	10
528974	91.1 A	4	200	20	10	18	20	41	30	0	6
534944	66.0 D	4	105	30	10	0	0	0		0	10
528943	72.1 C	4	211	30	10	20	20	0	30	0	8
529022	80.2 B	4	214	15	10	20	20	41	30	0	0
534874	96.6 A	4	210	30	10	20	20	41	30	10	10
534842	34.6 F	0	0	20	0	0	0	0	30	0	10
523654	91.1 A	3	200	20	10	18		0	30	10	10

Student	Grade	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Ag Commodities Final MAX:210.00 PTS:210.00 12/18/2016 Project	Rock Cycle Poster MAX:30.00 PTS:30.00 12/12/2016 Project	Soil Map Lab MAX:10.00 PTS:10.00 12/12/2016 Project	Calagon Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Ribbon Test Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Soil Triangle Packet MAX:41.00 PTS:41.00 12/12/2016 Assignment	FFA Emblem MAX:30.00 PTS:30.00 12/12/2016 Assignment	5.3 Mass Movements MAX:10.00 PTS:10.00 12/12/2016 Assignment	Soils Worksheet MAX:10.00 PTS:10.00 12/12/2016 Assignment
529037	68.4 D	0	210	20	10	0	20	41	30	0	0
529000	61.7 D	0	200	20	10	0	20	0	0	0	0
527288	88.0 B	2	190	20	10	18	20	41	30	0	10
528848	19.9 F	0	0	20				0	0	0	0
528850	73.3 C	3	200	20	10	16	20	0		0	0
534844	71.2 C	3	190	20	10	16	20	41	0	0	0
523643	90.6 A	4	215	20	10	16	20	41		10	10
524689	79.3 C	3	200	20	10	8	20	41	30	10	8
528877	64.2 D	4	0	20	10	0	20	0	30	0	0
523656	94.6 A	4	200	30	10	20	20	41		10	10
528898	87.4 B	3	200	30	10	20	20	41	30	10	10

Student	Grade	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Ag Commodities Final MAX:210.00 PTS:210.00 12/18/2016 Project	Rock Cycle Poster MAX:30.00 PTS:30.00 12/12/2016 Project	Soil Map Lab MAX:10.00 PTS:10.00 12/12/2016 Project	Calagon Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Ribbon Test Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Soil Triangle Packet MAX:41.00 PTS:41.00 12/12/2016 Assignment	FFA Emblem MAX:30.00 PTS:30.00 12/12/2016 Assignment	5.3 Mass Movements MAX:10.00 PTS:10.00 12/12/2016 Assignment	Soils Worksheet MAX:10.00 PTS:10.00 12/12/2016 Assignment
528982	79.0 C	4	200	20	10	20		41	30	0	0
523630	75.4 C	0	202	20	10	20	0	39	30	10	10
528913	84.7 B	4	210	30	10	18	20	41	30	10	10
528885	75.7 C	3	200	0	10	0	20	36	30	10	0
528940	99.4 A	4	222	30	10	20	20	41	30	10	10
528807	89.7 B	2	210	20	10	0	20	41	30	0	10
528964	100.7 A	4	222	30	10	20	20	41	30	10	10
528787	98.6 A	4	200	20	10	20	20	41	30	10	10
528909	88.5 B	4	212	30	10	20	20	32	30	10	10
528872	86.9 B	4	212	30	10	16	20	38	30	0	5
528910	94.4 A	4	215	30	10	20	20	39	30	0	10
529047	83.3 B	2	200	0	10	18	20	41	30	10	10
529004	93.3 A	4	212	20	10	20	20	41	30	10	10
529026	80.5 B	3		20			10	0	30	10	0
528935	99.3 A	4	210	30	10	20	20	0	30	10	10
529053	73.3 C	2	170	30	10	20	20	33	30	0	10
528873	91.8 A	4	210	30	10	20	20	41	30	10	10
528929	93.7 A	4	222	30	10	20	20	38	30	10	10
528879	58.7 F	1	200	20	10	2	0	0	30	10	0
528840	86.3 B	4	170	30	10	20		41	20	0	10
528802	99.4 A	4	214	30	10	20	20	41		10	10
528933	72.5 C	4	203	20	10	0	18	0	30	0	0
527277	93.0 A	4	222	30	10	0	20	41	30	0	10

Student	Grade	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Ag Commodities Final MAX:210.00 PTS:210.00 12/18/2016 Project	Rock Cycle Poster MAX:30.00 PTS:30.00 12/12/2016 Project	Soil Map Lab MAX:10.00 PTS:10.00 12/12/2016 Project	Calagon Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Ribbon Test Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Soil Triangle Packet MAX:41.00 PTS:41.00 12/12/2016 Assignment	FFA Emblem MAX:30.00 PTS:30.00 12/12/2016 Assignment	5.3 Mass Movements MAX:10.00 PTS:10.00 12/12/2016 Assignment	Soils Worksheet MAX:10.00 PTS:10.00 12/12/2016 Assignment
528815	92.1 A	3	200	30	10	0	20	41	30	10	10
529083	100.3 A	4	220	30	10	20	20	0	30	0	10
529062	100.8 A	4	210	30	10	20	20	33	30	10	10
528792	80.8 B	4	214	30	10	18	0	41	30	10	10

Student	Grade	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Ag Commodities Final MAX:210.00 PTS:210.00 12/18/2016 Project	Rock Cycle Poster MAX:30.00 PTS:30.00 12/12/2016 Project	Soil Map Lab MAX:10.00 PTS:10.00 12/12/2016 Project	Calagon Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Ribbon Test Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Soil Triangle Packet MAX:41.00 PTS:41.00 12/12/2016 Assignment	FFA Emblem MAX:30.00 PTS:30.00 12/12/2016 Assignment	5.3 Mass Movements MAX:10.00 PTS:10.00 12/12/2016 Assignment	Soils Worksheet MAX:10.00 PTS:10.00 12/12/2016 Assignment
528825	64.4 D	2	117	20	10	20	20	0	0	0	0
529028	100.0 A	4	212	30	10	20	20	41	30	10	9
523626	85.7 B	2	210	0	10	20	20	41	30	0	10
528799	70.0 C	4	200	10	10	0	0	41		0	0
527285	72.8 C	4	190	20	10	0	20	41	0	0	0
528832	100.7 A	4	205	30	10	20	20	41	30	10	10
528874	93.3 A	4	198	25	10	18	20	41	30	3	10
527293	80.4 B	4	133	30	10	15	20	41	15	10	10
537387	80.7 B	3	190	20	10	18	20	0	30	0	0
528893	72.5 C	4	200	20	10	18	20	22	30	0	7
534950	55.3 F	2	12	20	10	0	20	0		0	0
529041	88.2 B	4	210	20	10	20	20	41	30	10	10
529065	45.6 F	2	0	0	10		0	0	30	0	0
528785	92.1 A	4	200	30	10	0	20	40	30	0	10
529029	69.9 D	4	200	10	10	20	20	41	30	10	10
529043	84.4 B	3	206	20	10	0	20	32	30	10	10
523625	89.8 B	4	210	30	10	20	20	41	30	10	10
529061	72.8 C	0	210	30	10	20	20	41	30	10	10
528855	96.0 A	4	212	30	10	18	20	33	30	10	8
534881	54.1 F	3	200	0	10	0	20	0	0	10	0
523652	83.1 B	4	212	0	10	20	20	41		0	10
528891	92.9 A	3	216	25	10			41		0	10
523642	59.9 F	2	214	30		0	20	0	30	0	10

Student	Grade	FFA Points Semester 1 MAX:4.00 PTS:4.00 12/18/2016 FFA/SAE	Ag Commodities Final MAX:210.00 PTS:210.00 12/18/2016 Project	Rock Cycle Poster MAX:30.00 PTS:30.00 12/12/2016 Project	Soil Map Lab MAX:10.00 PTS:10.00 12/12/2016 Project	Calagon Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Ribbon Test Lab MAX:20.00 PTS:20.00 12/12/2016 Project	Soil Triangle Packet MAX:41.00 PTS:41.00 12/12/2016 Assignment	FFA Emblem MAX:30.00 PTS:30.00 12/12/2016 Assignment	5.3 Mass Movements MAX:10.00 PTS:10.00 12/12/2016 Assignment	Soils Worksheet MAX:10.00 PTS:10.00 12/12/2016 Assignment
528803	89.9 B	3	210	25				0		0	10
529055	51.9 F	0	0	0	10	16	20	41	0	0	0
533180	86.2 B	4	200	0	10	0	20	17	30	10	0
528806	92.0 A	3	211	30	10	20	20	41	30	0	10
528796	80.9 B	2	200	0	10	0	20	41	30	10	0
529024	80.3 B	2	191	20	10		20	0	30	0	0
529031	87.4 B	2	194	25	10	20	20	41	30	3	10
528894	74.0 C	2	200	20	10		20	41	30	0	10
528830	71.6 C	2	200	30	10		20	41	30	10	0
528845	96.2 A	3	210	20	10		20	41		10	10
534889	48.7 F	3	201	25	10	0	20	0	0	0	0

SAE Visit Supervision Report
Shafter High School
Agriculture Department

Type of SAE

- ☐ Agriscience
- ☒ Entrepreneurship
- ☐ Placement

Name: Fernando Date: Sept. 16/16 Location: Ag Farm

Time Start: 4pm Time End: 7pm Time Spent: 3hrs

Description of SAE Project:

Market Lamb
EWE
100+ lbs

Instructors Comment/ Notes:

- keep working on shearing
- Helped student with shearing.
  taught how to do face/legs

Student Signature

Teacher Signature

SAE Visit Supervision Report
Shafter High School
Agriculture Department

Type of SAE

- ☐ Agriscience
- ☒ Entrepreneurship
- ☐ Placement

Name: Priscilla Date: September 16 Location: Ag Dept.

Time Start: _____ Time End: _____ Time Spent: _____

Description of SAE Project:

- Shelter
- growing fruit/veggies

Spoke to student about what project to start for her SAE

Instructors Comment/ Notes:

- Talk to the Shafter Animal Control to see if you can volunteer there

Student Signature

Teacher Signature

SAE Visit Supervision Report
Shafter High School
Agriculture Department

Type of SAE

- ☐ Agriscience
- ☒ Entrepreneurship
- ☐ Placement

Name: Amber Date: November December Location: Ag Dept

Time Start: _____ Time End: _____ Time Spent: _____

Description of SAE Project:

Breeding Ewe

Instructors Comment/ Notes:

- Sign up to feed on weekends
- keep in contact about when bringing back ewe from breeding.

_____
Student Signature

_____
Teacher Signature

SAE Visit Supervision Report
Shafter High School
Agriculture Department

Type of SAE

- ☐ Agriscience
- ☒ Entrepreneurship
- ☐ Placement

Name: Hannah Date: November December Location: Ag Dept

Time Start: _____ Time End: _____ Time Spent: _____

Description of SAE Project:

Breeding Ewe,

Instructors Comment/ Notes:

Sign up for feeding on weekends of lambs

_____
Student Signature

_____
Teacher Signature

SAE Visit Supervision Report
Shafter High School
Agriculture Department

Type of SAE

- ☐ Agriscience
- ☒ Entrepreneurship
- ☐ Placement

Name: Alexis Date: 09/16/2016 Location: School Farm

Time Start: 3:00pm Time End: 4:00pm Time Spent: 1 hr

Description of SAE Project:

Market lamb
100 lbs

Concerned about weight.

Instructors Comment/ Notes:

keep feeding protein and grain amount.
Walk as necessary. Make sure to take on long walks.

Student Signature

Teacher Signature

SAE Visit Supervision Report
Shafter High School
Agriculture Department

Type of SAE

- ☐ Agriscience
- ☒ Entrepreneurship
- ☐ Placement

Name: EVA Date: 08/04/2016 Location: School Farm

Time Start: 4 pm Time End: 10 pm Time Spent: 6

Description of SAE Project:

- Market lamb
- Checked 2 days ago for prolapse

Instructors Comment/ Notes:

- Having issues urinating. Called vet to help with issue

Student Signature

Teacher Signature

SAE Visit Supervision Report
Shafter High School
Agriculture Department

Type of SAE

- ☐ Agriscience
- ☐ Entrepreneurship
- ☐ Placement

Name: EVA Date: 08/02/2016 Location: School Farm

Time Start: 7:00 pm Time End: 7:20 pm Time Spent: 20 mins

Description of SAE Project:

market lamb
- ~~mother~~ lamb
- 100 + lbs

Instructors Comment/ Notes:

- Lamb had slight prolapse
- Checked on lamb & gave appropriate treatment
- Watch for the next couple days

Student Signature

Teacher Signature

SAE Visit Supervision Report
Shafter High School
Agriculture Department

Type of SAE

- ☐ Agriscience
- ☐ Entrepreneurship
- ☐ Placement

Name: Julissa Date: 08/02/2016 Location: Farm

Time Start: 7:30 Time End: 8:00 pm Time Spent: 30 mins

Description of SAE Project:

Market Lamb KCF
EWE Lamb

Instructors Comment/ Notes:

Worked w/ lamb to see why struggling w/ showmanship

Need to work H more. Put on stand with neck up & push on chest. Need to practice with her

Student Signature

Teacher Signature

SAE Visit Supervision Report
Shafter High School
Agriculture Department

Type of SAE

- ☐ Agriscience
- ☒ Entrepreneurship
- ☐ Placement

Name: Alexis Date: 07/20/2016 Location: School Farm

Time Start: 7pm Time End: 7:30pm Time Spent: 30 mins

Description of SAE Project:

Market Lamb for Kern County Fair
- Wether lamb
- ~120 lbs

Instructors Comment/ Notes:

- Doing well
- keep practicing showmanship
- 1 lb feed x2 a day
- 4oz of champion drive
- make sure to fill in your stall card

Student Signature

Teacher Signature

SAE Visit Supervision Report
Shafter High School
Agriculture Department

Type of SAE

- ☐ Agriscience
- ☐ Entrepreneurship
- ☐ Placement

Name: Clarissa Date: 8/25/2016 Location: Solo Dairy

Time Start: 4:30 pm Time End: _____ Time Spent: _____

Description of SAE Project:
Dairy Heifer Bred

Instructors Comment/ Notes:
* Observed Showmanship practice

_____
Student Signature

_____
Teacher Signature

Shafter High School
Agriculture Resources Course Syllabus 2016-2017

I. General Information

Instructor: Teddi Nichols
Course Title: Ag Resources
Grade Level: 9 CP
Room: 1402

Email: teddi_nichols@kernhigh.org
Phone Extension: 76142
Office Hours: 7:30 am-3:30 pm M-F

II. Course Description

Agricultural Resources is a course that explores the Earth's composition, structure, processes, and history; its atmosphere, fresh water, and its environment. Using agriculture as a learning vehicle, the course emphasizes the principles and practices of Earth Science as a way to demonstrate the relevance of agriculture to each student's life and environment. We will explore many soil based concepts and how they relate to the earth we live on and in our agricultural practices. Laboratory experiments introduce students to different lab techniques while building their skills in critical thinking, inquiry, and observation.

Another key aspect of this course involves leadership development in areas such as public speaking, critical thinking, goal setting and effective communication. Students are encouraged to further develop their leadership skills by actively participating in the FFA program and the many opportunities that it has to offer. Throughout the course, students will be graded on participation in intracurricular FFA activities as well as the development and maintenance of an ongoing Supervised Agricultural Experience (SAE) program.

III. Grading Policies:

All grades will be determined by the instructor of the course. Grades will be percent weighted on the following scales:

ASSIGNMENT	CODE	% WEIGHT
Assignments	ASMT	20%
Assessments	TST	40%
Labs/Activities	LBS	40%
	TOTAL	**100%**

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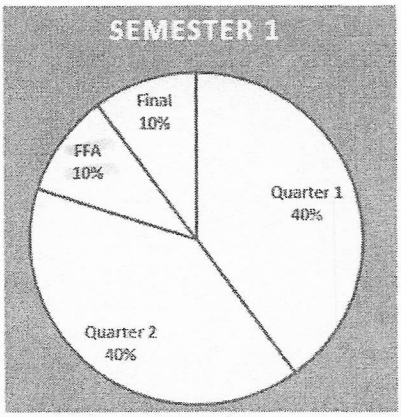

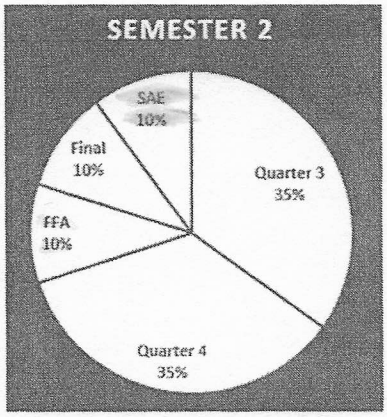

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VI. Class Expectations/Rules:

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2. Students are to remove all **hats** upon entering the classroom.
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4. No **food, drink or chewing gum** will be allowed in the classroom.
5. **Ask permission to get up and move around the classroom:** Wandering the room is a distraction to everyone. Seek permission at appropriate times if you need to leave your seat.
6. **Come to class on time:** Be in your seat with your notebook and a pen out, quiet, and ready to start class. You will be marked tardy if you are not in your seat when the bell rings. Tardiness will result in one point loss for the day.
7. **Turn in work on time:** Late work is frowned upon, but will be accepted depending on the incident and assignment. It is important to get into the habit of getting work done on time.
8. **Binder**: You are required to keep a binder for this class. The binder will be divided into each unit. This will be the place you will keep all the material we cover in this class. This includes notes, worksheets, study guides, etc. You are responsible for bringing your binder to class every day. I will periodically check binders to make sure all your work is in order.
9. **Complete work in pencil or blue or black ink.** If any other color is used I will ask you to re-do the assignment.
10. **Label work properly:** All work must include *name, date, and period* in the upper right-hand corner of the page and a *title* in the top center of page or it will not be graded! All assignments turned in without a name will be thrown away.
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14. **Daily Points:** Each student will have the opportunity to earn three points a day for their participation. 1 point for being on time, 1 for participation and the third for cleaning up.

FFA Activity:

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Rules Contract for Ms. Nichols to keep on file in class

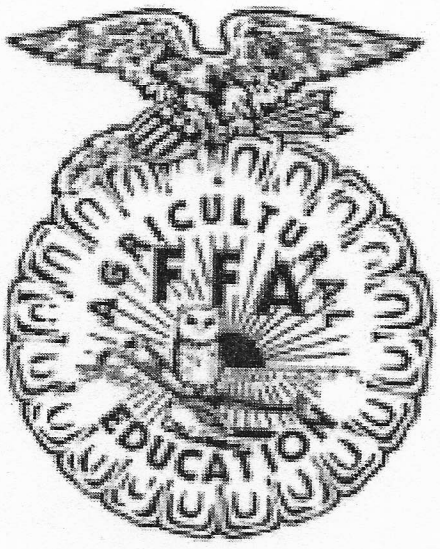
I have read the rules for Ag Soil Science and understand them and the consequences that will follow if they are broken. I agree to abide by these rules at all times.

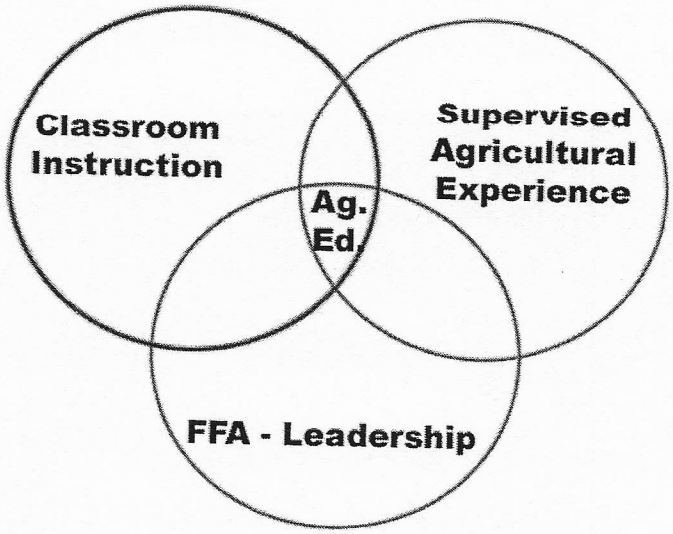
Student Signature _____ Date _____

As the parent/guardian I have read these rules and agree to hold my son/daughter to these standards of classroom behavior and expectations.

Parent /Guardian Signature _____ Date _____

***** Due <u>no later</u> than Wednesday, August 24th to Ms. Nichols at the <u>beginning of class!</u>***





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- Student will lose technology usage privileges and be subject to school disciplinary actions if the above rules are not followed.

Please sign and return to Ms. Nichols. It is worth 20 points

We have read and understand the above policies and procedures. I understand that Ms. Nichols covered the above syllabus information during class.

Student Name: _____

Signature of Student: _____ Date: _____

Signature of Parent: _____ Date: _____

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Please sign the statement below. Your signature on this document indicates that you have read this release form and granted permission for use as described herein. If the Student and Parent/Guardian wish to rescind this consent, they may do so at any time with written notice.

Signature of Student: _____ Date: _____

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Shafter High School
Agriculture Resources Course Syllabus 2016-2017

I. General Information

Instructor: Teddi Nichols
Course Title: Ag Resources
Grade Level: 9 GATE
Room: 1402

Email: teddi_nichols@kernhigh.org
Phone Extension: 76142
Office Hours: 7:30 am-3:30 pm M-F

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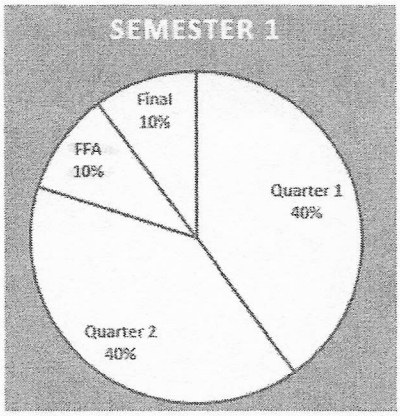

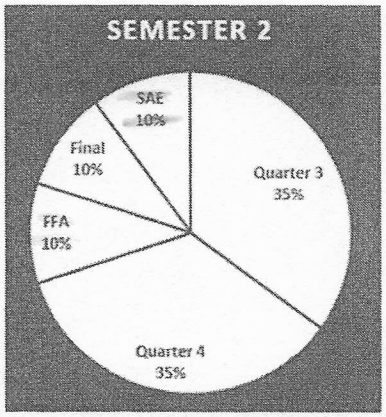

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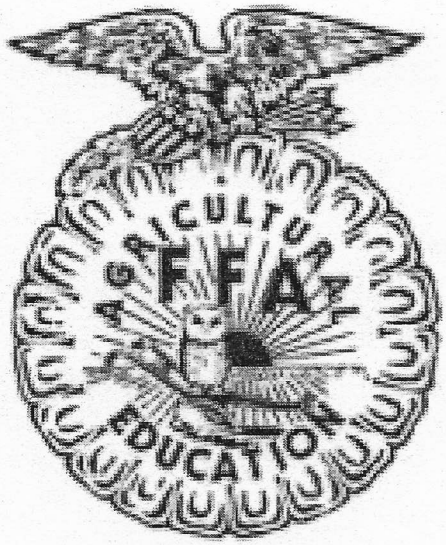

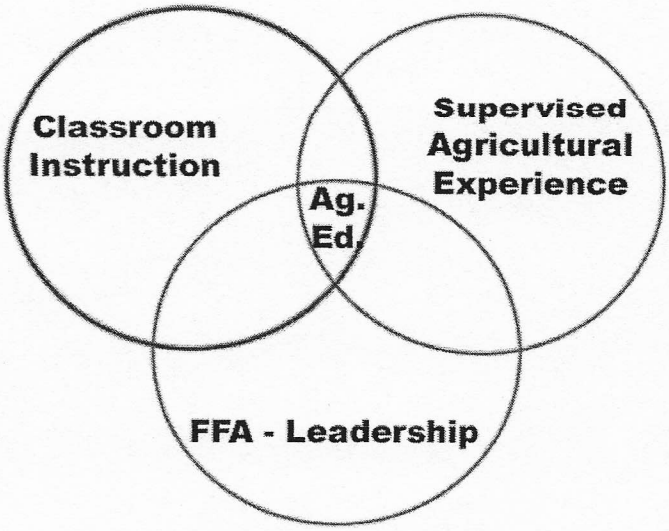

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Signature of Student: _____ Date: _____

Signature of Parent: _____ Date: _____

Shafter High School
Veterinary Science Course Syllabus 2016-2017

I. General Information

Instructor: Teddi Nichols
Class Title: Vet Science
Grade Level: 11 & 12
Room: 1402

Email: teddi_nichols@kernhigh.org
Phone Extension: 76142
Office Hours: 7:30 am and 3:30 pm M-F
or by appointment

II. Course Description

Vet Science is a course that explores basic practices and skills used in the veterinary medicine industry. The class will help prepare students for entry level or advanced employment. We will focus on transferable skills for both small and large animals. Laboratory experiments introduce students to different lab techniques while building their skills in critical thinking, inquiry, and observation.

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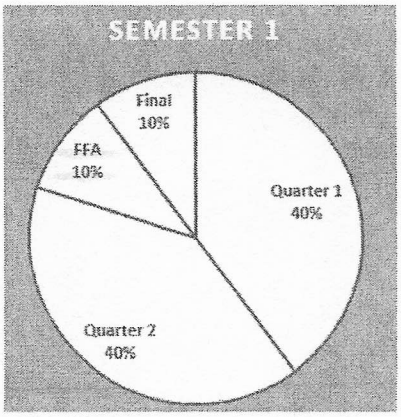

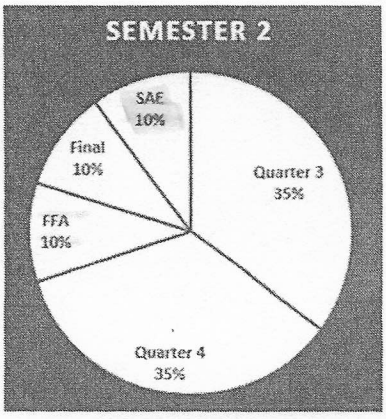

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b. Students are to remove all **hats** upon entering the classroom.
c. **Restroom visits** will not be allowed except in the case of an emergency. You have a 7 minute passing period and you should use the restroom then.
d. No **food, drink or chewing gum** will be allowed in the classroom.
e. **Ask permission to get up and move around the classroom:** Wandering the room is a distraction to everyone. Seek permission at appropriate times if you need to leave your seat.
f. **Come to class on time:** Be in your seat with your notebook and a pen out, quiet, and ready to start class. You will be marked tardy if you are not in your seat when the bell rings. Tardiness will result in one-point loss for the day.
g. **Turn in work on time:** Late work is frowned upon, but will be accepted depending on the incident and assignment. It is important to get into the habit of getting work done on time.
h. **Binder**: You are required to keep a binder for this class. The binder will be divided into each unit. This will be the place you will keep all the material we cover in this class. This includes notes, worksheets, study guides, etc. You are responsible for bringing your binder to class every day. I will periodically check binders to make sure all your work is in order.
i. **Complete work in pencil or blue or black ink.** If any other color is used I will ask you to re-do the assignment.
j. **Label work properly:** All work must include *name, date, and period* in the upper right-hand corner of the page and a *title* in the top center of page or it will not be graded! All assignments turned in without a name will be thrown away.
k. **Dismissal:** You are to remain seated until the dismissal bell rings and I excuse you. ***You will be dismissed by the teacher, not the bell!***
l. **No cell phones or other electronic devices!** All personal items which become a distraction will be confiscated by the instructor and handed over to the Dean's office where you can deal with their retrieval at the end of the day.
m. **BE RESPECTFUL:** All students are expected to be respectful to classmates, guests and the instructor at all times in order for ALL students to learn to their best ability.
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FFA Activity:

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Shafter High School
Agriculture Resources Course Syllabus 2016-2017

I. General Information

Instructor: Teddi Nichols
Course Title: Ag Resources
Grade Level: 9 CP
Room: 1402

Email: teddi_nichols@kernhigh.org
Phone Extension: 76142
Office Hours: 7:30 am-3:30 pm M-F

II. Course Description

Agricultural Resources is a course that explores the Earth's composition, structure, processes, and history; its atmosphere, fresh water, and its environment. Using agriculture as a learning vehicle, the course emphasizes the principles and practices of Earth Science as a way to demonstrate the relevance of agriculture to each student's life and environment. We will explore many soil based concepts and how they relate to the earth we live on and in our agricultural practices. Laboratory experiments introduce students to different lab techniques while building their skills in critical thinking, inquiry, and observation.

Another key aspect of this course involves leadership development in areas such as public speaking, critical thinking, goal setting and effective communication. Students are encouraged to further develop their leadership skills by actively participating in the FFA program and the many opportunities that it has to offer. Throughout the course, students will be graded on participation in intracurricular FFA activities as well as the development and maintenance of an ongoing Supervised Agricultural Experience (SAE) program.

III. Grading Policies:

All grades will be determined by the instructor of the course. Grades will be percent weighted on the following scales:

ASSIGNMENT	CODE	% WEIGHT
Assignments	ASMT	20%
Assessments	TST	40%
Labs/Activities	LBS	40%
	TOTAL	**100%**

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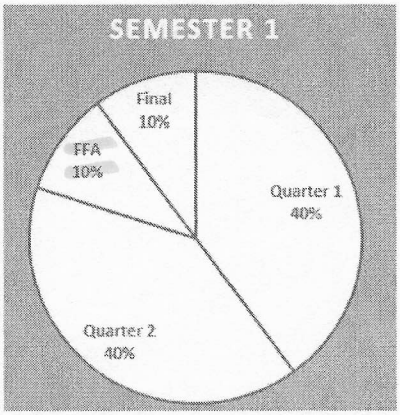

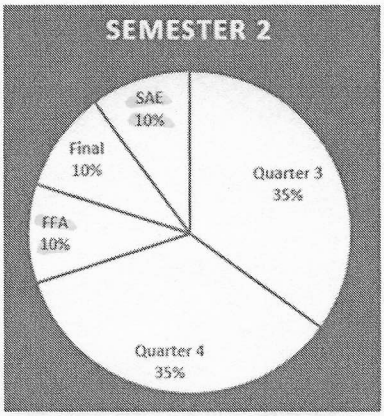

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If you miss a class meeting, and it was an excused absence, it is your responsibility to find out what you missed. **Collect make up work before school, at lunch or after school:** There is more time here for me to find what you have missed. You have **two class days** to make up class work or homework. **Tests and quizzes** may be made up **by appointment** before school, after school, or during lunch. You will have **three class days** to make up or retake tests and quizzes.

V. Cheating Policy:

Cheating will not be tolerated in this class or at Shafter High School. Any use of another student's thoughts or answers will be considered cheating. Giving your answers to other students will also be considered cheating on both student's parts and assignments for both students will receive a score of zero. Looking at another students test, copying homework or labs is cheating and will not be tolerated. A student who is caught cheating will be dealt with by the dean and school officials.

VI. Class Expectations/Rules:

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Rules Contract for Ms. Nichols to keep on file in class

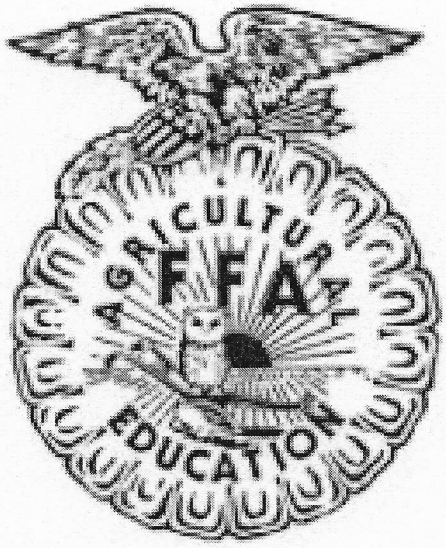
I have read the rules for Ag Soil Science and understand them and the consequences that will follow if they are broken. I agree to abide by these rules at all times.

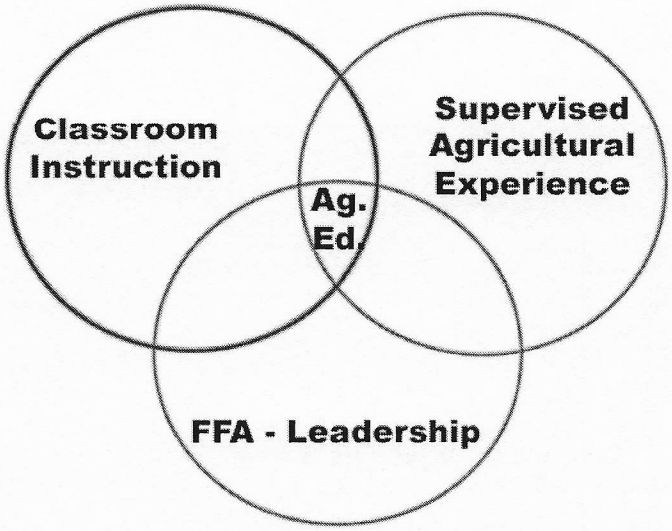
Student Signature Date

As the parent/guardian I have read these rules and agree to hold my son/daughter to these standards of classroom behavior and expectations.

Parent /Guardian Signature Date

***** Due <u>no later</u> than Wednesday, August 24th to Ms. Nichols at the <u>beginning of class!</u>***





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Please sign and return to Ms. Nichols. It is worth 20 points

We have read and understand the above policies and procedures. I understand that Ms. Nichols covered the above syllabus information during class.

Student Name: _____

Signature of Student: _____ Date: _____

Signature of Parent: _____ Date: _____

MEDIA RELEASE CONSENT

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Please sign the statement below. Your signature on this document indicates that you have read this release form and granted permission for use as described herein. If the Student and Parent/Guardian wish to rescind this consent, they may do so at any time with written notice.

Signature of Student: _____ Date: _____

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Shafter High School
Agriculture Resources Course Syllabus 2016-2017

I. General Information

Instructor: Teddi Nichols
Course Title: Ag Resources
Grade Level: 9 GATE
Room: 1402

Email: teddi_nichols@kernhigh.org
Phone Extension: 76142
Office Hours: 7:30 am-3:30 pm M-F

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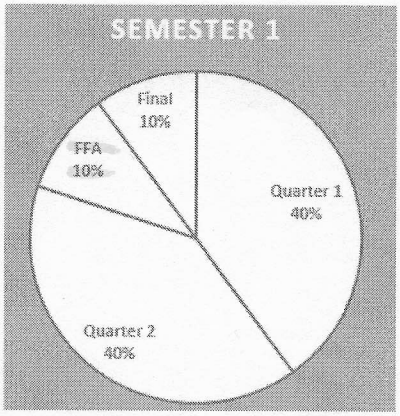

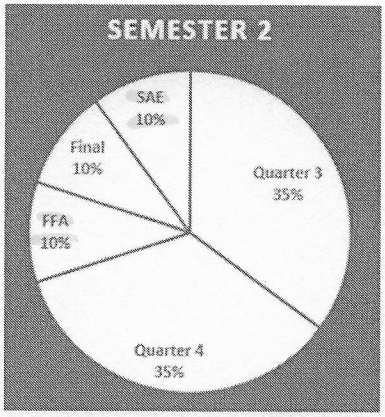

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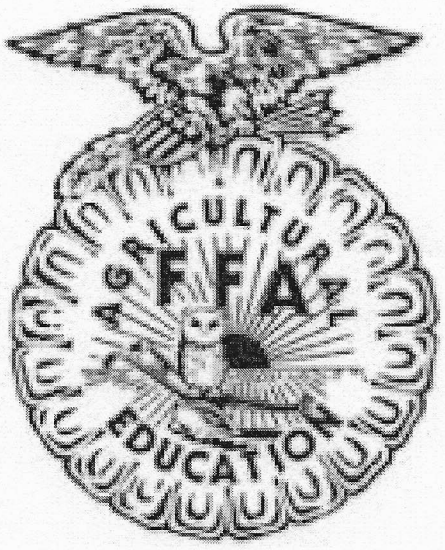

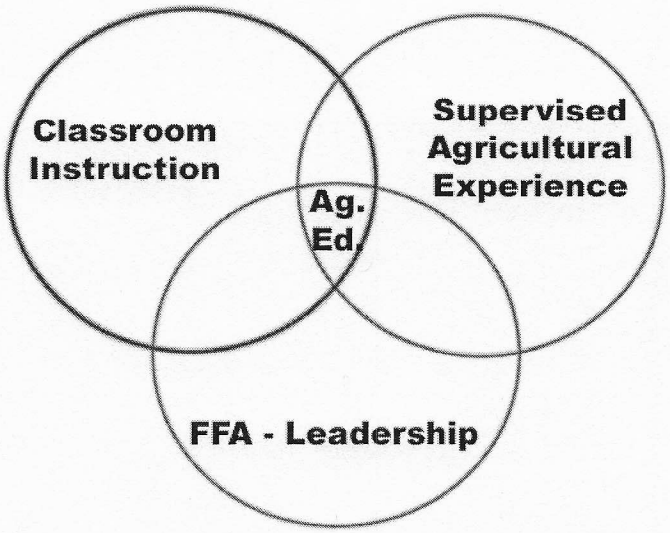

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Student Name: _____

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Please sign the statement below. Your signature on this document indicates that you have read this release form and granted permission for use as described herein. If the Student and Parent/Guardian wish to rescind this consent, they may do so at any time with written notice.

Signature of Student: _____ Date: _____

Signature of Parent: _____ Date: _____

Shafter High School
Veterinary Science Course Syllabus 2016-2017

I. General Information

Instructor: Teddi Nichols
Class Title: Vet Science
Grade Level: 11 & 12
Room: 1402

Email: teddi_nichols@kernhigh.org
Phone Extension: 76142
Office Hours: 7:30 am and 3:30 pm M-F
or by appointment

II. Course Description

Vet Science is a course that explores basic practices and skills used in the veterinary medicine industry. The class will help prepare students for entry level or advanced employment. We will focus on transferable skills for both small and large animals. Laboratory experiments introduce students to different lab techniques while building their skills in critical thinking, inquiry, and observation.

Another key aspect of this course involves leadership development in areas such as public speaking, critical thinking, goal setting and effective communication. Students are encouraged to further develop their leadership skills by actively participating in the FFA program and the many opportunities that it has to offer.

III. Grading Policies:

All grades will be determined by the instructor of the course. Grades will be percent weighted on the following scales:

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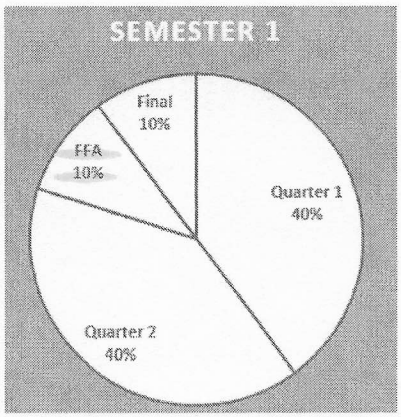

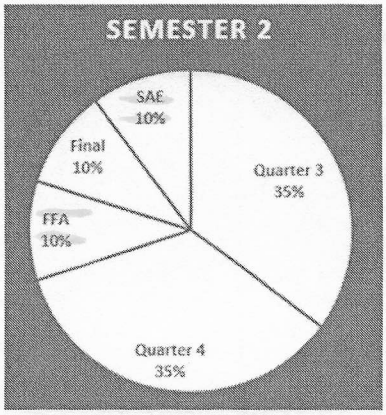

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SHAFTER FFA

2016-2017

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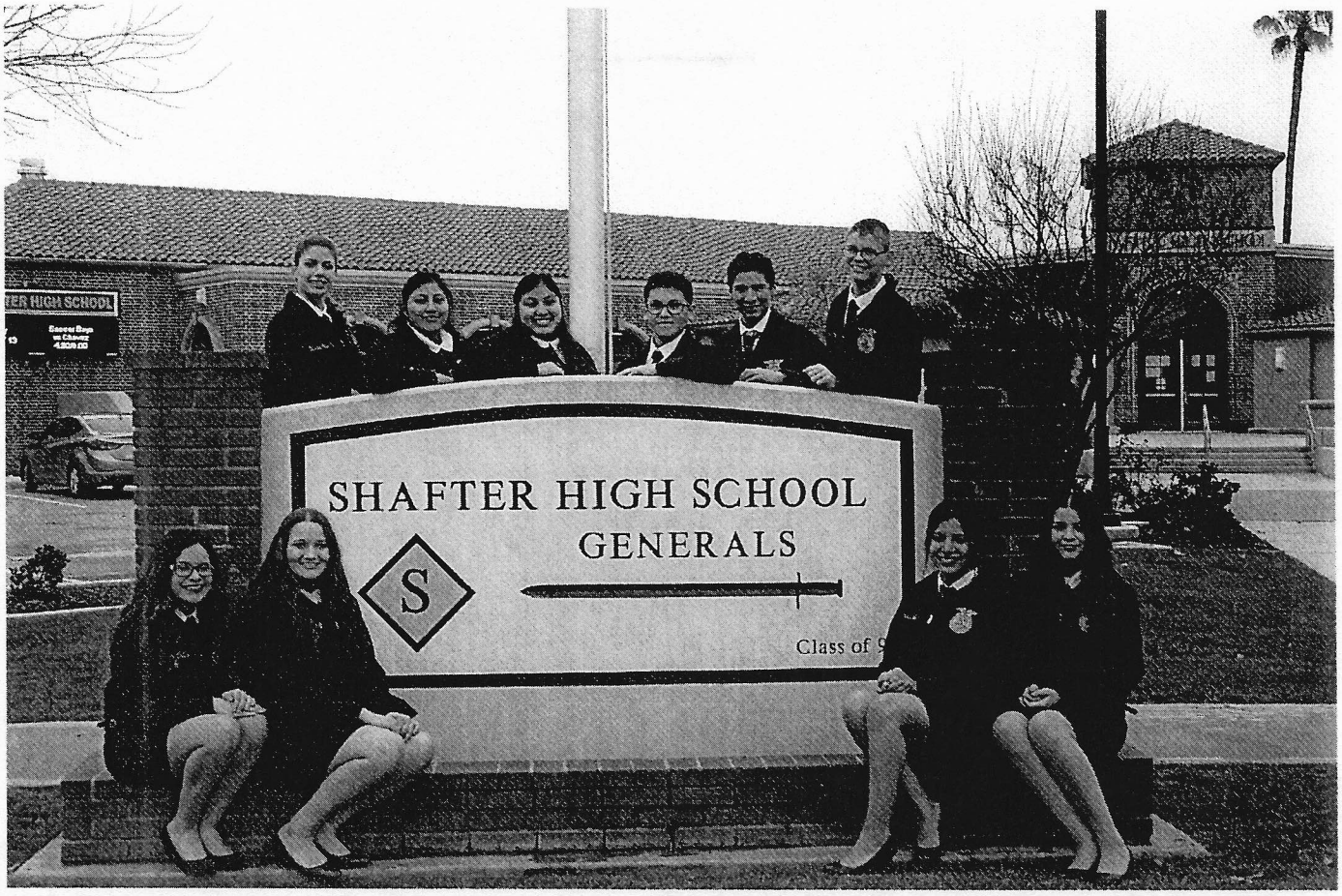
LETTER TO PARENTS FOR KERN COUNTY FAIR

SHAFTER FFA FAIR APPLICATIONS

STATE CONFERENCE APPLICATION



2016-2017 Chapter Officer

President: Victoria Darling
Vice President: Jasmine Ortiz
Secretary: Monica Barraza
Treasurer: Maria Barraza
Reporter: Esmeralda Torres
Sentinel: Michael Vander Poel

2016-2017 Greenhand Officer Team

President: Valeria Gomez
Vice President: Clarissa Vander Poel
Secretary: Isaac Moreno
Treasurer: Steven Evangelista
Reporter: Kayden Keillor
Sentinel: Fernando Medina

How to be an Active Member

An active FFA member of the Shafter FFA chapter is one who:

1. Is enrolled in an Agriculture Education class
2. Has paid their dues at the local, state, and national levels
3. Maintains a 2.0 or higher grade point average at all times
4. Earns a "C" or better in an Agriculture course
5. Has earned necessary points when applicable
6. Participate in fundraisers
7. Has become involved in a Supervised Agriculture Experience project

Every student enrolled in an Agriculture Education course at Shafter High School is eligible to join FFA. The first step is to sign up which starts the process of active membership. The next step is to maintain a 2.0 or higher G.P.A. If a student falls below a 2.0 for two consecutive grading periods, the student will not be eligible to participate in many FFA activities until eligibility is met. The final step is to be involved as much as possible. The FFA has a Point Award System and every activity has a point value.

We encourage everyone to involve him/herself in the FFA program. There are opportunities, which develop leadership, confidence, and friendships. There is a large area for growth within the FFA program.

2016-2017 Calendar of Events

AUGUST

12-13- Chapter Officer Boot Camp @ SLO
17- School Starts
20- Chapter Officer Leadership Conference
@ Frontier 8:30 am

SEPTEMBER

5- *No School Labor Day*
6- FFA Meeting 6:30 pm
7- Greenhand Conference- Bakersfield
21-Oct 2-Kern County Fair

OCTOBER

11- FFA Meeting 6:30pm
21- Fall Harvest
19-22 National FFA Convention
28- Reedley College Freshman Field Day

NOVEMBER

1- FFA Meeting 6:30 pm
8-10, 14- Opening & Closing Practice
11- Veterans Day Holiday
15- SV Opening & Closing Contest
@ Independence-5pm
21-25 Thanksgiving Break
29- SV Novice Records/BIG/ Coops- BC 5pm

DECEMBER

1- South Valley Section Activity
8- Banking Contest @Bkfd Ag Pavillion -4pm
9- Winter Officer Planning
26-Jan 6- Christmas Break

JANUARY

10- SV Speaking Contest Manuscripts due
16- Martin Luther King Jr. Day
17- FFA Meeting -6:30
20- SJ Regional Officer Apps Due
28- Public Speaking Contest @ Wasco-8:30 am

FEBRUARY

7- State Degree/ Proficiency Scoring
14-16 Tulare Farm Show
17-20 MFE/ALA Conferences@ Visalia
20- Presidents Day
20-24 National FFA Week
24- FFA Meeting @ 6:30pm
25- San Joaquin Regional Meeting @ ?
28- State Officer Testing

MARCH

4- UC Davis Field Day
14- SV Parli Pro Contest @ Foothill- 5pm
17- Regional Speaking @ COS -9 am
18- Merced FD/ Dinuba Vet Science
25- MJC Field Day
30- State Degree Ceremony @ Bkfd Ag Pavillion-6pm
31- Regional Parli Pro Contest @ COS -12 pm

APRIL

1- Reedley Field Day

4- FFA Meeting- 6:30 pm
8- Pomona Field Day/ Clovis Vet Science
10-17 Spring Break
18- Sectional Officer Applications Due
20- State Speaking Finals
21- State Parli-Pro Finals
22-25 State FFA Leadership Conference @Fresno
27- Fair Meeting 6 pm

MAY

1- Chapter Officer Applications Due
2- Chapter Officer Interviews 3
3- KAF Scholarship Night @ Bkfd Ag Pavilion
4- Officer Speech Recording
6- Cal Poly State Finals
8- Sectional Officer Candidate Interview @ West
9- SV Section Elections @ Delano 4 pm
12, 15, 17- Banquet Practice
18- Shafter FFA Banquet

INTRODUCTION TO THE FFA

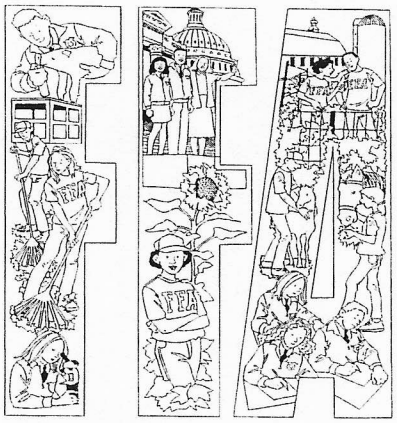
The FFA is a national organization of, by, and for students studying agriculture in public secondary schools under the provision of the National Vocational Education Acts.

An integral part of the program of education in agriculture in the public schools system of America, the FFA has become well known in recent years. No National student organization enjoys greater freedom of self-government under adult council and guidance than the FFA. Organized in November of 1928, it has served to motivate and vitalize the instruction offered to students of agriculture and to provide further training in citizenship and agriculture business.

The FFA is a non-profit, non-political youth organization designed to take its place with other agents striving for the development of leadership, the advancement of agriculture technology, and improvement of agricultural life. The foundation upon which the FFA organization is molded includes leadership, service, thrift, scholarship, improved agriculture, organized recreation, citizenship and patriotism.

National Headquarters for the FFA are located in the Agriculture Education Branch of Health, Education, and Welfare, Washington D.C. The National FFA Convention is held annually in Louisville, Kentucky and the California Association holds its annual conference at the Fresno Convention Center each April.

This 2005-2006 Program of Activities was developed to explain the purpose of the FFA Organization and give insight into the many opportunities that are available to all agriculture students at Shafter High School.



The Agricultural Education Mission

The mission of Agriculture Education is to prepare and support individuals for careers, build awareness and develop leadership for the food, fiber and natural resource system.

FFA CODE OF ETHICS

FFA members conduct themselves at all times to be a credit to their organization, chapter, school, community and family. As an FFA member, I pledge to:

1. Develop my potential for premier leadership, personal growth, and career success.
2. Make a positive difference in the lives of others.
3. Dress neatly and appropriately for the occasion.
4. Respect the rights of others and their property.
5. Be courteous, honest and fair with others.
6. Communicate in an appropriate, purposeful, and positive manner.
7. Demonstrate good sportsmanship by being modest in winning and generous in defeat.
8. Make myself aware of FFA programs and activities and be an active participant.
9. Conduct and value a supervised agricultural program.
10. Strive to establish and enhance my skill through agricultural education in order to enter a successful career.
11. Appreciate and promote diversity in our organization.

FFA OFFICIAL DRESS

Female Official Dress

• Black skirt. Skirt is to be at least knee length, hemmed evenly across the bottom, with a slit no longer than 2 inches above the knee, excluding the kick pleat. Black slacks may be appropriate for traveling and outdoor activities.
• White collared blouse and official FFA blue scarf.
• Black dress shoes with a closed heel and toe (No boots, sandals, open-toed shoes, or tennis shoes.)
• Natural colored nylon hosiery.
• Official FFA jacket zipped to the top.

Male Official Dress

• Black dress pants. (No jeans - blue or black, leather, pleather, etc.)
• White dress shirt and official FFA tie
• Black dress shoes with a closed heel and toe. (No boots, sandals, open-toed shoes, tennis shoes.)
• Black socks.
• Official FFA jacket zipped to the top.

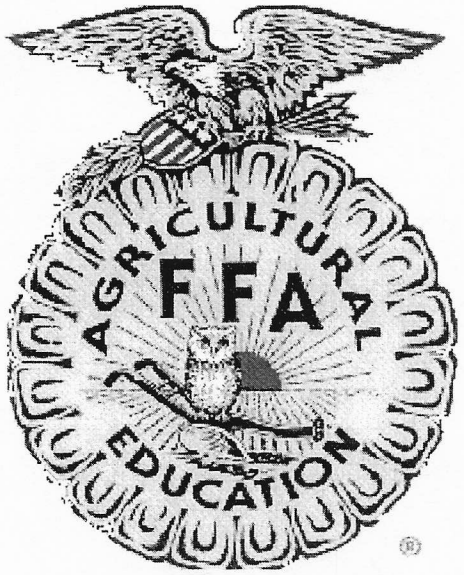
PROPER USE OF THE FFA JACKET

The FFA jacket is the most recognizable symbol of the organization. As a member, one of your responsibilities is to ensure its proper use. Specific guidelines are outlined below.

1. The jacket is to be worn only by members.
2. The jacket should be kept clean and neat.
3. The *back* of the jacket includes only: a large official FFA emblem, the name of the state association, and the name of the local chapter, district, or area. The *front* of the jacket includes only a small official FFA emblem, the name of the individual, one office or honor, and the year of that office or honor.
4. The jacket should be worn on official occasions with the zipper fastened to the top. The collar should be turned down and the cuffs buttoned.
5. The jacket should be worn by members and officers on all official FFA occasions, as well as other occasions where the chapter or state association is represented. It may be worn to school and other appropriate places.
6. The jacket should only be worn to places that are appropriate for members to visit.
7. School letters and insignia of other organizations should not be attached to or worn on the jacket.
8. When the jacket becomes faded and worn, it should be discarded or the emblems and lettering removed.
9. The emblems and lettering should be removed if the jacket is given or sold to a non-member.
10. A member should act professionally when wearing the official FFA jacket.
11. Members should refrain from use of tobacco and alcohol when underage and at all times when representing the FFA. In addition, members should exhibit their leadership qualities when they encounter substance including tobacco and alcohol and serve to discourage others from inappropriate behavior.
12. All chapter degree, officer and award medals should be worn beneath the name on the right side of the jacket, with exception that a single state FFA Degree charm or American FFA Degree key should be worn above the name or attached to a standard key chain. No more than three medals should be worn on the jacket. These should represent the highest degree earned, the highest office held and the highest award earned by the member.

FFA EMBLEM

The National Emblem of the FFA is significant and meaningful in every detail. Used by members in all recognized units in the organization, it is made up of five symbols: the owl, the plow, and the rising sun, within the cross section of an ear of corn, which is surrounded or surmounted by the American eagle. Upon the face of the emblem appear the words, "Agricultural Education," and the letters, "FFA."



The ***owl*** is symbolic of wisdom and knowledge.

The ***plow*** is the symbol of labor and tillage of the soil.

The ***rising sun*** is emblematic of progress and the new day that will dawn when all farmers are trained and have learned to cooperate.

The ***cross section of an ear of corn*** represents common agricultural interests since corn in native to America and grown in every state.

The ***eagle*** is indicative of the national scope of the organization.

FFA COLORS

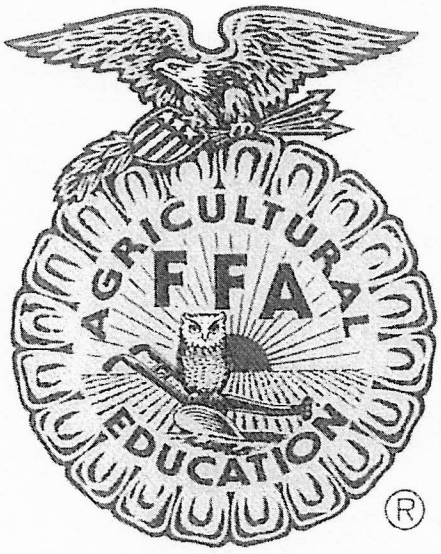
National Blue

Corn Gold

FFA Motto

Learning to do
Doing to Learn
Earning to Live
Living to Serve

The FFA Creed



I believe in the future of agriculture, with a faith born not of words but of deeds - achievements won by the present and past generations of agriculturists; in the promise of better days through better ways, even as the better things we now enjoy have come to us from the struggles of former years.

I believe that to live and work on a good farm, or to be engaged in other agricultural pursuits, is pleasant as well as challenging; for I know the joys and discomforts of agricultural life and hold an inborn fondness for those associations which, even in hours of discouragement, I cannot deny.

I believe in leadership from ourselves and respect from others. I believe in my own ability to work efficiently and think clearly, with such knowledge and skill as I can secure, and in the ability of progressive agriculturists to serve our own and the public interest in producing and marketing the product of our toil.

I believe in less dependence on begging and more power in bargaining; in the life abundant and enough honest wealth to help make it so--for others as well as myself; in less need for charity and more of it when needed; in being happy myself and playing square with those whose happiness depends upon me.

I believe that American agriculture can and will hold true to the best traditions of our national life and that I can exert an influence in my home and community which will stand solid for my part in that inspiring task.

The creed was written by E. M. Tiffany, and adopted at the 3rd National Convention of the FFA. It was revised at the 38th Convention and the 63rd Convention.

FFA DEGREES

There shall be four degrees of active membership based on individual achievement. These are the Greenhand FFA Degree, Chapter FFA Degree, State FFA Degree, and the American FFA Degree. The national organization shall set the minimum qualifications for each degree.

Greenhand FFA Degree

To be eligible to receive the Greenhand FFA Degree from the chapter, the member must meet the following minimum qualifications:

1. Be enrolled in agricultural education and have satisfactory plans for a supervised agricultural experience program.
2. Learn to explain the FFA Creed, Motto, Salute and the FFA Mission Statement.
3. Describe and explain the meaning of the FFA emblem and colors.
4. Demonstrate knowledge of the FFA Code of Ethics and the proper use of the FFA jacket.
5. Demonstrate knowledge of the history of the organization, the chapter constitution and the bylaws, and the chapter Program of Activities.
6. Personally own or have access to the Official FFA Manual and the FFA Student Handbook.
7. Submit written application for the Greenhand FFA Degree.

Chapter FFA Degree

To be eligible to receive the Chapter FFA Degree from the chapter, the member must meet the following qualifications:

1. Must have received the Greenhand FFA Degree.
2. Must have satisfactorily completed the equivalent of at least 180 hours of systematic school instruction in agricultural education at or above the ninth grade level, have in operation an approved supervised agriculture experience program, and be enrolled in an agricultural education course.
3. Have participated in the planning and conducting of at least three official functions in the chapter Program of Activities.
4. Have earned and productively invested at least $150 by the members own efforts or worked at least forty-five hours in excess of scheduled class time, or a combination thereof, and have developed plans for continued growth and improvement in a supervised agriculture experience program.
5. Have effectively led a group discussion for 15 minutes.
6. Have demonstrated five procedures of parliamentary law.
7. Show progress toward individual achievement in the FFA awards program.
8. Have a satisfactory scholastic record.
9. Submit a written application for the Chapter FFA Degree.

State FFA Degree

To be eligible to receive the State FFA Degree from the state association, the member must meet the following minimum qualifications:

1. Have received the Chapter FFA Degree.
2. Have been an active FFA member for at least two years (24 months) at the time of receiving the State FFA Degree.
3. While in school, have completed the equivalent of at least two years (360 hours) of systematic school instruction in agricultural education at or above the ninth grade level, which includes a SAE program.
4. Have earned and productively invested at least $1,000, or worked at least 300 hours in excess of scheduled class time, or a combination thereof, in a supervised agricultural experience program.
5. Demonstrate leadership ability by:
    a. Performing 10 procedures of parliamentary law.
    b. Giving a six-minute speech on a topic relating to agriculture or the FFA.
6. Serving as an officer, committee chairperson, or participating member of a chapter committee.
7. Have a satisfactory scholastic record as certified by the local agriculture educator and the principal or superintendent.
8. Have participated in at least five different FFA activities above the chapter level.

American FFA Degree

To be eligible to receive the American FFA Degree from the National FFA Organization, the member must meet the following qualifications:

1. Have received the State FFA Degree, have been an active member for the past three years (36 months) and have a record of satisfactory participation in activities on the chapter and the state level.
2. Have satisfactorily completed the equivalent of at least three years (540 hours) of systematic secondary school instruction in an agricultural education program.
3. Have graduated from high school at least 12 months prior to the national convention at which the degree is to be granted.
4. Have in operation and have maintained records to substantiate an outstanding SAE program through which a member has exhibited comprehensive planning, managerial and financial expertise.
5. Have earned and productively invested at least $7,500 or have earned and productively invested at least $1,500 and worked 2,250 hours in excess of scheduled class time.
6. Have a record of outstanding leadership abilities and community involvement and have achieved a high school scholastic record of a "C" or better as certified by the principal or superintendent.

PROFICIENCY AWARD AREAS

Agricultural Communications

Typically includes programs in which students work at newspapers or other agricultural print facilities such as magazines to obtain training and practical experience in writing and publicizing in preparation for a writing or communications career. SAE programs may occur at radio or television stations, fair media rooms, or other businesses that require speaking skills and a knowledge of agriculture. This area includes any use of communication technology, such as web sites, aimed at communicating about agriculture.

Agricultural Mechanics Design and Fabrication

Involves designing and constructing agricultural equipment, structural land improvements and/or structures. It also includes selecting structural materials and/or implementing plans that use concrete, plumbing, heating, ventilation, and/or air conditioning in agricultural settings.

Agricultural Mechanics Repair and Maintenance

Involves adjusting, repairing, and maintaining agricultural power systems, which includes those that run by the way of mechanical, electrical, chemical, wind, solar, fluid, and/or water power.

Agricultural Mechanics Energy Systems (Agricultural Power)

Involves adjusting, repairing and maintaining agricultural power systems, which includes those that run by the way of mechanical, electrical, chemical, wind, solar, fluid and/or water power.

Agricultural Processing

Involves students who assemble, transport, process, fabricate, mix, package, and store food and nonfood agricultural products. Products may include the processing of meat, milk, honey, cheese, raisins and other dried fruits, maple syrup, and/or other food items. Nonfood products can include the processing of by-products such as meat, bone, fish and blood meal; tallow; compost; hides; wool and cotton. It can include the cubing and pelleting of forages, as well as producing birdseed and other pet foods. **Note:** the processing of forest products is no longer a part of this proficiency area.

Agriculture Sales Entrepreneurship/Placement

Involves students who sell feed, seed, fertilizer or agricultural chemicals. Students can also own businesses that involve the sales of agricultural equipment, machinery, or structures. Activities can include the merchandising of crops, livestock, processed agricultural commodities, horticultural or forestry items at either the retail or wholesale level.

Agricultural Services

Involves students who work in services offered through agricultural enterprises that deal with custom equipment operation and maintenance, agricultural management and finance, agricultural education, animal breeding, custom bailing, crop scouting, horseshoeing, taxidermy, animal hospitals, custom and contract feeding or other appropriate services.

Beef Production Entrepreneurship/Placement

Includes programs that use the best management practices available to produce and market beef efficiently.

Dairy Production Entrepreneurship/Placement

Involves programs that use the best management practices available to produce and market dairy cattle and dairy products efficiently.

Diversified Agricultural Production

Involves the use of the best management practices available to produce and market efficiently at least one livestock and at least one crop related proficiency.

Diversified Crop Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market efficiently two or more crop related proficiency areas such as grain, fiber/oil, forage, specialty crop, non-horticultural vegetable or fruit production.

Diversified Horticulture Entrepreneurship/Placement

Typically involves producing, processing, and marketing plants used principally for ornamental or aesthetic purposes and fruits and vegetables traditionally related to horticulture. This diversified proficiency area encompasses a student SAE with at least two of the following areas: Floriculture; Nursery Operations; Landscape Management; Turf Grass Management; and Fruit and/or Vegetable Production – such as viticulture (grapes), pomology (fruit trees) and horticulture fruits and vegetable (not including fruit and vegetable row crops).

Diversified Livestock Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market efficiently a combination of two or more livestock related proficiency areas such as beef, dairy, swine, equine, specialty animal, small animal, small animal production or poultry.

Emerging Agricultural Technology

Involves programs where students gain career experiences in new and emerging agricultural technologies such as agriscience, global positioning, biotechnology lab research, computers and others that are not covered by existing categories.

Environmental Sciences and Natural Resources Management

Typically results in FFA members receiving practical experiences in the principles and practices of managing and/or improving the environment and natural resources. Activities can involve managing agricultural waste, recycling agriculture products, cleaning the environment, or serving in the conservation corps. This area can include multiple resource uses; wildlife surveys; erosion prevention practices; public relations and pollution education; land use that regulations that pertain to soil, water and air quality; as well as wetlands, shorelines and grasslands preservation.

Equine Science Entrepreneurship/Placement

Typically provides insights into horse production, breeding, marketing, showing and other aspects of the equine industry. Programs can also include calf roping, barrel racing, rodeo, racing, riding lessons and therapeutic horseback riding if horses are owned and/or managed by a member.

Fiber Crop Production

Involves the use of the best management practices available to produce a market efficiently fiber and/or oil crops such as cotton, sisal, hemp, soybeans, flax, mustard, canola, caster beans, sunflower, peanuts, dill, spearmint and safflower.

Floriculture

Involves the use of the best management practices available to produce and market efficiently fresh and dried field or greenhouse flowers, foliage and related plant materials, including the arranging, packaging and marketing of these materials, for ornamental purposes.

Food Science and Technology

Involves students who work for wages and/or experiences in applying microbiology, food biochemistry or food product research and development to improve taste, nutrition, quality and/or the value of food. Programs can include research, new product development, food testing, grading and inspecting.

Forage Production

Involves the use of the best management practices available to produce and market efficiently forage crops such as non-grain sorghum, alfalfa, clover, brome grass, orchard grass, grain forages, corn or grass silages and pasture.

Forest Management and Products

Involves the use of the best management practices available to conserve or increase the economic value of a forest and/or forest products through such practices a thinning, pruning, weeding, stand improvement, reforestation, insect and disease control, planting and harvesting. It can include experience with the Forest Service, Christmas tree farming, as well as making and selling cedar shakes, firewood and wood ships/mulch.

Grain Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market efficiently grain crops such as corn, barley (including the malting types), millet, buckwheat, oats, grain sorghum, milo, wheat, rice and rye. (Grain production would not include any of the previously mentioned crops where its intended use is for forage.)

Home and/or Community Development

Typically involves improving and protecting the beauty of an area by using natural vegetation or commercial ornamental plants. This area can include activities to modernize a home for better health and comfort by installing or improving water and sanitary facilities, heating and air conditioning or labor saving devices. It can include community and betterment and development activities such as volunteerism to improve the community.

Landscape Management

Typically involves experiences of planting and maintaining plants and shrubs landscaping and outdoor beautification, installing sprinklers and improving recreational areas.

Nursery Operations

Typically provides students with job-entry experiences in areas such as shrubs, tree or other plant production for the purpose of transplanting or propagation. It can include water garden plants produced for sale.

Outdoor Recreation

Typically involves outdoor recreational activities as the primary land use. Some activities best suited to family use or as income-producing enterprises include vacation cabins and cottages, camping areas, fishing, hunting, shooting preserves, guide services, riding stables, vacation farms and guest ranches, natural scenic or historic areas and rodeo events where members do not own or manage horses.

Pomology Production Entrepreneurship/Placement

Involves the use of the best management practices to produce and market efficiently fruit crops such as stone, pome, and citrus fruits; pineapples; coconuts; berries; watermelon; grapes; nuts and all common fruits. (Pome fruits include apples, mayhaws and pears. Stone fruits include peaches, nectarines, plums, apricots, and cherries.)

Poultry Production

Involves the use of the best management practices available to produce and market efficiently domestic fowl such as duck, geese and guinea; chickens; as well as turkeys and their products.

Sheep Production

Involves the use of the best management practices available to produce and market sheep and wool efficiently.

Small Animal Production and Care

Involves the use of the best management practices available to manage, produce and/or market efficiently small pet animals such as rabbits (for pets), cats, dogs, mice, hedgehogs and guinea pigs. Programs can typically provide a service where students care for the well-being of pets. They can also include working at a pet shop or kennel, grooming or training dogs, as well as serving as a veterinary assistant or providing pet sitting service.

Specialty Animal Production Entrepreneurship/Placement

Involves the use of the best management practices available to manage, produce and market efficiently specialty animals covered by none of the existing award categories, including bees, goats, mules, donkeys, miniature horses, meat rabbits, mink, worms, ostriches, emus, alpacas or llamas. Placement experiences can involve working at zoo or at any specialty animal facility.

Specialty Crop Production

Involves the use of the best management practices available to produce and market efficiently crops covered by none of the existing award categories, including sugar beets, dry edible beans, gourds, tobacco, popcorn, Indian and other specialty corns, grass seed, herbs and spices, mushrooms, sugar cane, hops, sorghum cane, confectionary sunflowers or crop seed.

Swine Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market swine efficiently.

Turf Grass Management

Typically involves the planting and maintaining of turf for outdoor beautification, owning a lawn mowing service, improving recreational areas, producing sod for sale and managing golf courses.

Vegetable Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market efficiently crops such as beans, potatoes, pumpkins, sweet corn, tomatoes, onions, zucchini, hot peppers, as well as all canning and common garden vegetables.

Viticulture Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market efficiently grapes and/or their by-products.

Wildlife Production and Management Entrepreneurship/Placement

Typically involves activities to improve the availability of fish and wildlife through practices such as trapping, stocking fish and wild game or those that develop new or improve existing land and water habitats for wildlife. This proficiency can include experiences with Fish and Wildlife Departments and Department of Natural Resources. Wildlife, and wild species of ducks, geese, quail and pheasants are eligible in this area if used as an income enterprise.

JUDGING TEAMS

Throughout the year, members of the Shafter FFA Chapter participate in a variety of different judging teams. A judging team is an extension of the classroom and allows members to experience detailed instruction within a particular area of agriculture. In addition, participation in a judging team helps students develop leadership skills and allows them to be recognized for their achievements. The following teams are available for students to become involved in this year:

Vegetable Judging
Pest
Floral Judging

Contests

B.I.G	P.O.A
Creed	Prepared Public Speaking
Parliamentary Procedure	Extemporaneous Speaking
Opening and Closing	Novice records
Impromptu Speaking	Banking
Co-Ops	Job Interview

COMMUNITY SERVICE ACTIVITIES

In an effort to make a positive difference in the community, the Shafter FFA Chapter actively participates in a number of community service activities each year. These activities allow FFA members to get involved and make the Shafter community a better place to live and work.

FUNDRAISING ACTIVITIES

The Shafter FFA Chapter is a non-profit, self-supporting organization. The money made from our various fundraising efforts is used to finance FFA events and activities throughout the year.

HISTORY OF SHAFTER FFA

State Officers

1984 Treasurer: John Paveltich

1985 Treasurer: Paul Paveltich

American FFA Degree Recipients

1985 John Paveltich

1987 Paul Paveltich

2006 Noel Penner

James Dewhirst

Dee Anne Kroeker

2010 Matt Whitbey

Elizabeth Wilson

2015 Taylor Sanders

State FFA Degree Recipients

1937	Herbert Neuman
1938	Louis Starrh
1939	Walter Kirschenmann
	Alvin Robinson
1945	Charles Hitchcock
	Fred Starrh
	Donald Zachary
1946	Marvin Kirschenmann
1947	Tom Fletcher
	Leland Kroeker
	Steve Rodriguez
1950	Dee Wilson
1952	Leroy Kirschenmann
1954	Woody Wilson
1955	Sam Parker
1961	Gordan Kirschenmann
1975	Mary Dawson
1977	Ted Elrich
	Charles Hussey
	Scott Pavletich
	Cindy Sapp
1979	Carey Hall
	Ralph Hoover
1980	Dawn Hanselman
	Angie McNabb
	Brock Sapp
	Marty Tasos
	Wayne Williams
1982	John Pavletich
1983	Scott Brant
	Kim Handel
1984	Marshall Bassett
	Anthony Nobles
	Paul Pavletich
	Leland Villalvazo
	David Whitbey
1985	Deene Bittleston
	Tim Deeney
	Steve Wilson
1986	Darrel Grace
	Darrin Filkins
	Andy Love
	Dennis Utt
	Becky Smith
	Teresa Smith
	Dawn Wadman
	Dawnielle Delozier
	Glenn Creekmore
1987	Becky Sapp
	Sam Wilson
	Rey DeLon
	Julie Jameson
	Chad Everett
	Kari Heinsohn
	Joe Smith
	Jack Janzen
	Bibi Carasco
	Kristie Krause
	Stephanie Cortez
	John Hill
	Kristen Zachary
	Laura Reynolds
1988	Bob Bryant
	Scott Chance

1988 Dominic Lucas
con. Jeff Clayton

1989 Terry Clayton
Shawna McCune
Traci Dewar

2002 David Whitbey

2004 Brysen Nixon
Jordan Reimer

2006 James Dewhirst
Dee Ann Kroeker
Colton Parrish
Noelle Penner
Ismael Rendon

2007 Mitchell Deathrage
Elizabeth Wilson
Katelyn Riley
Jacky Aaron
Matt Whitbey
Melissa Bloemhof
Mallory Hansard

2008 Jorge Portillo

2009 Clayton Parrish

2014 Micah Adams
Wilson Hansard
Ashley Hasty
Taylor Sanders
Mason Zaninovich

2015 Christian Acosta
Riley Aguayo
Yazil Castro
Alyssa Hill
Malu Reyes
Carla Tamayo

2016 Victor Diaz
Fernando Garcia
Samantha Johnson
Angelica Lopez
Mayra Lopez
Ashley Mireles
Celeste Ortiz
Maylee Salas
Michael Sharp
Anthony Tucker
Elizabeth Vargas

2017 Samantha Cabrera
Brenda Cuevas
Dustin Giuntoli
Nallely Hermosillo
Yamilet Lopez
Joseph McManus
Maria Meza
Danya Miranda
Carlos Munoz
Pamela Perez
Steve Perez
Genesis Serna
Favian Trujillo

State Champion Judging Teams

1933 Dairy Products

1936 Dairy Products

Policy for Kern County Fair Eligibility

The following list is eligibility requirements for students to exhibit animals through Shafter FFA at the Kern County Fair.

To Be Eligible:

Current Students (Grades 9-12 at the time of the Fair)

1) Students must be members in good standing with the Shafter FFA chapter and enrolled in an Agriculture class taught by a credentialed Ag teacher. Student must maintain a 2.0 GPA and be passing all classes. You must be passing your Ag class with a C or higher. No F's will be acceptable and no more than one D in any classes. If you are not passing a class we cannot pull you out of class for fair.

2) A student cannot switch affiliations (FFA, 4-H, Independent) more than once. If you switch upon entering high school, you must show FFA for the duration of your time at Shafter High School. Once you switch once you must show that species for the organization you switched to.

3) All money, fair and farm contracts, and guidelines must be signed and turned in prior to receiving an animal, if the set deadlines are not met, student will forfeit their right to show for Shafter FFA.

4) To be eligible to show for Shafter High School, the following criteria must be met by the student: Participated in 5 activities at the chapter level, 2 activities above the chapter level, and 8 hours of community service recorded in their SAE Record Book. *Does not to apply to incoming 8th graders.

5) Students must satisfactorily keep record books up to date according to their assigned advisor.

Graduate Students

1) A graduate student of the program can exhibit at the Kern County Fair with the species advisor permission one year following graduation from high school.

2) Graduate student MUST be enrolled in an Agriculture class during their ENTIRE senior year with satisfactory attendance and 2.0 GPA to be eligible.

3) Students must satisfactorily keep record books up to date according to their assigned advisor.

4) A graduate student must be actively seeking to achieve the goal of receiving their American FFA Degree in order to exhibit livestock, and this project will help them achieve their goal.

5) Graduate students will have last priority to use the school farm facility. If the facility is full, then it is the graduate's responsibility to locate housing for the project.

6) Graduate students must be responsible for feeding, caring and attending showmanship practices during the summer.

7) At fair, the graduate student must participate in the market class, showmanship class, and barn duty in order to sell your animal under Shafter FFA.

8) All graduates will adhere to all Shafter FFA and Kern High School District policies.

Shafter FFA School Farm Contract

It is a privilege to keep and house a project at the school farm. Along with this privilege come certain expectations and responsibilities. The instructors are here to guide you with your project, not to maintain and care for the project. It is your responsibility to care for and manage your project.

You share the farm with fellow students; therefore, cooperation and teamwork are expected. Even though these are individual projects, it will take a group effort to ensure everyone's success.

Below you will find a set of expectations that must be followed in order to retain your privilege of using the school farm. Please read through these expectations with your parent/guardian. This contract must be signed and returned to your project advisor before your project begins at the farm.

General Rules

1. **Any students who does not follow the below set of rules will receive a written strike. After three strikes, the student will not be allowed to show for Shafter FFA and animal will be removed from school farm.**
2. When working with your animal, you are required to wear jeans and closed toed shoes for your safety. Shorts and open toed shoes are strictly prohibited.
3. Any change to any farm structure or pen must receive prior authorization from your advisor.
4. The use of any school equipment must be under the direct supervision of an Agriculture Instructor.
5. For show projects, feed, supplies, and FFA jackets must be bought by the students.
6. The school farm is an extension of the school campus, therefore all school rules are in effect and proper behavior is expected at all times.
7. The farm must be kept neat and clean at all times. It is your responsibility to keep your project's designated area clean and free of debris. All trash must be put in proper receptacles. Failure to keep your area clean will result in a fine or working with the farm manager to make up for his lost time.
8. Motor vehicles are not allowed on the farm. All students and parents/guardians must walk onto the farm. Vehicles must be parked outside the farm.
9. No Dogs are allowed on the school farm at any time.
10. The farm will ONLY be open from 6am-7pm daily. Students, parents, or guardians can only be on the farm after hours IF an advisor is present. NO person is allowed on the farm without an advisor present. If you need to be on the farm after hours, you must schedule the time with an advisor a week in advance.
11. To be eligible to show a larger animal (commercial/dairy heifer or steer) you must have shown a smaller animal (pig, goat, or lamb.) the previous year. The only exception will be if you have shown a larger animal in 4-H, Grange, or as an Independent, or live on a dairy or ranch.
12. If the advisor(s) feel that you cannot handle the project or are not following rules, your project can be terminated at any point.
13. Record books must be current and meet the approval of the project advisor prior to loading your animal for fair.

Animals

14. Before purchasing an animal on your own you must have prior approval from the instructor.
15. The student exhibitor must buy and own their animal. No borrowed or leased animals will be exhibited at the Kern County Fair.
16. Instructors must have 24-hour notice before any projects are moved on or off the farm. Animals are not to be moved from one pen to another without advisor permission. Instructors have the right to refuse housing of any project at the school farm.
17. All animals must be fed at the agreed feeding times. In emergency situations, instructors must be notified and other arrangements must be made.

18. Under no circumstances are you allowed to give your animal any medication, without first clearing it with your advisor. The ONLY exception being that of a medicine that is administered in an emergency by a licensed veterinarian. However, it is still your responsibility to notify the advisor of the medication that was given to your animal.
19. In the event that an animal is abused (i.e. physical abuse, not being fed, neglected), you will be asked to remove your animal immediately. If student project is to be removed from School Farm facility, student will be given 48 hours to remove animal, if not removed in the required time span, arrangements will be made to take animal to sale and a transportation charge of $100.00 will be assessed to the student and the remaining profit from auction will be forwarded to the student.
20. If the student decides to take their animal off the farm for any reason, and brings back a disease or parasites, the student will be responsible for all cost incurred treating other school or student owned animals at their own expense.
21. It is mandatory for all students to be present when their animals are being transported to and from the fair for any reason (tagging). As well, the advisor will designate what days are mandatory for exhibitors to be present at the fair.

Breeding Projects

22. For breeding projects, students are responsible for purchasing their own feed, supplies, and paying a pen fee of $20 per animal per month. This means that the advisor and farm manager are not responsible for making sure that there is feed available for the animal(s).(See advisor for breeding contract)

Bills/Finances

23. Any vet bills that are incurred on animals kept at the school farm will be paid for by the student.
24. All students must obtain enough sponsors to cover 75% of all expenses prior to hauling animals to fair. Failure to do so will result in entries being pulled from the Kern County Fair. The student will then be responsible to find a buyer and have the animal removed from the farm no later than 2 weeks after the year's fair.

Project Meetings

25. All project meetings and farm clean-ups must be attended. If you cannot attend, prior arrangements must be made with the instructor. One week prior notice must be given. In cases of emergencies, please notify your instructor ASAP.
26. Each student is required to attend a weekly weigh meetings, and showmanship practices that are offered by the Advisor. After thirty minutes the practice will not be counted as being attended by the student regardless of their participation.
27. Animals that are not housed at the school farm must schedule project visits with their advisor and haul their own animals to fair.

Kern County Fair

28. If, at one week prior to fair, you are unable to control your animal or load it safely in and out of the trailer it will not be allowed to be hauled or allowed to be exhibited at the Kern County Fair. This is in the best interest of the student exhibitor and the public's safety.
29. During Kern County Fair all students are required to participate in showmanship as well as their appropriate market class. If a student misses their market class or auction because they were not paying attention- they will not be allowed to show the following year.
30.. Each student is responsible for fitting their own animals; students can work with each other as needed. There are absolutely no professional or amateur fitters allowed working on your animal. The advisor will appoint someone to demonstrate or show students what to do.
31. If any animal fails a drug test at the Kern County Fair, the student forfeits the right to show for Shafter FFA for life.

After the Fair

32. No Market Animals are allowed to be brought back to the school farm after the Kern County Fair. If your animal does not sell you are responsible to find a buyer and/or other housing for your animal.
33. A $50.00 cleaning fee will be assessed one week after the completion of fair if the student fails to properly clean their pen after the animal is removed.
34. **To receive fair checks, students are required to complete their record book, hand write Thank You cards (in self-addressed stamped envelopes), and pay any fees no later than two weeks after the conclusion of the Kern County Fair. Failure to do these items will disqualify the student from showing under Shafter FFA at the next year's fair.**

I agree to follow the rules and advice of the agriculture instructors throughout the duration of this project. I understand that breach of this contract can result in forfeiture of farm use or the possibility of being removed from the Agriculture Program at Shafter High School. I also understand that the Kern High School District and its personnel are in no way responsible for my project, feed or equipment.

Student Name _____ Student Signature _____

Parent Name _____ Parent Signature _____
Advisor Name _____ Advisor Signature _____
Date _____

Shafter FFA Parent's Code of Conduct

Student Name: _____ **Date:** _____

As a parent and role model, parents and coaches shall maintain a high level of professionalism at the Kern County Fair.

Before an event, every parent of each exhibitor shall:
1.1 Inform students of show rules;
1.2 Be aware of schedules;
1.3 Prepare students for show content and safety guidelines;
1.4 Be a good adult role model.

During a contest every parent of an exhibitor shall:
2.1 Assist contest officials when needed;
2.2 Abide by rules and expectations for that particular event including but not limited to rules regarding physical location;
2.3 Ensure student cell phones are not in use;
2.4 Act in a professional and ethical manner.

After the contest every parent of an exhibitor shall;
3.1 Conduct themselves in a professional manner during critique and awards;
3.2 Treat contest officials and other fair committee members with respect;
3.3 Be a good role model for their team;
3.4 Model good sportsmanship;
3.5 Present any protests or inquiries according to Kern County Fair policies;

At any time in relation to the show, parents shall:
4.1 Behave in a professional manner;
4.2 Refrain from knowingly providing misleading or incorrect information
4.3 Avoid creating or taking part in confrontational situations involving fair officials, other parents, or Agriculture Teacher.
4.4 Follow contest rules or guidelines;
4.5 Avoid encouraging or allowing any student to break contest rules;
4.6 Avoid intentionally putting a student or another person in harm's way.

If a contest supervisor or agriculture teacher finds a parent to be in violation of the Code of Conduct, the said contest supervisor or teacher will turn the parent over to the Kern County Fair Livestock Office. The Livestock Office will then determine the consequences for the parent. By signing below you agree to the above guidelines.

_____ _____

Parent Name Parent Signature

SHAFTER FFA CHAPTER CONSTITUTION

ARTICLE I – Name and Purposes

Section A The name of this organization shall be the "Shafter Chapter of the Future Farmers of America" and the letters, "FFA" may be used to designate the chapter, its activities, or members thereof.

Section B The purposes for which this chapter is formed are as follows:

1. To develop competent and aggressive agricultural leadership.
2. To create and nurture a love of agricultural life.
3. To strengthen the confidence of students of vocational agriculture in themselves and their work.
4. To create more interest in the intelligent choice of agricultural occupations.
5. To encourage members in the development of individual occupational experience programs and establishment in agricultural careers.
6. To encourage members to improve the home and its surroundings.
7. To participate in worthy undertakings for the improvement of the industry of agriculture.
8. To develop character, train for useful citizenship, and foster patriotism.
9. To participate in cooperative effort.
10. To encourage and practice thrift.
11. To encourage improvement in scholarship.
12. To provide and encourage the development of organized recreational activities.

ARTICLE II – Organization

Section A The Shafter Chapter of FFA is a chartered local unit of the South Valley Section in the California Association of Future Farmers of America which is chartered by the National FFA Organization.

Section B This chapter accepts in full the provisions of the constitution and bylaws of the San Joaquin Region Constitution, California Association of FFA as well as those of the National FFA Organization.

ARTICLE III – Membership

Section A Membership in this chapter shall be of three kinds: (1) Active; (2) Alumni; and (3) Honorary, as defined by the National FFA Constitution.

Section B The regular work of this chapter shall be carried on by the active membership who are enrolled at Shafter High School.

Section C Honorary membership in this chapter shall be limited to the Honorary Chapter FFA Degree.

Section .D Active members in good standing may vote on all business brought before the chapter. An active member shall be considered in good standing when:

1. They attend local chapter meetings with reasonable regularity.
2. They show an interest in, and take part in the affairs of the chapter.
3. Are properly affiliated with the state and national FFA organizations.

Section E Alumni members is limited to students that were active members their entire 12th grade year and graduated from Shafter High School.

Section F Paid FFA members are required to participate in chapter activities as a portion of their grade.

ARTICLE IV – Emblems

Section A The emblem of the FFA shall be the emblem for the chapter.

Section B Emblems used by the members shall be designated by the national organization of FFA.

ARTICLE V – Membership Degrees and Privileges

Section A There shall be four grades of active membership in this chapter. These grades are: (1) The Greenhand FFA Degree, (2) The Chapter FFA Degree, (3) The State FFA Degree, and (4) The American FFA Degree.

All "Greenhands" are entitled to wear the regulation bronze emblem pin. All members holding the Degree of Chapter FFA are entitled to wear the silver emblem pin All members holding the State FFA Degree are entitled to wear the regulation gold emblem charm. All members holding the American FFA Degree are entitled to wear the regulation gold emblem key.

Section B Greenhand FFA Degree. Minimum qualifications for election: (Refer to State Constitution for a complete list of degree requirements.)

1. Be regularly enrolled in a class in vocational education course for an agricultural occupation and have satisfactory and acceptable plans for a program of supervised farming, and/or other agricultural occupational experiences.
2. Learn and explain the FFA Creed, Motto, and Salute.
3. Describe the FFA emblem, colors, and symbols.
4. Explain the proper use of the FFA jacket.
5. Have satisfactory knowledge of the history of the organization.
6. Know the duties and responsibilities of the FFA members.
7. Personally own or have access to Official FFA Manual.
8. Submit written application for the Degree for Chapter records.

Section C Chapter FFA Degree. Minimum qualifications for election: (Refer to State Constitution for a complete list of degree requirements.)

1. Must have the Degree of Greenhand and have a record of satisfactory participation in the activities of the local chapter.
2. Must have satisfactorily completed at least one year of instruction in vocational agriculture, have in operation an approved supervised farming, and/or other agricultural occupational experience program, and be regularly enrolled in a vocational agriculture class.
3. Be familiar with the purposes and programs of activities of the state association and national organization.
4. Be familiar with the provisions of the constitution of the local chapter.
5. Be familiar with parliamentary procedure.
6. Be able to lead a group discussion for fifteen minutes.
7. Must have earned by his/ her own efforts from his/ her supervised farming and/or other agricultural occupations program and deposited in a bank or otherwise productively invested at least $150 or worked 100 hours on his/her SAE in excess of scheduled class time.

Section D State FFA Degree: Minimum qualifications for election:

1. Qualifications for the State FFA Degree are those set forth in the Constitution of the State Association

Section E American FFA Degree. Minimum qualifications for election:

1. Qualifications for the American FFA Degree are those set forth in the Constitution of the National FFA Organization.

Section F Special Committees shall review the qualifications of members and make recommendations to the chapter concerning degree advancement.

ARTICLE VI – Officers

Section A The officers of the chapter shall be as follows: President, Vice President, Secretary, Treasurer, Reporter, and Sentinel. 2nd Vice President, Historian, and two committee chairs may also be elected depending on the amount of students running for office. The local Advisor shall be the teacher of vocational agriculture in the school where the chapter is located. Officers shall perform the usual duties of their respective offices.

1. There shall be an election of six freshman students to be Greenhand Officers in the fall of each year.

Section B Officers must have and maintain a 2.0 GPA and a "C" or higher in all their agriculture classes.

Section C All elected chapter officers shall hold their office position for one year. The annual officer tenure is Banquet to Banquet.

Section D The officers of the chapter together with the chairmen in charge of the major sections of the annual program of activities shall constitute the Chapter Executive Committee. The Executive Committee shall have full power to act as necessary for the chapter in accordance with actions taken at chapter meetings and various regulations or bylaws adopted from time to time.

Section E All officers will partake in 100% of our chapter meetings unless a valid reason is provided. Notification of not being able to attend should be made to an advisor before the meeting.

Section F All officers are required to fulfill their officer contract.

Section G Recognition of officers at our annual banquet will depend on the completion of the officer contract and the discretion of the advisor.

Section H Process of selecting chapter officers is as follows

1. Members will vote for 6-8 candidates per ballot.
2. Once votes are counted, the candidates with the highest cumulative scores become the officer team. The scores will consist of: Speech, participation in the chapter, interview, teacher recommendation, votes, and application.
3. The interview committee will consist of the advisors and senior officer members.
4. Once the top candidates have been selected all the advisors will discuss and choose positions for those officers.

Section I The recommendations for a candidate's resume interested in the chapter President's position will be as follows:

1. Preferably a junior or senior
2. Two years or more in the Shafter FFA and agriculture program
3. Earned the Chapter Degree
4. Been a State FFA Conference Delegate
5. Participated in the following:
   a. Opening and Closing Ceremonies Contest
   b. Any Public Speaking Contest (prepared, extemporaneous, or impromptu)
   c. Have been trained in and properly used Parliamentary Procedure.
   d. Chaired an event
   e. Maintained a 2.0 GPA overall and 80% in their agriculture class.

If there are no qualified junior or senior according to the above rules, the four advisors may recommend a sophomore to the position of President.

Section J Officer Removal:

1. The removal of an officer will be carried out when the officer is showing neglect of irresponsibility toward their office position.
2. The officer's contract and the records kept by both the Secretary and the advisors will be used to evaluate the officer.
3. An officer will be removed by letter and direct conversation with the advisors.
4. Reasons for Removal
   a. Student breaks a major rule regarding the chapter or KHSD policies.
   b. Section E & F are not fulfilled.
   c. Student cannot maintain a 2.0 GPA in all their subject areas (see # 5).
   d. Student must maintain a C in all their Ag class.
   e. Student abusing the FFA Code of Ethics.
   f. Student breaches 3 Strike Rule (3 strike rule consists of 3 violations of the officer contract at the advisors discretion with formal documentation to be brought before the officer). .
5. Regarding letter grade or GPA:
   a. Student is put on one quarter probation to get back into good standing with the office position.
   b. If probation is during first quarter of spring, then the officer recognition award will be held until progress report is turned in by the instruction approximately one week before banquet

Section K When an officer position becomes void prior to the termination of its contract the historian or one of the committee members may be moved up if applicable and with advisor approval. If there is no historian or committee member, then the next highest ranking candidate will fill the position.

Section L The officer contract will be developed by the advisors. They will be in contract form and require at least four signature- the officer, the parent/guardian of the officer, and two advisors.

Section M An FFA member who chooses to run for a higher office position (sectional, regional, or state) must meet the following requirements:

1. Been a chapter officer who is in good standing or have advisor recommendation
2. Participated in Opening and Closing Ceremonies Contest and a Public Speaking Contest.
3. Must have been trained in and properly used Parliamentary Procedure.
4. Must have earned at least 125 points or more from August to February.

Section N The duties of the Executive Committee and four advisors will be as follows:

1. Meet every Wednesday at lunch; excluding finals, school breaks, and when more than two advisors cannot be present.
2. Enforce the Constitution and Bylaws.

ARTICLE VII – Meetings

Section A Regular chapter meetings shall be held once a month during the school year and once during the remaining months of the year at such time and place as is designated by the Chapter Executive Committee. Special meetings may be called at any time.

Section B Standard meeting equipment shall be used at each meeting. All regular meetings shall open and close with the official ceremony. Parliamentary procedure shall be used in transacting all business at each meeting.

Section C Delegates, as specified by the State Constitution, shall be elected annually from the active membership to represent the chapter at the State Leadership Conference. Other delegates may be named as necessary in order to have proper representation at various other FFA meetings within the State.

Section D A majority of the active members listed on the secretary's membership roll shall constitute a quorum, and a quorum must be present at any meeting at which business is transacted or a vote taken committing the chapter to any proposal or action.

ARTICLE VIII – Leadership Conferences

State Conference

Section A The following are how members shall be selected to attend:

1. Freshman to Seniors may attend
2. A senior must earn the right to go to state convention. The following will determine their participation:
   a. Participation in a State Competition
   b. Receiving a State Level Award
   c. Running for State Office
   d. Advisor approval based on activity in the chapter
3. All freshman to junior students will be selected based on the following criteria:
   a. The first students to turn in their application and deposit money by the given date and time.
   b. Have a 2.0 GPA
   c. Participation and attitude in the Shafter FFA chapter.

Other Leadership Conferences

Section A This section of Article VIII includes Greenhand Leadership Conference, Made For Excellence and Advanced Leadership Academy.

Section B Members will be chosen by advisors to represent Shafter at the conference.

1. Attendees may be asked to go or will have to sign up with the advisors in order to be chosen.
2. In some cases an application may need to be filled out.

Section C Conferences will be paid for by the individual, chapter, or a combination of both depending on the conference.

Section D Overnight Trips- All KHSD rules and chapter rules will be enforced.

ARTICLE IX – Kern County Fair

Section A A student must be a paid member enrolled in the Shafter Agriculture Program, or continuing their education during their junior/senior year in an agriculture class at the ROC facility.

Section B Students must be active in their participation in the Shafter FFA. This means the student must have participated in 5 chapter activities and 2 above the chapter activities by the time the first Fair Meeting is held.

Section C A student is required to have a 2.0 overall GPA and "C" or better in all their agriculture classes.

Section D A student will follow all KHSD, Kern County Fair, and Shafter FFA Farm Contract rules. If they are not followed the student will not be allowed to show for Shafter FFA.

Section E The rules that will need to be followed will be set each year at the Fair Meeting in the spring.

Section F All signed contracts, grade checks, and paperwork must be turned in to the species advisor before the student may start their project.

Section G The Kern County Fair is a school function and all school and KHSD rules must be followed. If they are not the student will report to the Dean of Students and be removed from participation of the fair.

Section H Incoming Freshman must take the following steps in order to show:

1. Meet with the species advisor in person.
2. Discuss the responsibilities and requirements associated with the project
3. Signed contracts, costs and payments made in advance to the start of the project.

Section I An alumni student may show under Shafter FFA if the following are true:

1. Are actively pursuing the American Degree
2. Completed their entire 12th grade year in the Shafter FFA program
3. Graduated from Shafter High School with a cumulative GPA of 2.0
4. Passed all their agriculture classes their senior year with a "C" or better
5. All previous record books are completed and up to date
6. Wears the Shafter FFA Jacket during all classes they are showing in the Kern County Fair.

Section J If a student enrolls in the Shafter FFA program and then drops out of the classroom at any point (before or after fair, at the fall semester, in the spring, or at the end of the year) the student loses their privilege to show for the Shafter FFA.

Section K If a student who is enrolled in Shafter FFA program has an animal on the Shafter Farm Facility and decides to drop the program or not show for Shafter FFA, they must move their animal off the Farm immediately.

ARTICLE X – The Classroom and Farm Laboratory

Section A The goal of the classroom is to teach students an appreciation of what agriculture is and how it affects our daily lives.

Section B The goal of the FFA is to teach students an appreciation of leadership. The FFA is an integral part of the grading that takes place in the classroom.

Section C Overall grading will consist of participation in the classroom, FFA, outside performance on the two acre Farm Laboratory, and extra credit (at teacher's discretion).

Section D It is the choice of the student to take the classes in the Shafter Agriculture Program. If the student does not wish to abide by the rules of the program and the KHSD, then they lose the liberty of returning the following year (or semester).

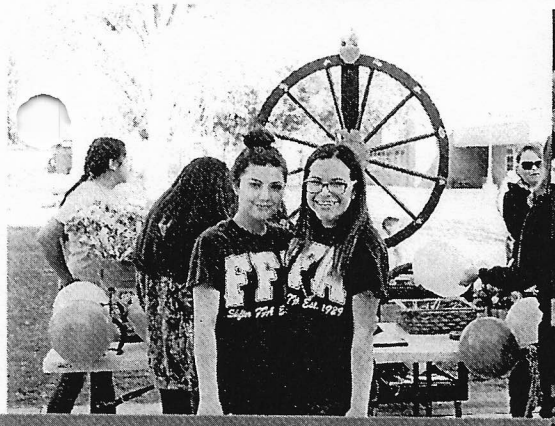
Section E The Farm Laboratory site will be used as a hands on learning facility. All classroom and KHSD rules apply as the farm is an extension of Shafter High School.

Section F The goal is to create a fun and safe learning environment that can be utilized by the agriculture students and serves as a teaching tool for all grade levels that visit the facility.

ARTICLE XI - Amendments

Section A This constitution may be amended or changed at any regular chapter meeting by a two-thirds vote of the active members present providing it is not in conflict with the state association constitution or that of the National FFA Organization.

Section B Bylaws may be adopted to fit the needs of the chapter at any regular chapter meeting by a two-thirds vote of the active members present providing such bylaws conflict in no way with the constitution and bylaws of either the state association or the national organization.



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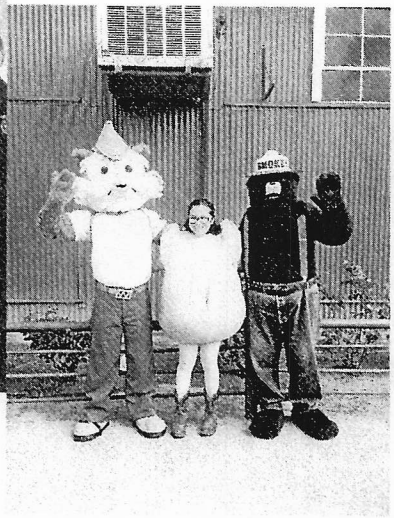
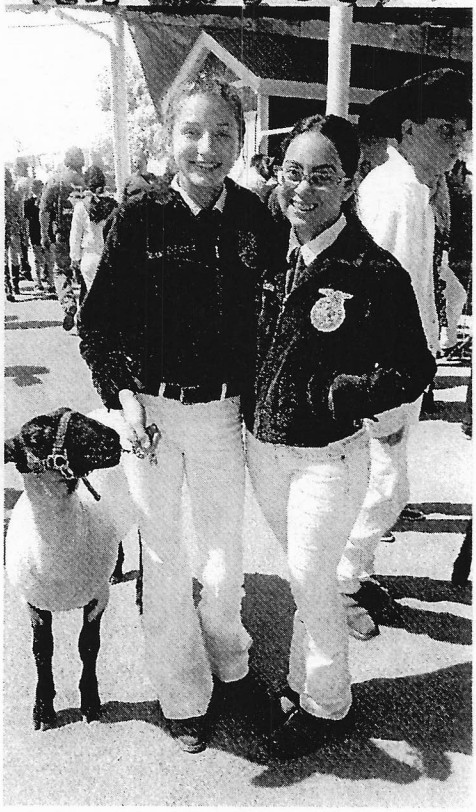
FAMILY





Appendix

Dear Parents and SHS FFA Exhibitors,

We are excited for your student's interest in a livestock project for the Kern County Fair. Livestock projects are a great way for students to "learn by doing." Students will learn valuable skills such as responsibility, commitment, and work ethic outside of the classroom setting. Livestock projects require a great deal of commitment from both the student and the parent. The outcome at fair is directly tied to how much time and effort students put into these projects over the summer.

Ownership period is a minimum of 60 days. We will be starting these projects at the end of the current school year. The exact start date will vary by species. These projects will require a commitment from both the parent and student throughout the summer until the conclusion of the 2017 Kern County Fair in October. Students will be responsible for training their animal to walk and setup for showmanship daily as well as attend weekly showmanship practices. Students will have to feed and check on their animal in the morning and again at night as well as keep their pen and livestock barn clean. For the entire duration of the project students will be required to log on to their AET record book and keep track of expenses, income, and hours worked. This commitment should not be taken lightly students will often show in their record books over 500 hours invested in an individual project. While you may go on a family vacation no other student will know your animal as well as you do or take care of your animal as well as you do.

Livestock projects also require a financial commitment. Students will not be receiving their fair checks until December or January. Below is an estimated budget for all animals. Additional expenses may be required if your animal is underweight or if your animal gets sick and a veterinarian is called out. All Students are responsible for purchasing their own feed and supplies for the duration of the project.

Expenses	
Market Animal (Hog, Sheep, Goat)	$ 350.00
Feed	$ 320.00
Entry Fees	$ 45.00
Insurance	$15.00
Supplements and Medicine	$100.00
Shavings	$50
Equipment	$ 30.00
TOTAL EXPENSES	$ 910

Income

Sale at Fair	$ 500-700.00 (average price without Buyer 9)
Profit/Loss	***$ -200***

Supervised Agriculture Experience projects are a key component of an agriculture department. Showing livestock at the Kern County Fair is not a requirement for Shafter FFA members. Students can have agribusiness, agriscience, or plant based SAE instead of livestock. Due to the limited space at the Shafter High farm and the limited resources of the Shafter High Agriculture department an application process for showing livestock will begin in February. Students are able to choose to show either sheep, goats, poultry, or hogs. Below are a few of the requirements students will have to have met to be eligible to show for Shafter FFA.

Eligibility Requirements

- Prior to being allowed to show for Shafter High School, the following criteria must be met by the student: Participated at 5 activities at the chapter level, 2 activities above the chapter level, and 5 hours of community service recorded in their SAE Record Book.
- Students must be members in good standing with the Shafter FFA chapter and enrolled in an Agriculture class. Student must maintain a 2.0 GPA and be passing all classes. Only one D is acceptable, and you cannot have any F's. Students must have a C or better in their Agriculture class. If you cannot pass your class we do not see that you will be able to take care of an animal on a daily basis.

Graduate Eligibility Requirements:

- Graduate student MUST be enrolled in an Agriculture class during their ENTIRE senior year with satisfactory attendance and 3.0 GPA to be eligible.
- A graduate student must be actively seeking to achieve the goal of receiving their American FFA Degree in order to exhibit livestock, and this project will help them achieve their goal. Students should be within 150 hours and or $1000 of earning their American degree. There must be a purpose to this student exhibiting; they cannot show because they want to show.

We look forward to answering any questions you may have and helping to prepare your student for the best project to fit their needs. Any questions may be emailed to elizabeth_bledsoe@kernhigh.org .

Sincerely,

Elizabeth Bledsoe, Mark Morales, Teddi Nichols, and Ellen Renick

Kern County Fair Livestock Exhibitor Application

Applicant's Name:

Student ID:

Year in FFA: (1,2,3, and 4)

Do you need to keep you animal(s) at the school farm?

Yes	No

Species Desired:

You may list more than one. List your first choice first. DO NOT LIST SPECIES YOU DO NOT WANT TO SHOW.

1.	2.
3.	4.
5.	6.

Do you want to show more than one species if available? (Circle)

Yes	No

Would you like to show small animal if available? (Circle)

Yes	No

Which small stock species would you like to show? (If yes above)

Turkey Chicken Rabbit Cavies

Please attach the following documents to your application (check them off after you attach)

☐ **Transcripts:** Must be a minimum 2.0 with a C or better in all Ag Classes.

☐ **Complete Recordbook Report (AET)**

Due: / /

General FFA Involvement Points

In the boxes below, please list the NUMBER of activities that you have participated in at each level (chapter, section, region, state, and nationals). You can find this information in your AET recordbook under "Complete Recordbook Report" on the reports tab. Any activities not listed in the AET recordbook will not be counted towards your total score. Any applications that are found to be inaccurate will be immediately disqualified. This includes: 1) Adding more points to your application than you have actually earned 2) Counting activities under the wrong category 3) Adding activities to your recordbook that you have never competed/participated in.

Student exhibitors must have a minimum of 5 chapter and 2 activities above the chapter level.

*****Multiply your points in the box on the left by the number in the middle. Insert the total on the right.*****

Highlight yellow in Recordbook report	Number of Chapter Level Activities	x1 pt each	Total Chapter Points: 0
Highlight orange in Recordbook report	Number of Section Level Activities	x2 pt each	Total Section Points: 0
Highlight green in Recordbook report	Number of Region Level Activities	x3 pt each	Total Region Points: 0
Highlight blue in Recordbook report	Number of State Level Activities	x4 pt each	Total State Points: 0
Highlight pink in Recordbook report	Number of National Level Activities	x5 pt each	Total National Points: 0

Total General FFA Involvement Points: 0

Other Points

Below are the other school, community, SAE and FFA activities that we take into account in deciding which students will be selected to show at the Kern County Fair. Please see the smaller text below each field to determine where to find this information.

GPA Points

Please write your 9-12 TOTAL GPA into the box below. Must match the GPA on your transcripts. Multiply your GPA by 3, and put the number in the box on the right.

Transcripts | | x3 | GPA Points |

SEMESTERS of Agriculture Classes Taken

Includes all agriculture pathway classes completed or currently enrolled in. A full year of each agriculture class is 2 semesters. Please multiply the number of SEMESTERS of agriculture classes you have taken or are taking by 2 and put the number in the box on the right.

Line 5b AET Recordbook Report | | x2 pt each | Ag Class Points |

Number of FFA SAE Projects Completed/In Progress

Must include complete project plans, budgets (not applicable for placement SAEs), journal entries, and financial entries for each project to receive points. You may include your current SAE ONLY IF you have a current completed project plan, as well as budget and journal entries. Please multiply the number of SAEs in your recordbook by 5 and put the number in the box on the right.

Line 1 AET Recordbook Report | | x5 pt each | SAE Points |

Community Service

Please list the number of hours of community service that you have completed in the box below. Only community service recorded in the AET will be accepted. Community service must be rendered with a 501(c)3 non-profit organization. A maximum of 50 hours of community service will be counted towards your application. Please multiply your number of community service hours by 0.5 and put the number in the box on the right.

Section E Community Service AET Recordbook Report | | x0.5 pt each | Community Service Points |

Number of FFA Offices Held

Includes all FFA offices held at the chapter, section, region, and state level. Multiply the number of offices by 5 and insert the number in the box on the right.

Section C AET Recordbook Report | | x5 pt each | FFA Office Points |

Number of Proficiencies Won

You may count winning chapter, section, region, and state as seperate awards (earn 5pts each). Awards must be recorded in your recordbook. Multiply the number of proficiencies you have won by 5 and enter the total in the box on the right.

Section E FFA Competitions AET Recordbook Report | | x5 pt each | Proficiency Points |

Total Other Points

Kern County Fair Signature Page

Above the Chapter activity

In the box to the right, please list the ABOVE THE CHAPTER LEVEL activity that you have/will participate in during the 2016-2017 school year. **Failure to compete above the Chapter level activity will result in your removal from the showing list.**

The show list will be based upon the number of total weighted points accumulated by each student. The number of points each students has will be divided by the number of years that they have been in agriculture classes at Shafter High School in order to determine the weighted average. Students will be ranked based upon total weighted points, and awarded their first choice animal as available down the list. Students who wish to show two SALEABLE ANIMALS (1 large and 1 small) must be in the top 20% of all applicants during that year in order to be eligible. Students below the top 20% may be eligible to show multiple species if space is available in their second choice species. There is no "magic number" of points that will guarantee students showing a livestock species. Top 20% will vary based upon applicants each year.

By signing below, I hereby certify that the information contained within is true and correct. I understand that any fraudulent applications will be disqualified without notice. I also certify that I understand that both student applicant and a parent/guardian must attend the exhibitor meeting in April or May (Date TBD) in order to be eligible to show, and that the student applicant must maintain a 2.0 GPA with no "F" grades for both semesters and a C or higher in their agriculture class. I also understand that applications will ONLY be accepted by returning exhibitors if the returning exhibitor obtains a signature from their previous species advisor. Advisor signatures must be obtained BEFORE parent signatures. Advisors may deduct points from applications if there were behavior, punctuality, or attendance issues at the previous year's fair.

TOTAL POINTS. Please add your "General FFA points" and your "Other Points totals.

_____
Student Signature

WEIGHTED TOTAL POINTS (please divide your total points by the number of years you have been in agriculture classes. Graduates, divide by 5.

_____
Parent Signature

Discipline/Attendance (Student has no major discipline problem or attendance problems)

_____
Dean of Students/ Vice Principle

_____
PREVIOUS Species Advisor Signature (Returning showmen only)

Notes regarding point deductions from previous species advisor:

POINT DEDUCTIONS

DO THIS BOX WITH PREVIOUS ADVISOR BEFORE PARENT SIGNATURE

Kern County Fair Financial Signature Page

Below outlines expected cost of the livestock project offered by Shafter High School Agriculture Department and the obligations of both the Agriculture Department and Exhibitors

Expenses

Market Animal (Hog, Sheep, Goat)	$ 350.00 +
Feed	$320.00
Entry Fees	$45.00
Insurance	$20.00 +/-
Supplements and Medicine	$100.00
Shavings	$50+/-
Equipment	$30.00
TOTAL EXPENSES	$915

Income

Sale at Fair	$ 500-700.00 (No Buyers are guaranteed. Students need to procure sponsors for at least their projects break even point.)
Profit/Loss	*-$200*

Permission of the Species Advisor is required before purchasing any animal that may be exhibited on behalf of Shafter FFA and Shafter High School
The Shafter FFA will not facilitate the purchase price of any animals or items. It is 100% the students/exhibitors responsibility to pay for all items including but not limited to: Livestock, Vet Bills, Feed and Fair Entries. Fair checks will be picked up by the advisor and will be given to students upon completion of all livestock

The USDA does offer project loans that are not affiliated with the school in any way. However, Students are still 100% responsible for repayment of the loan. Fair Checks are sent to the USDA and are not seen by Shafter High School. For More information please see an Advisor.

_____

Parent/ Guardian Signature

_____

Student Signature

Incoming Freshman

2017 Kern County Fair

Applicant Name:	
Student Phone Number:	
Parent Name:	
Parent Phone Number:	
Do you need to keep you animal(s) at the school farm?	Yes No
Species Desired: You may list more than one. List your first choice first.DO NOT LIST SPECIES YOU DON'T WANT TO SHOW. Species include: Sheep, Goats, Swine, and Poultry	1. 2. 3. 4. 5.
Do you want to show more than one species if available? (Circle)	Yes No
Would you like to **show small stock** if available? (Circle)	Yes No
Which small stock species would you like to show? **(If yes above)**	Turkey Chicken Rabbit

Please attach the following documents to your application (check them off after you attach)

Transcripts

Due: March 17th 2017

2017 Kern County Fair Financial Signature Page

Below outlines expected cost of the livestock project offered by Shafter High School Agriculture Department and the obligations of both Department and Exibitors

Expenses

Market Animal	$ 350.00 +
Feed	$320.00
Entry Fees	$45.00
Insurance	$20.00 +/-
Supplements a	$100.00
Shavings	$50+/-
Equipment	$30.00
TOTAL EXPEI	$915

Income

Sale at Fair	$ 500-700.00 (average price without Buyer 9 and no sponsors)
Profit/Loss	***-$200***

Permision of the Species Advisor is required before purchasing any animal that may be exibited on behalf of Shafter FFA and Shafter High School.
The Shafter FFA will not facilitate the purchase price of any animals or items. It is 100% the students/exibitors responsibility to pay for all items including but not limited to: Livestock, Vet Bills, Feed and Fair Entries.

The USDA does offer project loans that are not affiliated with the school in any way. However, Students are still 100% responsible for repayment of the loan. Fair Checks are sent to the USDA and are not seen by Shafter High School. For More information please see an Advisor.

_____

Parent/ Guardian Signature

_____

Student Signature

Incoming Freshman Signature Page

The show list will be based upon completion of the application. All students have an equal opportunity to show for Shafter FFA, but we are limited on space and resources. Therefore we will be accepting a small percentage of students from all grade levels. Incoming Freshman will not be penalized for lack for FFA involvement, but it will be expected in the future. If you are selected to show for Shafter students will be contacted to attend a parent informational meeting.

By signing below, I hereby certify that the information contained within is true and correct. I understand that any fraudulent applications will be disqualified without notice. I also certify that I understand that both student applicant and a parent/guardian must attend the exhibitor meeting in May (Date TBD) in order to be eligible to show, and that the student applicant must maintain a 2.0 GPA with no "F" grades for both semesters. I also understand that applications will ONLY be accepted by returning exhibitors if the returning exhibitor obtains a signature from their previous species advisor.

TOTAL POINTS. Please add your points

Student Signature

Parent Signature

Discipline/Attendance (Student has no major discipline problem or attendance problems)

Dean of Students/ Vice Principle

PREVIOUS Species Advisor Signature (Returning showmen only)

Notes regarding point deductions from previous species advisor:

POINT DEDUCTIONS

DO THIS BOX WITH PREVIOUS ADVISOR BEFORE PARENT SIGNATURE

SHAFTER FFA CHAPTER

Application for State FFA Leadership Conference
DUE to Ag Teacher by 3:30 on January 13, 2017.
NO MONEY WILL BE ACCEPTED AT THIS TIME.

Eligibility to Attend State FFA Leadership Conference
Students eligible must be a member in good standing with the Chapter and with Shafter High School. They must have a minimum 2.0 GPA and be able to attend the entire trip from Saturday April 22, 2017 to Tuesday April 25, 2017. Candidates must demonstrate active participation in events of the FFA Chapter. First priority will be given to students that have a reason for attending the conference (Contest, delegate, committee chair) and lower classmen. Registration costs will be paid by the FFA Chapter but any student that is selected to attend the conference will be responsible for **$200** to be applied towards the cost of hotel rooms. Students that are eligible to attend will receive permission slips on Wednesday January 18, 2017. We will be taking the first 27 students who turn in their paperwork and **receipt** of deposit of $40 to Ms. Bledsoe (room 1405) starting at 7:30AM on Thursday January 19th, 2017. Final payment for hotels will be due by March 31st. **Failure to cancel by April 3rd will result in the loss of your deposit and all money paid.**

Applicants Name: _____

Year in School: _____ **Student ID:** _____ **Ag Teacher:** _____

Do you have a reason for attending the State FFA Leadership Conference? ☐YES ☐NO

Explain Reason: _____

_____

1. Student's fall semester grade point average. _____
   Due to the fact students will be missing two school days for this leadership conference grades are extremely important. FFA members are students first and foremost therefore students with F's for semester grades will be ineligible. Students with two or more D's will be ineligible. We will look at students with 1 D on a case by case basis. Students must have a C or better in their agriculture class.

2. List all FFA CDEs you have participated in. Show the years and involvement.

3. List all FFA Offices you have held.

4. If you have not held an FFA Office yet have you ever ran for either Greenhand or Chapter Office. Please explain.

5. List the SAE(s) you have kept during your FFA career.

6. List other FFA activities that you have participated in at the chapter, section, region, and state level.

7. List all extracurricular school activities you participated in during high school. Include all other organizations, clubs and sports. Show the years that you participated and explain your involvement.

8. List all community activities. Include the years participated and explain your involvement. Also include offices held and any awards received. (Church, clubs, scouts, 4H and etc.)

9. List your future plans and goals for your involvement in the Shafter FFA program.

10. Have you ever been suspended or gotten in trouble and had to talk to the dean? Please explain the circumstances.

11. Additional comments by the applicant describing your reason for wanting to attend the FFA State Leadership Conference, and why you should be chosen. Answer carefully as this will have an impact on the selection of recipient.

I have read and understand the rules for eligibility and the cost of this FFA Conference Trip. I understand failure to cancel by April 4th will result in the loss of my deposit and all money paid.

Applicant signature: _____

Parent or guardian signature: _____

Recruitment Program

Each year in the spring, Shafter High School holds a Freshman Orientation and Registration. Orientation is designed to allow incoming freshman to see the club and extra-curricular activities they will be able to join in high school. We always have a booth at this night. We will talk to students and parents about what they must do if the student would like to join the agriculture program. We also have a booth at the registration night to make sure any students that did not make it to orientation know of the opportunity to join agriculture classes. Attached are the two items we use when at these events.

Shafter High Agriculture Department INTEREST form

"Why should I become a member of the Shafter High FFA Chapter?"

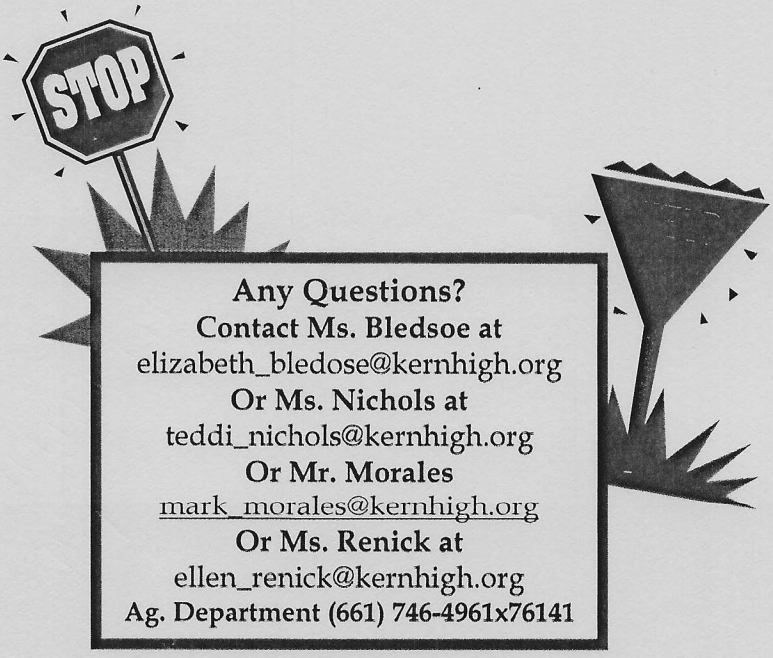
The Shafter High FFA is a **dynamic** youth organization that changes lives and prepares members for ***premier leadership***, ***personal growth*** and ***career success*** through agricultural education.

Half a million students across the country are becoming leaders, building self-esteem and preparing for career success. And they're having a great time in the process.

Members are future chemists, veterinarians, government officials, entrepreneurs, bankers, international business leaders, teachers and premier professionals in many career fields. ***The FFA results in tangible rewards!***

I am interested in the following activities/studies during my high school career:

- ☐ Scholarship money for college
- ☐ Leadership Conferences
- ☐ Public Speaking and Debate
- ☐ Science Courses
- ☐ Plants/Floral Design
- ☐ Animals/ Vet Science
- ☐ Showing at the Kern County Fair
- ☐ Mechanics/Welding



Name:_____

Telephone Number_____

Email Address _____

Parents/Guardians first and last names_____

Find us on Facebook

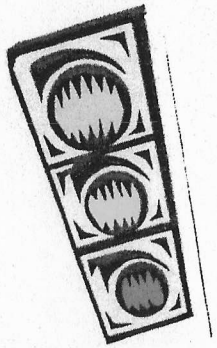
Facebook.com/ShafterFFA

www.shafterffa.com

Give Ag Classes The Green Light...

Do you like learning with your hands and not just out of a book? Then Agriculture Classes are right up your alley. You don't have to own animals or live on a farm to enjoy Ag classes. Agriculture encompasses a lot more than plows, cows, and sows.

Did you know that 1 in 6 jobs are related to agriculture? Agriculture accounts for over 7% of employment in California and 25% of employment in the Central Valley. And only 2% of those people are farmers! The other 18% are in fields like soil conservation, mechanics, surveying, and business. All of which you will get to sample and learn about by taking the Introduction to Agriculture Soil Science Class. By taking Introduction to Agriculture Soil you are giving the green light to many other classes you can enroll in through the Agriculture Department here at Shafter High School. These classes include: Agriculture Biology, Veterinary Science, Biotechnology and College Credit Courses: Floral Design, Agriculture Mechanics and Ag Welding. So don't be stuck at a red light, take Intro to Ag and learn about skills you can



See You on the First Day of School!

A-G Classes:

- Ag Soil Science (Physical Science)
- Ag Biology (Life Science)
- Floral Design I & II (Fine Art Credit)
- Biotechnology (Area D Lab Credit)
- Ag Government and Economics (12th)

Elective Classes: Beg.

- Ag Mechanics
- Ag Welding
- Fabrication
- Veterinary Science
- Leadership
- Horticulture

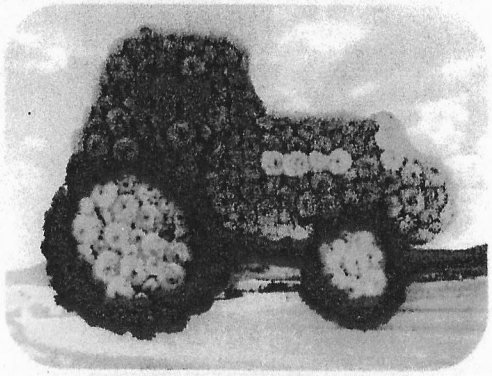
Dual Enrollment College Classes

- Floral Design I
- Ag Mechanics

Shafter High FFA Chapter
526 Mannel Ave
Shafter, CA 93263

Your Journey Through FFA ....

Oh The Places You Will Go...



Find us on Facebook

www.facebook.com/ShafterFFA

Your FFA Road Trip Starts

You Walk Into an Ag. Classroom For The First Time...

You Get "The Feeling" When You Zip Up You Blue Jacket For The First Time

Attend Greenhand Confer-
e and Find Out There Are
y Kids In Blue Jackets Just
Like You.

You Receive Your Greenhand Degree!!!

You Participate In FFA Week And Make Memories You'll Never Forget

u Prepare For You First Contest

You Compete at the Kern County Fair with your livestock project.

You Attend Your First State Convention With Thousands of Kids From Across California For Four Days In Fres-

You Begin Your Sophomore Year in Ag. Biology

Your Senior Year Begins And You Take Ag Economics

You Receive Your Chapter Degree and Run For A Chapter

You Spend 6 Days In Washington D.C. At Washington Leadership Conference!

Your Declared State Winner Of Your Proficiency Area.

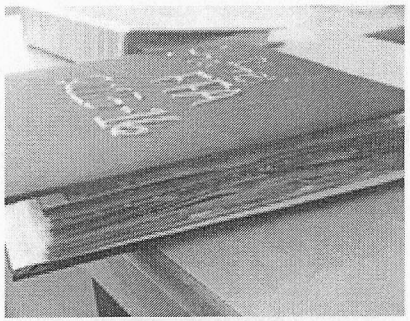
You Apply For College And Realize How Many Scholarships Are Just For FFA Members

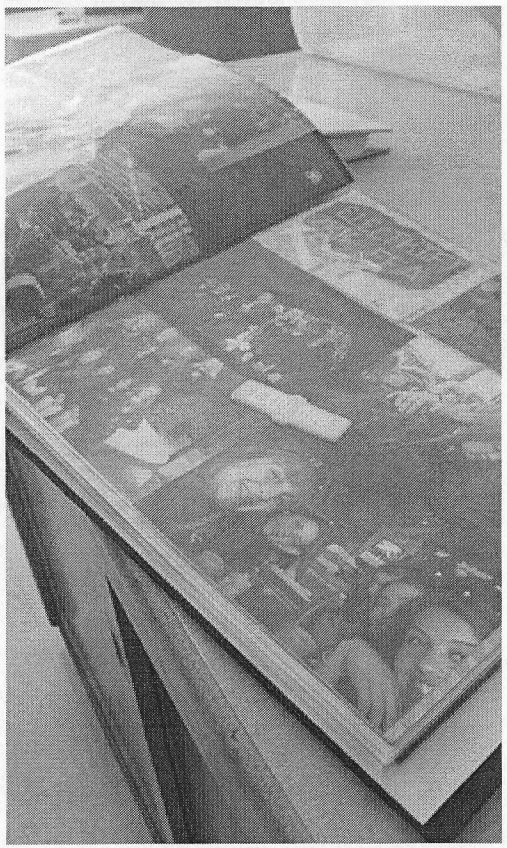
Your FFA Journey May Have Ended But What You Learned Stays With You Forever

Any Questions?
Contact Ms. Bledsoe at
elizabeth_bledose@kernhigh.org
Or Mr. Morales
mark_morales@kernhigh.org
Or Ms. Nichols at
teddi_nichols@kernhigh.org
Or Ms. Renick
ellen_renick@kernhigh.org
Department (661) 746-4961x76141

Chapter Scrapbook

This year our students put together their own scrapbook. We did not participate in the scrapbook contest so to our department the importance was not on getting the pictures in the FFA scrapbook. We also create an end of the year slideshow that is shown at our Banquet. This allows students to see the pictures taken throughout the year at one time. Below is a picture of the scrapbook created.





June 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6 Work Day	7	8	9	10	11 Lamb Shearing and Pick-Up
12	13	14 Lamb Showmanship 7pm	15 Officer Retreat	16	17	18
19 CATA Conference	20	21	22	23 AgriSkils	24	25
26	27	28 Lamb Showmanship 7pm	29	30		

Teddi Nichols

Phone: 805-415-6448
E-mail:
nicholsteddi@gmail.com

July 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6 Lamb Showmanship 7pm	7	8	9
10	11	12 Lamb Showmanship 7pm	13 **LAMB/GOAT Entries Due**	14	15	16 Lamb Tag In
17 Get Focused on Freshman Conf.	18	19 Lamb Showmanship 7 pm	20	21 Officer Team Work Day	22	23
24	25	26	27	28 Vacation	29	30
31						

August 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 Nichols Out	2 Lamb Showmanship 7pm	3 Officer Pictures	4	5 Rick Morris Seminar	6
7	8 Work Day	9	10	11	12	13
14	15	16 Lamb Showmanship 7pm	17	18	19	20 COLC Frontier 8:30 am
21	22	23 Lamb Showmanship 7pm	24	25	26	27
28	29	30 Lamb Showmanship 7pm	31			

REQUEST EDIT ACCESS

Graduate Follow Up Survey

This survey will allow Shafter FFA to follow what you are doing since you graduated from our program.

* Required

Name *

Your answer

Phone Number *

Your answer

E-mail *

Your answer

High School Graduation Year *

Your answer

Employment Status *

- ○ Full Time
- ○ Part Time
- ○ N/A

Employer (If employed)

Your answer

Military *

- Yes
- No

School Status (a)- Please list the school you are currently enrolled in (put N/A if not in school) *

Your answer

School Status (b)- Please list any other schools that you have been enrolled in since graduation

Your answer

College Major *

- Ag Major
- Non Ag Major
- No College

College Major *

Your answer

Full Time or Part Time Student *

Full Time or Part Time Student

- ○ Full Time
- ○ Part time
- ○ No College

The most valuable aspect of FFA to you is *

- ☐ Officer and Committee Chair Experience
- ☐ Judging Contests
- ☐ Recreation
- ☐ Parli Pro, Public Speaking, Creed Contests
- ☐ Advanced Degree and Proficiency Awards
- ☐ Other:

The least valuable aspect of FFA to you is *

- ☐ Officer and Committee Chair Experience
- ☐ Judging Contests
- ☐ [illegible]

- [ ] Recreation
- [ ] Parli Pro, Public Speaking, Creed Contests
- [ ] Advanced Degree and Proficiency Awards
- [ ] Other:

The most valuable aspect of SAE to you is *

- [ ] Learning skills related to agriculture jobs
- [ ] Development of responsibility
- [ ] Learning how to keep records
- [ ] Developing a record of agriculture experiences
- [ ] A chance to produce income
- [ ] Other:

Please add any comments about your time in FFA and how it prepared you for college and work after high school. *

Your answer

SUBMIT

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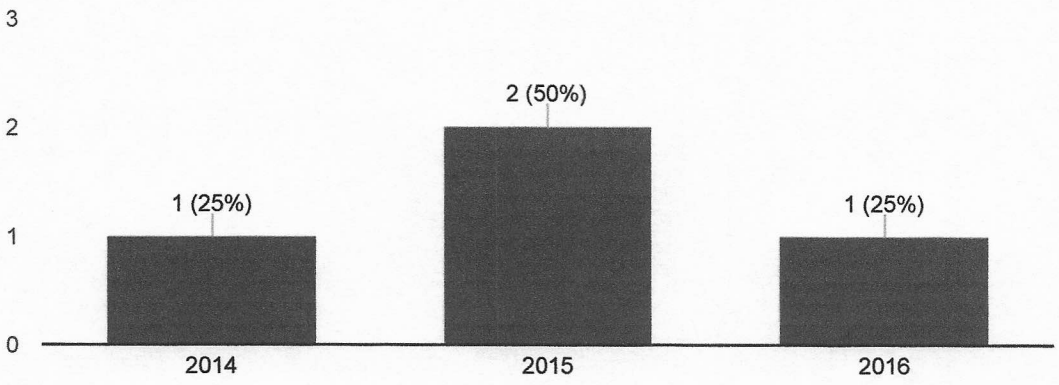
Google Forms

4 responses

[redacted]

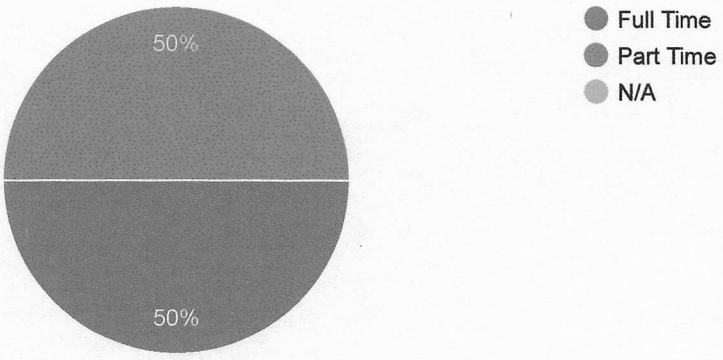
High School Graduation Year

4 responses



Employment Status

4 responses



Employer (If employed)

4 responses

Nanny for Tori and Brian Mehciz

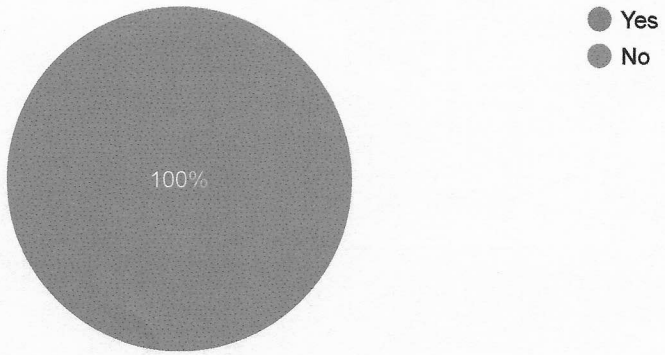
Sam's club

Quinn CAT

Wilson Ag (seasonal)

Military

4 responses



School Status (a)- Please list the school you are currently enrolled in (put N/A if not in school)

4 responses

Taft College

N/a

San Joaquin Delta College

CSU Chico

School Status (b)- Please list any other schools that you have been enrolled in since graduation

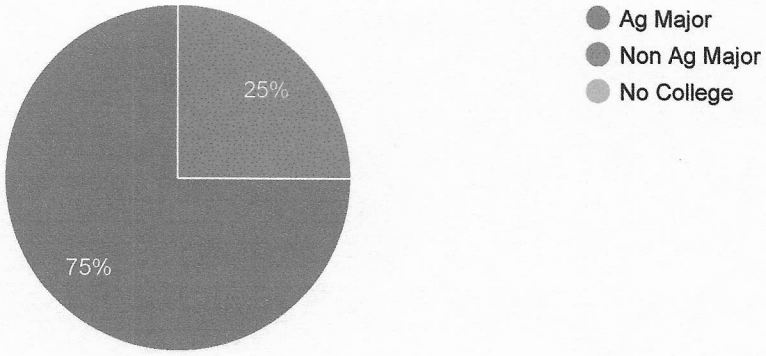
2 responses

None

Bakersfield college
Clinical Training Institute

College Major

4 responses



College Major

4 responses

Agriculture education

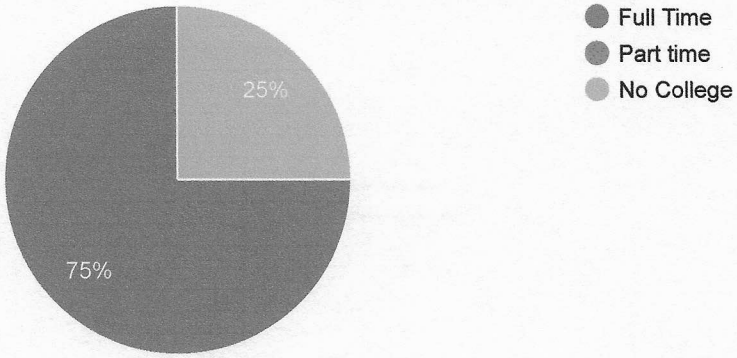
Animal science

AS degree in science

Crop Science

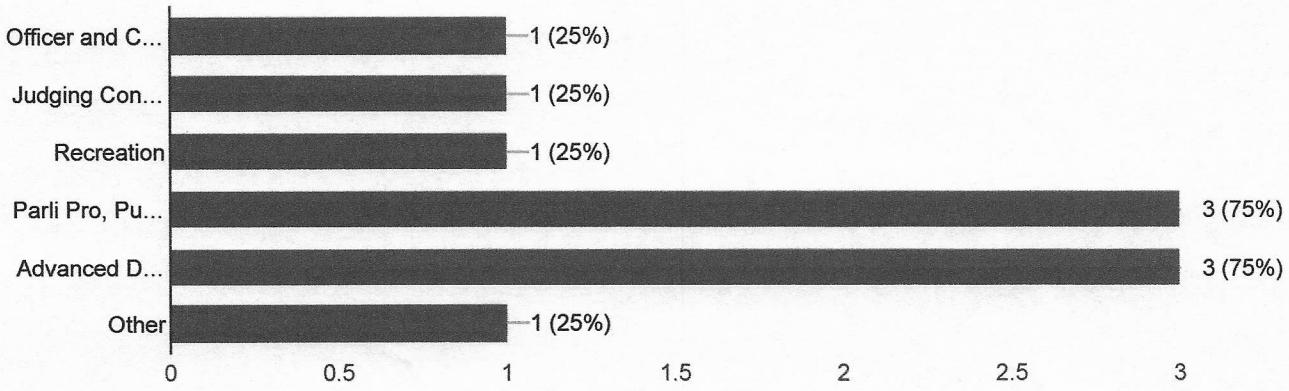
Full Time or Part Time Student

4 responses



The most valuable aspect of FFA to you is

4 responses



The least valuable aspect of FFA to you is

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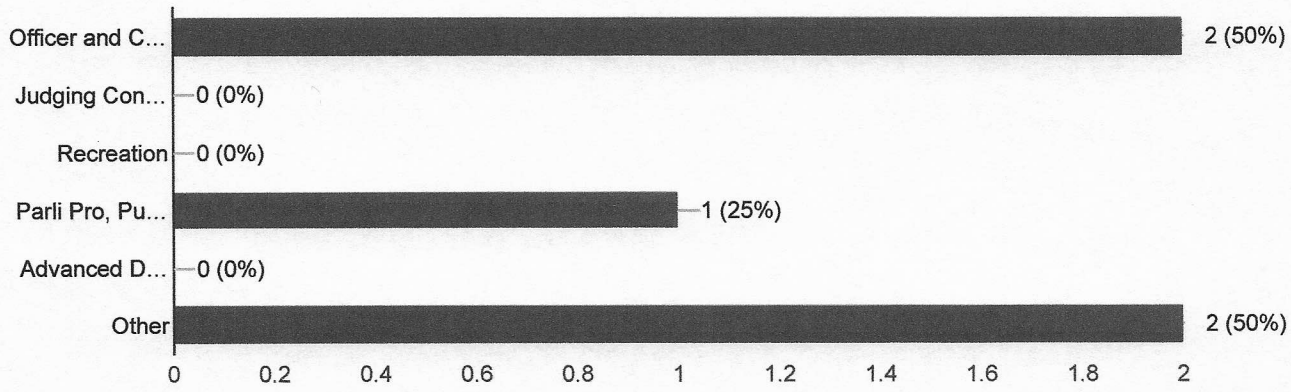
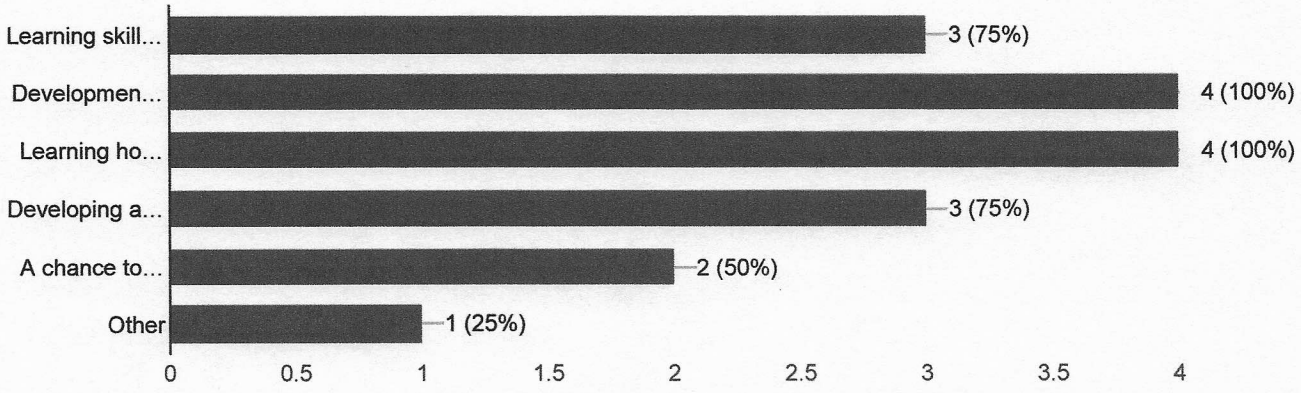


The most valuable aspect of SAE to you is

4 responses



Please add any comments about your time in FFA and how it prepared you for college and work after high school.

4 responses

I was involved in my ffa program all four years of high school and it taught me how to be responsible, outgoing, engaged, respectable, how to work with a team, how to believe in myself and so much more. I would not be the person that I am today without my ffa program and agriculture teachers. The ffa program prepared me for college and the workplace.

It helped by learning time management, being dedicated/ dependable, and financial management.

The FFA showed me the worth of hard work and dedication through praise, recognition, and income. As well as helped me discover my self worth. It showed me my strengths and weaknesses so that I could adjust accordingly and set myself up for a successful future.

It taught me to be independent and not dependent on others

Program Plan

The program plan that was in the department was outdated and lacking information. The attached one is a plan I put together while working on my master's program. It is still not the best it could be but it does outline the program well.

SHAFTER AGRICULTURE DEPARTMENT

Program Plan

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Appendix A-D

A. JOB MARKET DESCRIPTION

The California Legislature has called agriculture the "most basic and singularly important" industry in the state. Vocational education in agriculture is needed in order that the trained labor force essential to maintain, expand, and improve the producing, processing, and marketing of food and fiber necessary to the economy of the state and nation, will be continually available. The miracle of food production is possible in large parts to the workers in hundreds of agricultural occupations related to farming which contribute services to the American farmer.

Shafter High School is located in the heart of California's rich San Joaquin Valley which is considered to be the richest farming area in the world. Included in this area is Fresno which claims to be the agriculture-business capital of the world.

Shafter is in Kern County which contains the following:

Land in Farms (acres)	881,055

Included in the county are some of the biggest farming companies. Just up Highway 99 is the Wonderful company and one of their plants. Also in the area is the Grimmway Farms, Frito-Lay packing house, and Bolthouse farms.

The neighboring counties of Fresno and Tulare rank third and first in California for agricultural production. Kern County is ranked second in the state of California in agricultural production.

2015 Crop and Livestock Report for Kern County by the Kern County Agricultural Commission Office shows a gross value of agricultural products of $ 6,878,823,690. This is spread out over a variety of production areas and the totals are as follows:

Fruit & Nut Crops	$4,670,622,000
Field Crops & Rangeland	$340,618,000
Vegetable Crops	$654,165,000
Nursery Crops	$ 83,264,690
Industrial & Wood Crops	$12,838,000
Seed Crops	$11,251,000
Livestock & Poultry	$370,376,000
Livestock & Poultry Products	$652,917,000
Apiary Products	$82,772,000

The above statistics indicate the depth of agriculture production in our area and when combined with the multi-billion dollar agri-business industry, this indicates the unlimited job opportunities available.

The agriculture industry continues to be the leading job provider in the country supplying over 18% of all wage and salary employment in 2003.

Besides being Kerns' largest industry, agriculture also provides a base for a number of other Kern County industries which process, pack, market and transport the agricultural products as well as those industries which support agricultural production with machinery needed for planning, chemical fertilizing, and harvesting.

Agriculture directly and indirectly generates employment opportunities requiring a variety of different skills.

B. TARGETED OCCUPATIONS

We train our students to meet competencies in an occupation in one or more of the "Four Program Areas of Occupations in Agriculture." Listed below are various jobs which each of the program areas.

Agriculture Production	**Jobs**
Crop Production Feed Lot	Irrigator, Propagator, Farmhand, Foreman, Ranch Laborer, Hand, Field Crop Grower, General Maintenance
Animal Production Aide, Pet Control	Livestock Handler, Milker, Inseminator, Auctioneer, Vet Care, Ranch Laborer, Brand Inspector, Farm Hand, Pest
Agriculture Mechanics	**Jobs**
Mechanics Farm	Small Engine Mechanic, Equipment Operator, Parts Person, Mechanic, Shop Foreman, Repairman, General Maintenance/Mechanics
Welder Maintenance	Welder/Helper, Fabricator, Specialized Repair and
Equipment Operator Driver,	Tractor Driver, Harvest Equipment Operator, Fork Lift Mechanic Helper
Ornamental Horticulture	**Jobs**
Greenhouse Management Tissue Culture	Greenhouse Worker, Foreman Maintenance, Propagator,
Nursery & Turf Operator Course	Nursery Worker, Salesman, Plant Propagator, Gardener, Gold Maintenance
Landscape Floriculture	Grounds Worker, Gardening Business, Garden Store Sales Floral Design, Floral Sales Floral Delivery
Agribusiness/Computers	**Jobs**
Agribusiness	Ag Sales, Banking, Keyboard Operator, Farm Accounting, Ag Secretary/Bookkeeper, Inventory Maintenance

C. TOTAL PROGRAM GOALS AND OBJECTIVES

1. Install in the hearts of each member confidence in the Shafter FFA as well as in themselves at all times.

2. To develop a competitive attitude as well as a sense of fairness at all FFA activities.

3. To improve communication between Chapter Officers, Advisors, and Members as well as with the Community, Parents, and School Leaders.

4. To improve member involvement in fairs, judging teams, meetings and other FFA related activities.

5. To encourage all members to observe FFA week as a week of honor and celebration.

6. To make the public aware of our chapter's success and activities.

7. To have regular publications in both school and local newspapers.

8. To promote the great opportunities of agricultural careers and to instill an interest in members to pursue one.

9. To provide fun and organized recreational activities of interest to FFA members on a regular basis.

A. Agricultural Production

This instructional program is designed to prepare persons employment in enterprise involved in the production of plant or animal products associated with food, feed, clothing, etc. Most occupations served by this program are located on the farm or ranch.

The goals of this instructional program are:

1. To supply students with the knowledge and skills required for entry into and successful progress in those agricultural production occupations that do not require education beyond the secondary school level.

2. To prepare students for post-secondary level vocational education in agricultural education.

3. To enable students to acquire an understanding of the economic and social impact of the agriculture production industry upon society and its relationship to agriculture in general.

4. To provide the agricultural production industry with appropriate numbers of persons adequately prepared for successful employment in those occupations that now exists and that are developing in the industry.

B. Agricultural Mechanics

This instructional program is designed to prepare persons for employment in enterprises associated with any agricultural industry but requiring primarily mechanical competencies of the worker. Agricultural mechanics maintain and repair farm equipment and machinery, fabricate parts, and perform welding tasks.

The goals of this instructional program are:

1. To supply students with the knowledge and skills required for entry and successful progress in those agricultural mechanics occupations that do not require education beyond the secondary school level.

2. To prepare students for advanced post-secondary vocational education in agricultural mechanics.

3. To enable students to acquire and understanding of the economic and social impact of the agricultural mechanics industry upon society and its relationship to agriculture in general.

4. To provide the agricultural mechanics industry with appropriate numbers of persons adequately prepared for successful employment in those occupations which presently exist and which are developing in the industry.

C. Ornamental Horticulture

This instructional program is designed to prepare persons for employment in enterprises associated with floriculture, greenhouse operation, turf production and management, and floristry. The occupations in this industry involve mostly outdoor work growing and managing plants.

The goals of this instructional program are:

1. To supply students with the knowledge and skills required for entry into and successful progress in those ornamental horticulture occupations that do not require education beyond the secondary school level.

2. To prepare students for post-secondary vocational education in agriculture.

3. To enable students to acquire an understanding of the economic and social impact of the ornamental horticulture industry on society and its relationship to agriculture in general.

4. To provide the ornamental horticulture industry with appropriate numbers of persons adequately prepared for successful employment in those occupations that presently exist and that are developing in the industry.

D. Animal Science

This instructional program is designed to prepare persons for employment in enterprises associated with small animals and large animals. The pathway includes the study of animal anatomy and physiology, nutrition, reproduction, genetics, health and welfare, animal production, technology, and the management and processing of animal products and by-products.

The goals of this instructional program are:

5. To supply students with the knowledge and skills required for entry into and successful progress in those ornamental horticulture occupations that do not require education beyond the secondary school level.

6. To prepare students for post-secondary vocational education in agriculture.

7. To enable students to acquire an understanding of the economic and social impact of the ornamental horticulture industry on society and its relationship to agriculture in general.

8. To provide the animal science industry with appropriate numbers of persons adequately prepared for successful employment in those occupations that presently exist and that are developing in the industry.

D. PROGRAM DESCRIPTION

We offer the three parts of a complete agricultural educational program at Shafter High School: Classroom Instruction, Hands On Training, and Leadership Development. Our staff is committed to focusing their teaching procedures in these three areas.

Our Classroom Instruction involves teaching the basic concepts of the units taught within each of our courses offered. Students are required to use their reading, writing, and thinking skills. Assignments, Tests, and Quizzes are given and graded regularly.

Our Hands On Training supplements the education that takes place in the classroom. Students are taught the various procedures and techniques used in Animals, Plants, Mechanics, and Ag Business. They put these methods to use in "real life" situations both in and out of the classroom setting.

Our Leadership Development is taught through the FFA. We teach an FFA Unit in all ag classes so students can build on their own leadership skills whether they are new to the program or continuing on. We focus on leadership, responsibility, and cooperation. Students put these traits to use through the various activities they participate in during their involvement in our program.

E. PROGRAM COURSE/SUBJECT MATTER CONTENT

Please see the appendix for all course outlines

F. PROGRAM COMPLETION STANDARDS

A student in the agriculture program is considered a Program Completer after at least three years in the agriculture program and earning their State Degree. The student who receives their state degree their junior year is eligible for the title of program completer their senior year. The students must complete and be enrolled in one of the pathways offered in our department. The pathways all start with the Ag Earth Science class as freshman. They may also take Beginning Ag Mechanics their freshman year if they choose the Ag Mechanics pathway. Most students will also take the Ag Biology class their sophomore year. From there, they will choose their pathway. They can choose Ag mechanics, Floral/Horticulture, or Veterinary Sciences. They must also maintain a SAE project all four years as well as attend at least four FFA activities each semester. Those who are program completers receive a FFA sash to wear at their graduation ceremony.

G. DESCRIPTION OF FACILITIES AND EQUIPMENT

The Shafter Agriculture Department consists of one wing on our campus. The 1400 wing consists of three classrooms, a teacher office, and store rooms. One of the rooms has its own store room connected where the teacher can store all supplies for their class. The second room is a normal classroom. The third classroom is connected to the student computer lab and teacher office. The computer lab has twenty computers for students and also doubles as a workroom for the officer team. The teacher office currently has three teacher desks, a copier and a storeroom. In the same wing, the mechanics shop is connected. The shop just went under renovation and updated under the D1 Grant.

Also included in our facilities is an onsite school farm. The total farm consists of twenty nine acres. Twenty one of those acres is designated to growing crops. Three acres is dedicated to pasture or grazing land for the breeding sheep at our farm. The remaining five acres include pens, a shop, one portable classroom, a livestock pavilion. The pens are designed for sheep, beef and swine student projects. Poultry projects are kept in the cold box area in the livestock pavilion. This allows or us to control the temperature better.

These areas allow the program to get full hands on experiences. We are able to use the facilities to the best for our students. Eventually, we will have a greenhouse on the farm which will allow us to grow our horticulture program. At the moment, there are many growing areas with plants and flowers around the farm. Once the greenhouse is put in the students will have more opportunities to obtain hands on experiences.

Agriculture Department Major Equipment

Ford F350 Dually
Ford F350
Goose Neck Trailer
Pull Trailer
Forklift
Gator Utility Vehicle

H. FIVE YEAR FACILITY AND EQUIPMENT ACQUSITION

2015

- Digital Camera- $200
- 5 Breeding Ewes- $3,000
- Paint Kit- $500
- Floral Cooler- $10,000
- Forklift- $20,000

2016

- Science Supplies- $5,000
- Truck- $30,000
- Shop Supplies- part of D1 $1 million grant
- Sound System-$ 500

2017

- Textbooks (Vet Science, Biotechnology, Ag Mechanics) - $10,000
- Vet Science Supplies- $1,000

2018

- Copier- $25,000

2019

- Greenhouse- $20,000
- FFA Jackets, Ties & Scarves- $500
- Fair Supplies- $ 2,000

I. STAFF ASSIGNMENTS

ACTIVITY / RESPONSIBILITY	BLEDSOE	MORALES	NICHOLS	RENNICK
Board Meetings	X	X	X	X
Department Chairman		X		
District Advisory Committee		X		
SOEP Supervisor	Poultry, Pumpkins, Floral	Swine	Sheep, Rabbits	Beef, Dairy, Goats
School Farm Management	X	X	X	X
Vehicle Maintenance	X	X	X	X
Safety Program Coordinator		X		
Livestock Pens	X	X	X	X
State FFA Degree Applications			X	X
American FFA Degree Applications		X		
R-2 Reports	X	X	X	X
Ag Proficiency Applications	X			
Summer Reports		X		
Survey Ex-Ag Students		X		
Special Assignments				
Department Calendar			X	
Department Handbook	X			
Greenhand Initiation				
Chapter FFA Degree				
Judging Trips and Contests				
Fresno State	X	X	X	X
Cal Poly, SLO	X	X	X	X
Reedley College	X	X	X	X
South Valley Section	X	X	X	X
Modesto Junior College	X	X	X	X
Kern County Fair	X	X	X	X
Chico	X	X	X	X
Pomona	X	X	X	X
California Farm Equipment Show	X	X	X	X
Building / Equipment Areas				
Ag Office	X	X	X	X

Ag Shop Area		X		
Ag Science Room	X		X	X
Project Pens	X	X	X	X
Crop Areas	X	X		
Ag Compound	X	X	X	X
Ag Computer Lab	X	X	X	X
Storerooms	X	X	X	X
Budgets				
High School Farm		X		
FFA General Account		X		
District Incentive Grant		X		
Judging Teams				
Cotton				
Vine Pruning				
Floral	X			
Vegetable Crops	X			
Public Speaking				
Prepared			X	
Creed			X	
Impromptu				X
Job Interview		X		
Extemp.	X			
Parli-Pro.			X	
Cooperatives	X			
BIG				
Horse Judging				X
Science Fair				X
Banking and Finance	X			
Ag Pest Control		X		
Vet Science			X	
Opening Closing	X		X	X
Novice Records				X
Department Reports				
FFA Membership	X	X	X	X
Student Directory	X	X	X	X
FFA Program of Work	X	X	X	X

Ag Department Advisory		X		
Parent Boosters	X			X
Total Department SOE Program	X	X	X	X
FFA Advisor	X		X	X

J. PROGRAM OF ACTIVITIES

Please see appendix for Program of Activities

K. SCHOOL/DEPARTMENT POLICIES

FFA is accepted as an integral part of the agricultural program by the Shafter High School Board of Trustees. FFA is taught in conjunction with classroom information and supervised occupational experience programs.

Students enrolled in agriculture course work receive credit toward their grade for involvement in the FFA program. Many varied activities, meetings, leadership conferences and contests are available for student involvement. The FFA portion of the agriculture program helps to extend and reinforce the instructional program, give students practice in self-government, building morale and spirit for themselves, the school and community, honoring outstanding achievements and provide social and recreational activities for students to participate in.

To participate in off campus FFA activities students must maintain a minimum of a 2.0 grade point average. This is a board policy for all extra/cocurricular activities, and is endorsed by the agriculture department. Students need to realize participation in trips sponsored by the FA chapter is a honor, and will earn the "right" to represent the chapter and school. A 2.0 GPA is not unreasonable to expect students to maintain, and helps to ensure the integrity of the program.

Guidelines:

1. All participation is under the consent of an Agriculture Instructor.

2. Be proud of the farm. It is a privilege to raise an animal at the farm. When finished using the tools, equipment, be certain to return them to their appropriate location. Keep the farm area neat and organized to ensure safety for all.

3. Attend all classes and be on time knowing tardy excuses will not be given to students due to feeding/cleaning of animals.

4. Must feed animal(s) when the student signs up on the feeding schedule. If unable to feed find another student to feed, students must make their own arrangements. Only sign up on the feeding schedule when you can feed.

5. Each student is responsible for cleaning their own area where animal/project is located.

6. Protect school property and personal property of others. If you have been identified as obtaining material, equipment or feed from others without permission, you will be subject to removal from the program.

Shafter FFA offers a variety of experiences that the students can get involved with. Besides all the different judging teams such as, Vegetable, Floriculture, and Pest; Shafter also offers teams

such as Parliamentary Procedure, Public Speaking, and Creed Speaking. All these activities go under the same policy as stated earlier. Other activities such as Conferences, apply to the previous policy stated. If the student will be missing school, then the student must have a passing grade, as stated before. All these activities are leadership and responsibilities that are needed in the future.

All activities the students are involved with get classroom credit. When entering the Agriculture Science classes the students are aware of the percentage of their grade that deals with being involved with extra-curricular activities dealing with FFA. All meetings and projects are part of the students' grade.

L. PROFICIENCY STANDARDS FOR PROGRAM COMPLETERS

AG SCIENCE COMPETENCIES

I. California Agriculture

A. Economic importance of the agricultural sector in California

1. Identify the major agricultural production areas of California and commodities produced in each.

2. List the approximate dollar value of the five leading agricultural commodities produced in Orange County.

3. List the approximate dollar value of the five leading agricultural commodities produced in California.

4. Describe and discuss the economic impact of the California agricultural sector on the state and national economy.

B. Agricultural and Society

1. Identify problems faced by California farmers caused by population shifts and social and technological trends.

2. Identify government agencies which influence and affect agricultural production in California.

C. Agricultural Production on the Environment

1. Define the economic effects of air pollution on agricultural production in California.

2. List major environmental effects of production agriculture in California.

II. Animal Science

A. Importance of Domestic Animals

1. Describe the importance of animal domestication.

2. Identify within each domestic species four livestock enterprises that are part of production agriculture in the United States.

3. Identify the major sources of animal protein in the world.

4. De aware of the public health issues related to growth hormones and their use in meat production.

B. Basic Understanding of Animal Behavior

1. Visually identify the external anatomical parts of a pig, cow, horse, chicken, goat, and sheep.

2. Describe the basic differences between animal and plant cells and identify examples of each.

C. Basic Understanding of the Structure, Function and Maintenance of the Major Body System

1. Describe the basic physiological function of the primary components of the digestive systems.

2. Visually identify examples of each and describe the basic differences between the three types of digestive systems found in farm animals.

3. Describe the shape and function of different animal anatomical structures and compare them to similar human structures.

4. Identify with reduction in both male and female animals.

D. Animal Nutrition

1. Describe the six classes of nutrients and identify examples of feeds containing each.

2. Identify common feed additives.

3. Define symbiosis and describe how microorganisms (protozoa/bacteria) contribute to the breakdown of complex carbohydrates in ruminants.

4. List contributions of microbial digestion (in ruminants) to the host including synthesis of amino acids and B-vitamins.

E. Animal Health

1. List predisposing conditions that cause animal health problems.

2. Identify samples of parasites, describe how they may harm the host and prescribe methods of control for each.

3. Demonstrate a method of control for an internal and external parasite.

4. Identify ways that infectious agents may gain entrance and do harm to an animal.

5. Properly determine the body temperature of an animal.

6. Identify unhealthy animals by using both visual and non-visual indicators of health.

M. TEACHER CREDENTIALS

Please see the appendix for teacher's credentials.

N. CURRENT YEAR BUDGET

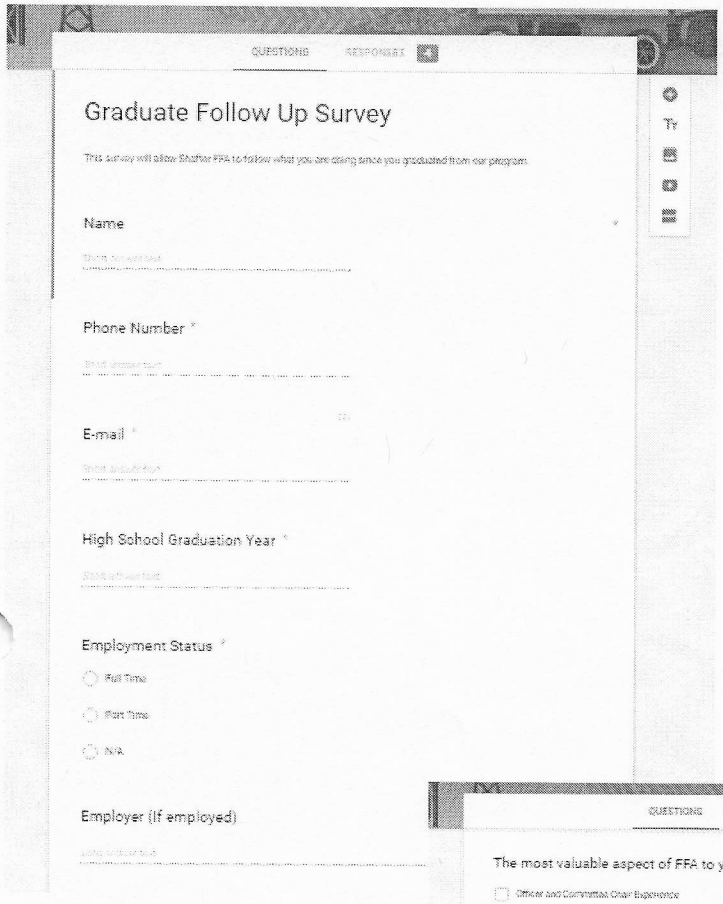
Please see the appendix for the department budget.

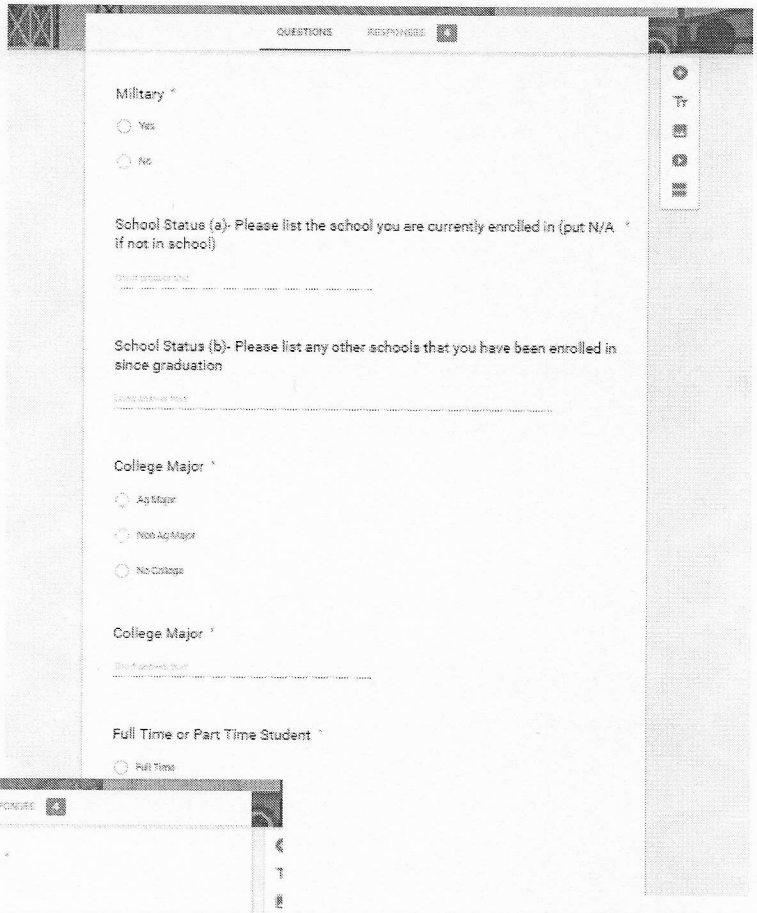
O. ARTICULATION AGREEMENTS

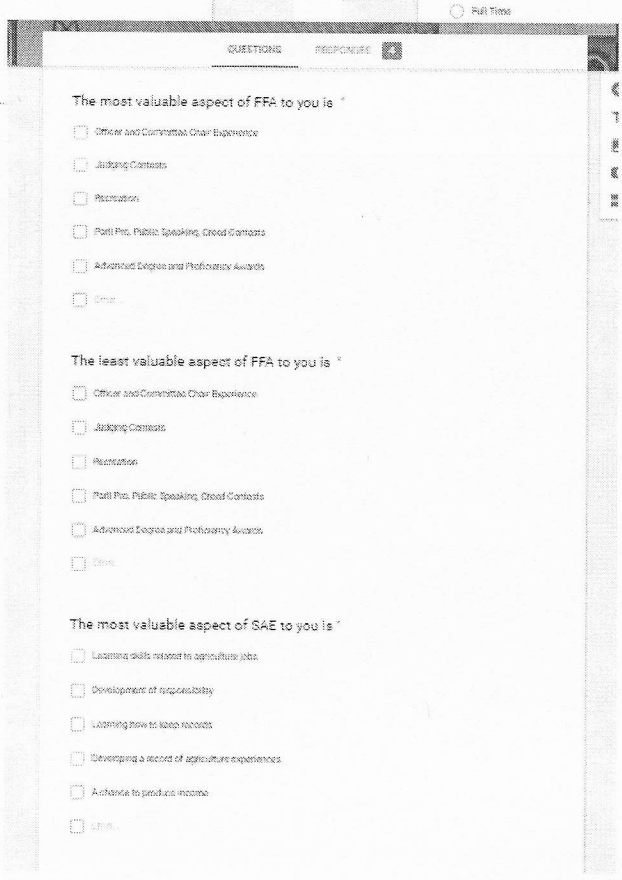
The Kern High School District has an agreement with our local community college, Bakersfield College, for dual enrollment. There are certain classes on each school site that offer student's dual enrollment. The students have the choice to dual enroll but many will take the opportunity. The students then are also registered through the community college and will receive credit at the high school and college level. This program is in its first full year. There are still many kinks and problems that need to be sorted out. Although, this program has been very beneficial to our students.

P. GRADUATE FOLLOW-UP

Shafter FFA uses Google Forms to collect information on our graduates. We send them the link via email and ask them to complete the form. This allows us to collect data very quickly and can be sent to multiple students at a time. Below are pictures of the survey.







Q. RECRUITMENT ACTIVITIES

Each year in the spring, Shafter High School holds a Freshman Orientation and Registration. Orientation is designed to allow incoming freshman to see the club and extra-curricular activities they will be able to join in high school. We always have a booth at this night. We will talk to students and parents about what they must do if the student would like to join the agriculture program. We also have a booth at the registration night to make sure any students that did not make it to orientation know of the opportunity to join agriculture classes. Please see the appendix for the tools we use in recruitment.

R. STAFF INSERVICE RECORD

INCENTIVE GRANT IN-SERVICE ACTIVITIES DOCUMENTATION

CRITERIA 4.B **School Year** 2016-17 **School** **Shafter**

Based on the previous year's record, every agriculture teacher, teaching at least ½ time agriculture, attends a minimum of four of the following professional development activities:

Qualified and Competent Personnel

ACTIVITIES	TEACHERS NAMES							
	Morales	Renick	Nichols	Bledsoe				
Fall Region Meeting	X	X	X	X				
Region In-service Day	X	X	X	X				
Spring Region Meeting	X	X	X	X				
Section In-service*	X	X	X	X	COLC			
Section In-service*	X	X	X	X	Records			
Section In-service*			X		Social			
Section In-service*	X	X	X	X	Planning			
Summer Conference	X	X	X	X				
University AgEd Skills Week			X					
Professional Development **								

S. STAFF MINUTES

AGRICULTURE DEPARTMENT WEEKLY MEETING AGENDA

Date:

In Attendance:

Activities for the Week:
Monday:
Tuesday:
Wednesday:
Thursday:
Friday:
Saturday:
Sunday:

Important Dates During the Month:
Vehicle Needs for the Coming Week:
Project Visitations Made (prior week):
Informational Items for Departmental Consideration:

Shafter High Ag. Department Meeting

Meeting Minutes
November 1 2016

Opening

The regular meeting of the Shafter High Ag. Department Meeting was called to order at 12:20 PM on November 1, 2016 at Shafter High Ag Office by Mark Morales.

Present

Elizabeth Bledsoe, Mark Morales, Ellen Renick, Teddi Nichols

New Business

Club Meeting Tonight

- Missing a lot of officers for the Nov.1 club meeting.
- Ellen is going to grab supplies after school for two of the games.
- Mark is unable to attend due to personal business.
- Elizabeth will probably leave early due to Valley Fever.

Incentive Grant

- Mark needs to finish the Expenditure report, AIG Checklist, five-year acquisition plan and advisory minutes to submit to Charles Parker.
- Staff responsibility and POA also need to be sent.

Road Show

- Need to turn Request to be Absent Forms
- Double checked all hotels are booked.
- Parker was emailed the department 3-1 registration

- Ralph should have paid for our 3-1 registration.

MFE/ALA

- Elizabeth registered 12 students for MFE & ALA
- We must attend the Sunday/Monday Conference based on availability
- Elizabeth will complete paperwork to have it paid for out of our Farm account.
- Students will pay $100 to finance. JD Hill will pay upon receiving his fair check.

Opening and Closing

- Elizabeth RSVP to Independence and has started the paperwork to pay for students out of the farm account.
- Registered for four advisors and the full 10 teams.
- Elizabeth Checked with Pam about the bus arriving on time.
- Elizabeth checked with Drama to use the auditorium for practice. Waiting to hear back from Bustamante if we have any conflicts with the auditorium. Mark likes the idea of using the auditorium due to the mirrors in the back. Ellen and Elizabeth like the idea based on space number of students and maybe then possibly rotate students from stage to outside to back of the auditorium.

Jackets

- Mark authorized the purchase of 2 sets of jackets to add to and replace some of our old jackets.
- Purchasing enough ties and scarves to have sets of 20.
- Elizabeth will turn in paperwork for purchase order.
- Elizabeth is considering borrowing an embroidery machine to add a number to scarves and ties.
- Ellen will create a google form for students to fill out when borrowing jacket, scarf, tie, shoes, shirts, skirts, pants.

Dissection Kits

- Ellen is requesting to purchase $600 worth of Fetal pigs and sheep heads to dissect in Biology class. Purchase approved and she will now fill out the PO Paperwork using the Incentive Grant account.

Agenda for Next Meeting

- Opening and Closing
- Road Show
- State Conference Housing
- BIG/CoOps/Novice Records 11/29/19
- Skate Night
- Banking Contest
- Speech Contests
- State Degrees
- Proficiencies
- Poinsettia Sales
- Record Books for Fair Students.

Additional Department Meeting

We need to meet as a department after school, Friday Nov. 4 Go over department expectations and duties.

Adjournment

Meeting was adjourned at 12:50 PM by Mark Morales. The next department meeting will be our same Tuesday Lunch meeting on November 8th in Ag Department Office.

Minutes submitted by: Elizabeth Bledsoe

T. DEPARTMENT INVENTORY

School Site:_____ Year:_____

EQUIPMENT INVENTORY

PURCHASE ORDER NUMBER	QUANITY	DESCRIPTION	LOCAL ID NUMBER	DATE PURCHASED	COST	STORAGE SITE	DATE DISPOSED OF

Appendix A
Program Course Content

Agriculture Soil Science

A. COURSE INFORMATION

Grade Level:	9th Grade
Length of Course:	2 semesters
Maximum Credit:	10
Type: Physical Science Area "D"	
Recommendation for Enrollment:	Recommended for Freshman level students, but can be applied to all levels.
Prerequisites:	
Co-Requisites:	

B. COURSE DESCRIPTION *(Include a brief explanation of the course; mention any prerequisites, including standardized test scores; and indicate whether the course satisfies a specific graduation requirement.)*

Three-fourths of the world's food and nearly all of its fiber come from the fragile, thin skin of the land's surface–the soil. This course explores the physical and chemical nature of soil as well as the relationships between soil, plants, animals and agricultural practices. Students will examine properties of soil and land and their connections to plant and animal production. Using knowledge of scientific protocols as well as course content, students will develop an Agriscience research project to be conducted throughout the first semester of the course. To complete that whole project each student will investigate and test an Agriscience research question by formulating a scientific question related to the course content, formulating a hypothesis based on related research, conducting an experiment to test the hypothesis, collecting quantitative data, and forming a conclusion based on analysis of the data. The result of this research program will be an in depth research and experimentation paper that is technically written, based on scientific protocol, and cited using APA formatting. Additionally, students will develop and present a capstone soil management plan for agricultural producers, using the content learned throughout the course. Throughout the course, students will be graded on participation in intracurricular FFA activities as well as the development and maintenance of an ongoing Supervised Agricultural Experience (SAE) program.

C. INSTRUCTIONAL MATERIALS *(List the basic text – include title, edition, author, and copyright – and other essential supplementary materials or instructional resources/materials used in the course.)*

Miller and Levine, EARTH SCIENCE, Prentice Hall, copyright (2007)

Plaster, Edward. Soil Science and Management. 6th ed. Clifton Park: Delmar, 2014. Print

Supplemental Materials

Agriscience Fundamentals and Applications 6th Edition; L. DeVere Burton, Cengage Learning
Bottoms, Mandi, and Shaney Emerson, eds. "Chemistry, Fertilizer, and the Environment." *California* Foundation *for Agriculture in the Classroom*. N.p., Dec. 2015. Web. 18 Apr. 2016. <http://learnaboutag.org/resources/lesson/chemistry.pdf>.
How to Write a Scientific Paper by Robert A. Day
National FFA Agriscience Fair Handbook
https://www.ffa.org/documents/agsci_handbook.pdf
National FFA Research Report Template
https://www.ffa.org/programs/awards/agrisciencefair/Pages/default.aspx
"STEM Connections, Energy and Agriculture." *California Foundation for Agriculture in the Classroom*. N.p., n.d. Web. 18 Apr. 2016. http://learnaboutag.org/resources/lesson/stem.pdf>.
Thompson, James A., and Mark S. Coyne. Math for Soil Scientists. Clifton Park: Delmar, 2006. Print.

D. ***COURSE OUTLINE*** ***(List the major content areas of the course an divide them according to the semester in which they fall. Designate the approximate amount of time given to each of the content areas. Suggested length: one page.)***

Introduction:
Career Technical Agriculture Education
The students will be introduced to what it means to be involved in an Agriculture class and FFA. Students will gain an understanding of the three components to Agriculture Education: academics, FFA, and supervised agriculture experiences (SAE's). This will include, but is not limited to, understanding the history of the FFA, FFA traditions and leadership roles, record keeping, and project management. Throughout the year students will explore leadership opportunities within FFA and career opportunities within Agriculture.

Unit One:
Agriscience Practices

Unit Description
This introductory unit will focus on proper methods of agriscience inquiry. Through a series of minilab experiences based on the course content, students will learn to ask questions and define problems, conduct research to form a hypothesis, determine the experimental design and conduct experimentation, analyze and interpret data, develop conclusions and then communicate their findings in lab reports. Not only will the students learn to utilize proper scientific method protocol through conducting these minilabs, they will also learn what topics will be taught throughout the year in order to guide them in selecting the problem/question for their individual Agriscience Project. Through these minilab experiences and unit content, students will be provided with the skills and knowledge to successfully establish the idea they will pursue in their Agriscience Project. By the end of this unit, students will complete the Agriscience Project Research Proposal for their ongoing science experiment that will be conducted throughout the first semester of the course.

Key Assignment

1. Soil Structure and Composition Mini-Lab Calgon Testing
Students will learn that soil is composed of different size particles at varying percentages by conducting an experiment where students separate, examine and identify the major components of soil to better understand how these components give soil its unique physical characteristics. Students will learn to measure the percentage of sand, silt, and clay in a soil sample. Soil samples should be collected in the course of a walking field trip where students will take samples from varying locations on the walk. Students will mix one cup of soil sample with laundry detergent powder in a mason jar in order to dissolve the soil aggregates and keep the individual particles separated. Once the soil sample mixture sits for three days, students will measure and determine the percentage of each particle within their specific soil sample. Students will write a lab report to summarize what occurred throughout the experiment, their data, and analysis/conclusion.

2.Water and Soil Management Mini-Lab Water Percolation
Students will learn how to design a scientific experiment through proper scientific method and how to develop a research proposal. Students will be put into groups to produce a mini proposal which will include the specific water percolation problem/question they will research for this lab, three literary research references, a hypothesis and scientific procedure. Students will also learn how soil composition impacts the speed of water percolation or amount of water absorption by conducting the experiment they designed. Students will create a lab report that includes their data and analysis/conclusion. The lab not only develops students ability to write a proposal and a scientific experiment, but exposes them to the relationship between water and soil management.

3. Plant and Soil Management Mini-Lab Nutrient Uptake
Students will learn that plants utilize nutrients in soil to grow and develop. Each student will bring in a soil sample from their yard to utilize in this lab. They will divide the sample into two pots, one that will be a control sample and the other will be amended with animal manure compost. They will test the nutrients of these two pots of soil with a standard soil testing kit in order to record the levels of Nitrogen, Phosphorus, and Potassium in their control and amended samples. A bean seed will be planted in each pot of soil to germinate and grow over the course of a two week period. Throughout the two weeks, students will be recording quantitative data on seed germination, plant growth, and soil nutrients. After analyzing their data, students will determine how much of each nutrient was utilized by the bean plant. A lab report will be written to summarize what occurred throughout the experiment, their data, and analysis/conclusion.

4. Animal and Soil Management Mini-Lab Animal Manure Amendment
To build on to the learning of nutrient uptake in the previous lab, students will extend their data analysis to make conclusions on why the bean plant in the amended soil sample had more optimal growth over the past two weeks than the bean plant in the controlled soil sample. This extended analysis of their data will allow the students to learn that animal waste can be composted and used as a soil amendment to increase soil nutrients for optimal plant growth. A lab report will be written to summarize what occurred throughout the experiment, their data, and analysis/conclusion.

5. Technology Mini-Lab Soil Moisture Testing
Building on the learning of soil composition in the Calgon lab, in this minilab, students will learn that the moisture levels in soil vary depending on the soil composition through the use of soil moisture sensing equipment. Students will learn how to operate a soil moisture sensor by testing the moisture levels in various soils. Students will return to the locations where soil samples were collected for the Calgon testing lab in order to test the moisture levels of those specific soils. They will use their data from the Calgon testing lab alongside the data from the soil moisture tests to determine how the composition of the soil impacts the soil moisture levels. A lab report will be written to summarize what occurred throughout the experiment, their data, and analysis/conclusion.

6. Chemistry, Fertilizer, and the Environment

Modern farmers face real life challenges while producing our food, fiber, and fuel. Supplying one nutrient while ignoring other plant needs, including other nutrients and environmental factors such as temperature, water, and light, may have little benefit or even be detrimental to the crop. In this lesson, students will learn about solutes and solvents and will use serial dilution while investigating parts per million—a term used to describe the nutrient concentration of a fertilizer solution. Students will use their knowledge of solutes, solvents, and parts per million to analyze fertilizer options that meet plant nutrient requirements while evaluating costs associated with managing plant nutrients. Most importantly, students will look at the role of nitrogen and show how various forms of nitrogen cycle through the environment. Students will look at how the different forms of nitrogen undergo various chemical and physical transformations that are all critical to the global nitrogen cycle. Students will measure the pH of a soil sample and learn how pH affects the availability of nutrient uptake by plants. Students will determine if and how their soil pH should be modified through the application of soil amendments. In this lesson, students will test for plant-available soil nitrogen and learn how farmers use this test to precisely match fertilizer application to meet crop needs and reduce the amount of nitrogen left in the soil in order to minimize nutrient loss and environmental impact.

7. Agriscience Research Project Proposal

The key assignment for this introductory unit will be writing a research proposal for the student's planned Agriscience Project. To guide the students in deciding their agriscience research questions/problem, the mini lab experiences completed in this nit should be utilized. The written proposal will include their chosen problem/question that they will be researching and investigating, five pieces of literary references, and the steps to complete for their research project. This assignment marks the first in a series of assignments that will be necessary for students to complete in order to successfully complete their agriscience research project.

Unit Two: The Nature of Soil

Unit Description

Students will use the methods of scientific inquiry, developed in the previous unit, to investigate the composition of the physical world, and discover how matter and energy change forms through biogeochemical cycles. This unit will focus on geomorphology as it relates to soil formation and management practices. Students will understand where soil originates by investigating the role of the rock cycle in soil formation, sea floor spreading, volcanic activity, and mountain building. Students will learn how the electron configurations of different elements, present in the parent material, give them unique physical and chemical properties, and will further investigate how these properties impact soil characteristics. Students will identify how the climate, weather, natural resources and hazards, and environment impact the soil properties, and will examine the role erosion plays in soil science as influenced by human activity. Students will collect soil samples from a variety of sources, and will use industry methods to determine the chemical composition of the soil and how this composition affects its physical and chemical characteristics. Students will connect to prior knowledge of life science by looking at how biotic factors impact soil type, composition and texture through investigation and experimentation. Students will use the results of their soil testing and the locations from which they took their samples to create a soil map of their local area. Students will compare their map to existing soil maps and analyses, and analyze the similarities and differences with the previous research

Key Assignments

1. Classifying Rocks and Rock Formation

The students will explore the internal and external processes that form igneous, sedimentary, and metamorphic rocks. The students will identify how natural resources and hazards such as earthquakes, volcanism, erosion, and weathering drive the rock cycle. Students will learn about seafloor spreading and mountain building in plate tectonics as it relates to the formation of new parent material for soil and rock formation. Using charts, magnifying lenses, streak plates, hardness tests, and various rock and mineral samples the students will be able to identify rocks and minerals by their physical characteristics. Students will turn in a lab report identifying the provided rock and mineral samples. The report will

include a description of how the rocks formed, parent material type, effect of climate and erosion on rock formations and how this influences human activity and soil management concerns.

2. Sedimentary Rock Lab
In this activity students will model how sedimentary rock is formed by simulating weathering and erosion. Because sedimentary rock is the parent material for major components of many high quality soils, students will investigate the physical and chemical processes which create sedimentary rock. In this lab, students will use brown sugar to simulate the effect of water on soluble rock, show how water can dissolve various minerals, show how freezing water can crack porous rock, show the effects of water's impact by pouring water on sand, and use a hairdryer and sand to simulate wind erosion on copper sulfate crystals. Students will turn in a lab report that details the results of the lab and that identifies which processes are examples of physical change (water expanding in cracks to break rocks, sand particles wearing away rock, etc.), and which processes are examples of chemical change (slightly acidic water dissolving limestone, oxidation of minerals to create metal oxides, etc.). (http://www.rsc.org/education/teachers/resources/jesei/weather/home.htm)

3. Collect and Test Soil Samples: Physical & Biological Properties (figure out what elements might be in them based on chemical properties)
In this lab, students will learn how to test the physical characteristics of soil, so that they can learn how these characteristics affect a soil's capabilities in later units. They will be able to assess and amend a soil to achieve a specific agricultural application. Students will collect soil samples from a variety of locations around their community. After receiving instruction in lab safety protocols, students will choose appropriate lab testing and safety equipment, and will carry out a battery of industry standard tests to determine what physical and biological characteristics the soil samples possess. After receiving instruction in what physical properties of matter are measured in soil testing, students will use the ribbon test, and also look at physical factors such as soil texture, composition, and particle size. Students will examine the soil for presence of living organisms, such as nematodes. Based on these properties, students will hypothesize what chemical elements are present in the soil. Students will research what chemicals are prominent in the soil in their test areas, and check their hypotheses against this research. Students will turn in an annotated bibliography detailing the major findings of their research. Students will give a presentation on their annotated bibliography, and give details on where their soil came from, the lab tests they performed, the results of the tests, their data analysis, and how that analysis compared to their research.

4. Background Scholarly Research and Forming a Hypothesis
As they begin work on their semester long research project, students use skills in research and forming hypotheses developed in the previous units to develop a hypothesis for their agriscience research project. Students will use credible sources to conduct background research on the agricultural issue they are investigating by reading and deconstructing scholarly journal articles to identify the key components of their agriscience research project. They will use this research to generate a testable hypothesis related to the scientific problem they have identified. The hypothesis developed by the student will be constructed with the independent and dependent variables in mind, and ultimately reviewed by the instructor.

5. Test Soil Samples: Chemical Properties
In this lab, students will learn how to test the chemical characteristics of soil, so that as they learn how these characteristics affect a soil's capabilities in later units, they will be able to assess and amend soil to achieve a specific agricultural application. Students will test the soil samples that they collected for the previous lab to determine the chemical properties of the samples. After receiving instruction in lab safety protocols, students will choose appropriate lab testing and safety equipment. After learning what chemical characteristics of soil are commonly tested, what reactions occur in the testing process, and how these tests are performed, students will carry out a battery of industry standard tests to determine chemical characteristics, such as pH, nitrogen levels, potassium levels, phosphorous levels and presence of micronutrients. Students will use their chemical tests to compare what chemical elements they found in the soil with what they hypothesized based on physical characteristics, and what they found in their research. Students will turn in a lab report which details where their soil came from, the

lab tests they performed, the results of their tests, and the analysis of their results as compared to their findings in the previous assignment.

6. Experimental Design and Conducting Experimentation
Students continue work on their semester long agriscience project by constructing an experimental design to test the hypothesis they developed in earlier in this unit. A written experimental design should be constructed consistent with scientific protocols using the systematic approach outlined in the previous units. Students will have their experimental designs reviewed by professional contacts (industry experts, agricultural instructors, local growers/producers, researchers or university representatives). After validating the design using the peer review process, students will move to the experimentation phase of their research. Experimental designs should include replicates, control groups, and determine the variables to be controlled and how. Additionally, a determination should be made as to the type of data that will be collected and in what ways, with the emphasis placed on quantitative data or quantifying data that is qualitative in nature. Students will use their experimental design to test their hypothesis. Raw data should be recorded using a field book or electronic device.

7. Creating Soil Maps
Students will take the soil analysis results from the previous assignments to construct a soil map of their local area. Based on the physical properties, such as soil texture, composition and particle size, the chemical properties, such as pH, nitrogen levels, micronutrient levels, etc., and the specific location from which the soils came, students will categorize the soil samples and the class will construct a comprehensive soil map of the local area. Students will then compare their map to existing soil maps, and analyze the similarities and differences with the previous USDANRCS maps.

8. Soil Management Project
The soil management project, which students begin in unit 2, will be ongoing throughout the length of the course. Students will develop best practices for agriculture soil use. The teacher will procure samples of soil from a variety of local farms and these samples will be kept as individual soil plots, or can be kept in plastic containers. Students will perform a variety of tests on these soil samples throughout the course in order to determine the characteristics that the individual samples possess, to analyze how these characteristics impact agricultural outcomes, and how amendments can be made to the soil samples in order to achieve a desired outcome. Students will also look at the cost-benefit ratios of the different soil characteristics and amendments on desired outcome. In this unit students will use the skills they learned in the previous labs to test and record the physical and chemical characteristics of the soil, and identify organisms living in the soil. Students will keep ongoing records of the data they collect during each of the units learning labs. This data will include information about the physical and chemical characteristics of their soil sample, results from testing pH, moisture, nutrient levels, water holding capacity, ability to grow target crops, and other factors in subsequent units.

Unit Three:

Water and Soil Management Unit Description
Using knowledge accessed from previous units on the physical and chemical properties of soil, students will analyze how the water cycle impacts soil based on its soil type (sand, silt, clay) soil location (geographic and topographic), vegetative state and natural slope of land. In order to understand how water becomes available for plant growth, students will explain the movement of water through soil with respect to how intermolecular forces impact percolation, capillary action, pore size, cohesion and adhesion. Furthermore, students will address how the concentration of organic matter in soil impacts the movement of water. Students will explain the impact that soil has on the quality of their water and will use water analysis tests to determine the safe and appropriate levels for potable water. Students will also be able to provide solutions to possible contaminations and/or toxic levels of residues/nutrients in the water samples. Students will determine how different irrigation, tillage and planting practices will impact the soil and surrounding area by testing water quality, pH and checking for possible contaminants due to leaching. Students will determine proper and efficient irrigation practices based on the chemistry behind the soil and the way water moves through the soil particles. Students will use GPS

to enable students to more accurately analyze watersheds in their area and rationalize how the drought can impact both water quality and quantity as well as soil composition.

Key Assignments

1. Soil Erosion and Runoff Lab
Using soil plots from the previous labs, students will analyze how soils with vegetation (including organic matter) have a greater water holding capacity and less runoff than soils without vegetation by collecting runoff water from each plot and testing not only the amount of water collected from each plot, but also the percent of solids collected from runoff from each of those plots. Students will complete their lab write up to emphasize their understanding of these key concepts. They should discuss climate, natural hazards, and human activity that can influence the potential for soil erosion and runoff as it impacts soil nutrient availability and crop production. Students' lab reports should include qualitative and quantitative observations of the composition of runoff from the soil plots. They should analyze this data to draw conclusions about the water holding capacity of the soils and should discuss the intermolecular interactions which allow soil to hold water at the molecular level. This assignment prepares them for decisions that will be made in their capstone project of creating a soil management plan.

2. Water Quality Testing
Students will begin by examining properties of subatomic particles and will create models to illustrate bonding of hydrogen and oxygen, accounting for the polarity of the water molecule. The focus of this unit will continue to develop an understanding of how hydrogen bonds give water a number of properties that allow it to percolate through soil, adhere to pollutants and transpire through plants. https://www.lcmm.org/education/resource/onwaterecology/worksheetwaterqualitytesting.pdf

Above is the link to the lab where students will test water samples from various sources throughout their community to determine the quality of the water. They will test and record data on pH, phosphates, nitrates, dissolved oxygen, and turbidity. Students will then analyze this data to draw conclusions on what can be done to improve the quality of the water. Students should also indicate what steps can be made in agriculture to protect water quality and ensure a safe water source for the community. Students will make a presentation to the class that summarizes their lab procedure, results, and conclusions. To extend learning, the group that has the most thorough presentation can present their findings to the School Board, local Farm Bureau, or any other local organization.

3. Analyzing data, interpreting data and forming conclusions.
Students will determine the best methods for organizing the data from their semester long Agriscience Project by creating data tables. The skills in analyzing and interpreting data used during Key Assignments One and Two in this unit will be applied to the final agriscience research project. Students will make similar determinations on their Agriscience research. Students will use mathematical principles to synthesize their data, calculating a mean. Furthermore, a statistical analysis of the data will help the student determine if the results are due to chance or the independent variable that was tested. Students will choose the best way to present their data using graphs they believe will most effectively demonstrate their findings, and will further summarize what each graph shows. Finally, students will interpret the data and formulate conclusions based on the results. In the written conclusion, students will use their data to either accept or reject the original hypothesis. Conclusions should be directly supported by the data and by previous research. Students will also identify the limitations of their research, improvements that could be made to the experimental design, as well as future studies that may be conducted that relate the study at hand.

4. Tillage Practices and the Impact they have on Runoff, Erosion and Soil Chemistry
Students will explore how chemical bonding, chemical reactions and chemical equilibrium are demonstrated through the relationship between tilled soil and water runoff. Students build upon their knowledge of atomic structure to explore the various forms of chemical bonding that takes place between atoms of different elements as well as the role of valence electrons. To deepen understanding of chemical interactions, students will investigate both the physical and chemical changes that take place during tillage. Students will utilize locally sourced soil samples at both pretillage and posttillage

intervals to compare the effects of tillage on the physical and chemical nature of soil. Ideally, multiple tillage types will be examined including conventional tillage, deep ripping tillage and conservation tillage. Soil pH, effective cation exchange capacity, soil organic carbon, and soil nutrient levels will be measured in addition to an analysis of the physical structure of the soil. Examination of the physical structure can allow students to predict potential erosion and runoff issues. Students will then develop suggestions for best tilling practices by using GPS and topographic maps to determine the natural slope of a given plot of land. They will be asked to design the most efficient "tillage" for this plot to conserve water, prevent soil erosion and cause the least disturbance to soil and water bonding. Students must explain in a written report, including a detailed diagram, why they selected the design they did and how it will be the most beneficial for the environment using conservation techniques for the soil and water as learned in this unit. They will also explain why the alternative designs would be poor choices.

5. Ground Water Contamination and Aquifer Lab

Students will demonstrate how aquifers filter different contaminants by constructing a model of an aquifer and testing how groundwater contamination occurs by using common agricultural contaminants. They will analyze two different types of aquifers and determine which type they would want to place a well into and why. Students will explain how the size of the pores affects the intermolecular interactions between contaminated water and the rock, and how this in turn impacts how well an aquifer can filter out contaminants. Students will examine how the pH of different solutions is directly affected by soil type and aquifer porosity. Students will model this by capturing water that comes through their aquifer model. Students will then determine the concentration of this type of solution through a standardized titration experiment. Once they have used their models as a means of understanding how easily groundwater can be contaminated, they will complete their conclusion and create a multimedia production in the form of a TED talk or Infomercial that educates their community on what agriculturists do and can do to improve water quality in their local area. They will present their productions to a panel of judges and the winners will have their video/multimedia presentation broadcast schoolwide.

6. Irrigation Practices in Agriculture

Students will understand how evaporation (due to temperature) and soil type plays a huge role in the irrigation methods and practices employed in the agriculture industry. Students will be given 3 different soil types. Students will divide these 3 soil types into 9 different samples; 3 of each in a different setting, but they will receive the same amount of water to simulate "irrigation". Students will hypothesize what they think will happen based on soil type and temperature with regard to moisture retention and how this will impact decisions in irrigation selection. In the control group the 3 soil samples will be placed outside. In test group #1, 3 samples will be placed under a heat lamp to simulate an environment with a hotter ambient temperature. In test group #2, 3 samples will be placed in a location cooler than your outside temperature. In all 3 of the test locations students will water all of the samples with equal amounts of water. The following day students will test the moisture content of all soil samples using a Kelway Soil Acidity and Moisture Meter to determine the effects that temperature and soil type had on moisture retention. Using this data, students will then complete the lab write up and finish a conclusion by summing up how this lab impacts irrigation practices.

7. Semester One Capstone Project

Land Planning Model

Land use can be defined as how land is utilized. Examples include "Park", "Intermediate Density Residential", and "Industrial". Decisions about land use and land cover can affect how much our climate will change and what kind of vulnerabilities humans and natural systems will face as a result. Humans affect climate through changes in land use activities taking place on land, like growing food, cutting trees, or building cities and land cover, the physical characteristics of the land surface, including grain crops, trees, or concrete. In addition, climate changes can be caused by emissions of heat-trapping greenhouse gases from energy, industrial, agricultural, and other activities.

Purposes of the term project:

• To explore the selection of land for a specific purpose based on how soil properties influence different land uses.

- To challenge you to demonstrate creativity in a rigorous academic planning exercise.
- To foster your ability to communicate, delegate, lead, and share responsibility in a peer group.
- To provide an opportunity for you to develop public speaking skills through presentation of your projects in front of your class.

Your group is required to "purchase" a complete tract of land of the 20 tracts (from soil surveys) "for sale". A minimum of 6 acres must be used for agriculture either crops or livestock the rest of the land use is up to your group. You do not have to use all of the tract for your specific land use, but you must include all the entire tract in your inventory of soils, describe why you are not using some land, and how the unused portion of your tract will be managed (i.e., left in forest, pasture, etc.). The purchase and specified land use you choose must be reasonable, in economic terms (i.e., if you buy a 50-acre lot for a 30-acre farm, explain what will be done with the other 20 acres and how your business will be able to afford the extra land). Final management plans will be developed and a written report will be turned in as well as groups will give an oral presentation to the class.

Your method for choosing your site should be logical and clearly articulated in your written and oral reports. The way you choose your site should demonstrate that you based your land planning decisions on all the information available, general and specific. i.e., look at the capability class descriptions, soil series descriptions (including slope) as well as land use classifications. Students will provide a soil inventory which lists all the soil series and then organizes them into a smaller number of groups that have practical significance for your planned use of the land (e.g. you could group 10 soil series by drainage class, three poorly drained, three moderately well drained and four well drained, OR you could group them into those that have severe, moderate and slight limitations for streets and roads). The soil survey may not rate soil for exactly the use you intend. For example, a campground project might include a category of suitability for paths and trails, but probably not a category for suitability of land for homes with basements (except for construction of the office or shower rooms).

Groups will construct soil maps. One of your maps must combine at least two types of soil characteristics (e.g., suitability for habitat elements and slopes) which together present a clearer view of why certain areas may or may not be suitable for various uses that you specify. Your project should also consider texture at the depths appropriate for your land use. In the soil survey, suitability for "topsoil" pertains to the removal of the top layer for use in landscaping elsewhere. Therefore, a soil which is a good source of topsoil might have a restrictive layer beneath, making it poorly suited for farming. You are also expected to use other suitability classes, which are in the soil survey report.

In your land planning project include natural resources access such as access to fresh water, regions of fertile soils, and minerals and fossil fuels. Explain how the availability of these natural resources has influenced the purchase of your land tract and the specified land use you choose. Lastly your group should look at climate, severe weather if applicable, and surface processes such as soil erosion and how that can affect the types of crops and livestock that can be raised. Also does the land use your group chose affect the climate either positively or negatively in any way. For example, cities are warmer than the surrounding countryside because the greater extent of paved areas in cities affects how water and energy are exchanged between the land and the atmosphere. This increases the exposure of urban populations to the effects of extreme heat events.

Unit Four
Plants and Soil Management

Unit Description
Building on knowledge acquired from the previous units on the physical and chemical properties of water and soil, students will begin to determine the effects of plant, soil and water interactions with respect to maintaining or restoring environmental health and structure. Students will model how carbon, water, and nitrogen cycle through the environment, providing a foundation for plants and animals. In addition, the students will learn about nutrients necessary for plant growth and will analyze how pH affects nutrient availability by changing chemical equilibrium, determine water holding capacity with respect to water availability for plant growth, and identify possible nutrient deficiencies based on plant

observations. Students will apply this learning to developing knowledge of soil nutrients and their role in the environment by testing and analyzing soil samples for optimal soil structure, nutrient value and availability and determining possible soil amendments and practices to improve soil quality.

Key Assignments

1. Biogeochemical Cycles

The students will model how water, nitrogen, and carbon cycle through the atmosphere, biosphere, geosphere, and hydrosphere, providing conditions that are necessary for plant growth. Students should investigate an agriculture ecosystem, such as forestry, rangeland, vineyard, annual crops, orchards, etc., to determine what cycle is being affected to the greatest degree. Students must be able to explain the changes that are taking place, the extent humans have an impact on these changes, and what is being done to alleviate potential problems. Students will complete a report that details their agriculture ecosystem and includes a model of the biogeochemical cycles.

2. Plant Requirements from Soil Lab

Students will demonstrate their knowledge of plant growth requirements by creating a controlled experiment to compare the difference between natural and synthetic fertilizers on plant growth. Students will make qualitative and quantitative observations of plant growth and analyze their data in order to draw conclusions regarding the availability of nutrients and the practical application for crop growers. Fertilizers are identified with particular isotopes and as part of the assignment, students will describe nuclear processes and radiation, describing their methods of use in determining fertilizer application in commercial agriculture. Students will then create a written recommendation to a local crop producer regarding which type of fertilizer to use for their farm in order to achieve production goals, highlighting chemistry concepts as a fundamental part of the assignment. Optional extension: Students can analyze the amounts of fertilizers needed in order to reach the desired amount necessary for plant growth and determine whether the addition of fertilizers is cost effective.

3. Soil Management Project

Students will analyze their data collected from unit 2 and determine which crops can be grown based on the current physical and chemical properties of the soil. Students will make recommendations for soil amendments which would increase the nutrient availability of the soil in order to grow a desired crop. Students should consider how pH, and chemical equilibrium will impact the availability of nutrients in the soil in their recommendations. Students will then plant a crop from a given list of cover crops (clover, grasses and legumes) in their soil test plot, allow it to grow and then retest the soil to see if there is a difference in the nutrient concentrations. Students will incorporate their knowledge of biogeochemical cycles into their lab report and will provide an explanation of how nutrients are being transferred from the soil to the plants. The research and experimentation conducted in this project will be added to their Soil Management Capstone Project.

4. Plant and Soil Interactions

Students will compare their nutrient values from the previous project with other groups during a classroom discussion. Students will analyze the data and develop explanations for why there is a difference in the amount of nutrients the plants extracted from the soil. Students will then revisit the Soil Erosion and Runoff Lab from Unit 3 and measure the amount of runoff and soil erosion that occurs on each of the cover crops and compare the data to the data collected from Unit 3. Students will communicate their results in a lab write up.

Unit Five: Animals and Soil Management

Unit Description

Using knowledge from previous units about soil nutrient content, students will identify the key macrominerals and microminerals necessary for normal livestock growth and reproduction. The students will correlate the minerals present in soil with the nutrient content of typical livestock

concentrate and roughage feeds. Using local resources, the students will identify mineral deficiencies or toxicities in the soil and relate the deficiencies or toxicities to livestock health. Students will identify crop and range management practices to improve the nutrient content of soil, and will explain what reactions take place at the molecular level to improve nutrient content. Students will identify various methods of using animal waste and the environmental impacts including the use of animal waste as soil amendments and fertilizers. Students will relate the units of concentration used in agriculture practice to units used in chemistry labs, as they identify problems and contaminants associated with livestock waste disposal and related health and safety regulations.

Key Assignments

1. Nutrient Deficiencies in Livestock

Students will examine the correlation between soil and plant nutrient levels with health problems in livestock. Using their knowledge of solutions and concentration, students will identify soil nutrient deficiencies in a geographic area. They will relate the nutrient deficiencies with livestock diseases. For example, if an area has a deficiency in selenium, students will identify problems such as white muscle disease in calves and lambs. Working in groups, the students will analyze a case study on selenium deficiencies in cattle and offer a solution and/or design a system to prevent or correct a mineral deficiency in livestock caused by a soil deficiency. Their analysis will be presented in a written report. An optional extension to this assignment could include testing other nutrient deficiencies, such as copper toxicity, and reporting these findings in a group oral presentation using the case study as an example.

2. Livestock and Water Quality

Students will examine the nutrients present in animal waste and identify possible environmental contaminates in the waste. To examine the effects of water runoff from livestock facilities, students will design a controlled experiment to test water samples from soils exposed to livestock for nitrates, phosphate, heavy metals, pH, dissolved oxygen and other factors. Students will utilize their previously collected soil samples or soil plot and design a model to simulate water runoff from a livestock production facility. Alternately, students will test water runoff samples from existing livestock facilities. At the conclusion of the experiment, students will provide a written recommendation to a county land use commission with a protocol for the optimal use of the animal effluent.

3. Livestock Waste Management

Students will examine the challenges involved with livestock waste management. The problems may include ammonia emissions, phosphorus runoff, nitrate leaching and heavy metal runoff. The instructor will provide a problem and scenario that relates to livestock waste management from an agricultural operation. Students will research the problem and design a system or solution. For example, if a school builds a school farm and raises 10 head of cattle in confinement, how will the waste be handled? The students will consider factors such as environmental concerns, health and safety regulations, amount of waste produced, reactivity of the waste products, uses for the waste, possible cost and labor requirements.

4. Soil Management Project

The soil management project, which students begin in unit 2, will be ongoing throughout the length of the course. In this unit, students will identify the nutrient deficiencies or toxicities present in the soil samples that might influence livestock production. Students will develop a written proposal for the tested soil, including soil amendments, fertilizers and application of animal waste or changes in livestock management practices to address these deficiencies or toxicities. As part of the recommendation process, students will examine the use of animal waste as a method of enhancing soil quality, using background knowledge of nuclear processes to describe variability in nutrient availability in uptake. For any toxicities present, students will examine the chemical profiles of the elements and recommend strategies for resolving agricultural issues for those elements. Students will use these soil management profiles as a component of their final course project as well as use them for subsequent units.

Unit Six: Soil Sustainability

Unit Description

Based on the accumulation of knowledge, examples and research conclusions from throughout the year, students will develop an understanding of sustainable agriculture by employing a Sustainability evaluation tool, "The 3Pillars of Sustainability, economic, environmental and social impacts" of agriculture. Students will critically evaluate and justify perspectives and determine benefits/concerns based on research and credible information. Students will investigate and evaluate the sustainability of agricultural practices. Students will design and conduct a phytoremediation lab to analyze the efficacy of salt tolerant accumulators to remove saline from the soil. Students will formulate potential solutions using the three pillars of sustainability to soil and land management problems based on agricultural scenarios and debate agricultural issues.

Key Assignments

1. Phytoremediation Lab

Students will learn the about the remediation effects of plants in the uptake of soil contaminants, in this example, reducing soil salinity. Students will research saltwater intrusion causes and implications, research phytoremediation, develop a hypothesis, design an experimental procedure, identify safety procedures specific to this experiment, collect and analyze data, and formulate conclusions. Through these steps, students will determine which types of plants are best in phytoremediation of saline ("halophytic" or salt loving plants) and the maximum amount of saline which can be removed from the soil in this way. Possible extension: Compare efficacy of procedure with different soil types Students will complete a formal lab write-up.

2. Tillage Protocols: Impact on Soil Structure and Soil Sustainability Lab

The purpose of this lab is to determine the effects of tillage practices on soil sustainability and plant growth. Using a prepared miniplot with all three tillage examples (conventional, no till, and low till) soil structure, students will measure and compare soil fertility, water holding capacity, and percolation. Students will analyze and graph their data, explain the implications of the each of these tillage systems with respect to soil and water sustainability and extrapolate those results to the effect of tillage practices effect on plant health. Students will create a poster to illustrate the benefits and drawbacks of each tillage system with respect to Soil Plants Water.

3. Land Use Planning Model

Student groups will make soil/land management decisions based on specific agriculture and land use restrictions on pieces of land such as large urban gardens, range management, forest management, and farmlands. Students will use their knowledge of physical and chemical properties of soil in regards to plants, animals and water to highlight the importance of sustainable agriculture. Getting a land use plan approved and in place with multiple interest groups is complicated and relies on the checks and balances to determine the success of the project. Each student in the group needs to take on a specific role in order to determine their Land Use Plan (such as conservationist, developer, owner, law enforcement, Department of Public Works, Anthropologist, City Planner, etc.). Each role will highlight their concerns with the Land Use Plan in relation to the impact on Earth's atmosphere, water, land, plant/animal populations, or human population. Groups will then prepare a presentation to present their plan. This presentation could be presented to the class and instructor or even community/local industry members

4. Agriculture Issue Debate and Policy Proposal

Students will begin by conducting secondary research using industry journals into the global use of methyl bromide as a chemical soil sterilant. Students will examine the pros and cons of the use of methyl bromide in terms of manipulations to the chemical profile of soil, microbiology, effects on groundwater, effects on the environmental ecosystem, runoff challenges and effects on agricultural productivity. Research should highlight chemical reactions as the primary point of focus. Students will

then be assigned a perspective related to the methyl bromide investigation (runoff or microbiology, for example) to represent in the debate, using their list of chemistry and agriculturally focused pros and cons to inform their contributions. Students will end the debate with a comprehensive analysis of the issue of methyl bromide use in agriculture from multiple angles in order to develop a model policy for their county regarding the possible use of methyl bromide in agricultural applications.

5. Soil Management Project

The soil management project, which students began in semester 1, has continued throughout the length of the course. At the end of Unit 6, students will incorporate knowledge gained from all previous labs, and the conclusions drawn from the Phytoremediation and Tillage Protocols: Impact on Soil Structure and Soil Sustainability Labs to test, analyze, treat and/or modify soil structure and fertility for specific usage/in order to achieve desired outcomes. This work will be used as evidence in the Soil Management Capstone Project and will also aid in drawing the final conclusions of the yearlong research and experimentation.

6. Effects of Climate Change

Students will research scientific journal articles, laws, regulations, case studies or other scientific evidence that illustrates the Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States. The students will be completing a literature review report and make a presentation to the class. Valuable website for students to use is http://nca2014.globalchange.gov/report/sectors

Capstone Project and Portfolio

1. Soil Management Capstone Project

As the final course capstone project, students will be given a scenario and soil sample designed around their local agriculture industry. The given scenario will provide students with specific information about the topography and climate/rainfall data of the location where the soil sample was collected. Students will use knowledge and skills learned in previous units to physically and chemically analyze the soil sample. Their soil analysis should include the composition and nutrient, pH, and salinity levels. The data collected from their soil sample analysis and the provided land information should be included in the soil management plan that the students create. The student's Soil Management Plan will recommend soil amendments, proper tillage practices, optimal irrigation methods, crop recommendations, and animal use suggestions. They should identify and evaluate a technological solution that reduces human impact on the environment including, but not limited to: water pollution, air quality, run-off, nutrient depletion, soil amendments, erosion, etc. Their recommendations and suggestions should be justified in terms of the 3 pillars of sustainable agriculture.

2. Course Portfolio

The course portfolio will provide evidence of real world agriculture application of scientific research done throughout this course. The portfolios will highlight student work from throughout the course to show a progression of learning, experimentation, and application of course content. Items that will be included in the portfolio are student lab reports, the Agriscience Research paper, and their Soil Management Plan.

E. ***<u>COURSE OBJECTIVES FOR</u>*** ***(The objectives area to include the specific, major skills or understandings which students will be able to demonstrate or acquire instruction in the course. A minimum of eight to twelve objectives should be identified for each semester of the course. Each objective is to be clearly linked to the Board adopted standards for the course or subject***

Unit	Ag Standard	NGSS Standard	Science and Engineering Practices

area; indicate the link by placing the number of the appropriate standards (s) after each objective. Minimum length: one page)

1. Agriculture and Agricultural Research Skills	C1.0 Evaluate the role of agriculture in the California economy.	**HS-ETS1-1:** Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.	**Planning and Carrying Out Investigations:** Planning and carrying out in 9-12 builds on K-8 experiences and progresses to include investigations that provide evidence for and test conceptual, mathematical, physical, and empirical models.
	C1.2 Describe how California agriculture affects the quality of life.	**HS-ETS1-2:** Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.	
	C1.4 Research the economic impact of leading California agricultural commodities.	**HS-ETS1-3:** Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.	**Constructing Explanations and Designing Solutions:** Plan and conduct an investigation individually and collaboratively to produce data to serve as the basis for evidence, and in the design: decide on types, how much, and accuracy of data needed to produce reliable measurements and consider limitations on the precision of the data (e.g., number of trials, cost, risk, time), and refine the design accordingly. (HS-LS1-3)
	C1.5 Assess the economic impact of major natural resources in California.		
	C3.1 Describe how technology affects the logistics of moving an agricultural commodity from producer to consumer.		
	C3.2 Understand how technology influences factors such as labor, efficiency, diversity, availability, mechanization, and communication.		
	C3.5 Integrate the use of technology when collecting and analyzing data.		
	C13.1 State the steps of the scientific method.		
	C13.2 Analyze an agricultural problem and devise a solution based on the scientific method.		
2. The Nature of Soil	C10.1 Recognize the major soil components and types.	**HS-PS1-1:** Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.	**Using Mathematics and Computational Thinking:** Mathematical and computational thinking in 9-12 builds on K-8 experiences and progresses to using algebraic thinking and analysis, a range of linear and
	C10.2 Summarize how soil texture, structure, pH, and salinity affect plant growth.		

	C10.3 Assess water delivery and irrigation system options.	**HS-PS1-3**: Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.	nonlinear functions including trigonometric functions, exponentials and logarithms, and computational tools for statistical analysis to analyze, represent, and model data. Simple computational simulations are created and used based on mathematical models of basic assumptions. Use mathematical and/or computational representations of phenomena or design solutions to support explanations. (HS-LS2-1) Use mathematical representations of phenomena or design solutions to support and revise explanations. (HS-LS2-2) § Create or revise a simulation of a phenomenon, designed device, process, or system. (HS-LS4-6)
	C10.4 Differentiate among the types, uses, and applications of amendments and fertilizers.		
	E3.1 Demonstrate techniques used to classify soils.		
	E3.2 Explain the reasons for, and importance of, soil conservation.	**HS-ESS2-2**: Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems. .	
	E3.3 Analyze soils found in the different natural resource management areas.	HS-ESS2-1: Develop a model to illustrate how Earth's internal and surface processes operate at different spatial and temporal scales to form continental and ocean-floor features	**Constructing Explanations and Designing Solutions**: Constructing explanations and designing solutions in 9–12 builds on K–8 experiences and progresses to explanations and designs that are supported by multiple and independent student-generated sources of evidence consistent with scientific ideas, principles, and theories.
	F5.3 Prepare and amend soils, implement soil conservation methods, and compare results.	HS-ESS2-3. Develop a model based on evidence of Earth's interior to describe the cycling of matter by thermal convection	
		HS-ESS2-4. Use a model to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate. **HS-ESS2-5:** Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes	**Obtaining, Evaluating, and Communicating Information:** Obtaining, evaluating, and communicating information in 9–12 builds on K–8 and progresses to evaluating the validity and reliability of the claims, methods, and designs.
		HS-PS1-1: Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.	
3. Soil and Water	E6.1 Summarize the different types of aquatic resources.	**HS-PS1-1:** Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.	**Asking Questions and Defining Problems**: Asking questions and defining problems in 9-12 builds on K-8 experiences and progresses to formulating,
	E6.4 Analyze the relationship between		

	water quality and aquatic species habitat.	**HS-PS1-3**: Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.	refining, and evaluating empirically testable questions and design problems using models and simulations.
	F2.4 Experiment with the factors that influence plant growth, including water, nutrients, light, soil, air, and climate.	**HS-PS1-3**: Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles. **HS-PS1-2:** Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.	
	F5.1 Explain how basic soil science and water principles affect plant growth.		**Developing and Using Models:** Modeling in 9–12 builds on K–8 experiences and progresses to using, synthesizing, and developing models to predict and show relationships among variables between systems and their components in the natural and designed worlds.
	F5.2 Illustrate basic irrigation design and installation methods.	**HS-PS1-2:** Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties. **HS-PS1-4**: Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.	
	F5.3 Prepare and amend soils, implement soil conservation methods, and compare results.		
	F5.4 Research major issues related to water sources and water quality.		**Analyzing and Interpreting Data**: Analyzing data in 9-12 builds on K-8 experiences and progresses to introducing more detailed statistical analysis, the comparison of data sets for consistency, and the use of models to generate and analyze data.
	F5.5 Explain the components of soilless media and test the use of those media in various types of containers.	**HS-PS1-6:** Refine the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium.*	
	G6.4 Research how soil biology affects the environment and natural resources.	**HS-PS1-6:** Refine the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium.* **HS-PS1-7:** Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.	**Engaging in Argument from Evidence**: Engaging in argument from evidence in 9-12 builds on K-8 experiences and progresses to using appropriate and sufficient evidence and scientific reasoning to defend and critique claims and explanations about the natural and designed world(s). Arguments may also come from current scientific or historical episodes in science.
	G8.2 Research and describe the local, state, and federal agencies that regulate water quality and availability in California.		

	G8.3 Define the definition of a watershed and explain how it is used to measure water quality.	**HS-PS1-7:** Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.	**Planning and Carrying Out Investigations:** Planning and carrying out investigations in 9-12 builds on K-8 experiences and progresses to include investigations that provide evidence for and test conceptual, mathematical, physical, and empirical models.
	G8.4 Explain effective water management and conservation practices, including the use of tailwater ponds.		
	G8.5 Use water-testing standards and perform bioassay and macro-invertebrate protocols to assess water quality.	**HS-ESS3-1.** Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. **HS-ESS3-2.** Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.*	
		HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. **HS-ESS3-2.** Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.* **HS-PS1-1:** Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.	
4. Soil and Plants	G10.1 Practice local cultural techniques, including monitoring, pruning, fertilization, planting, irrigation, harvest treatments, processing, and packaging practices for various tree, grain, hay, and vegetable classes.	**HS-PS1-3**: Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.	**Using Mathematics and Computational Thinking:** Mathematical and computational thinking in 9-12 builds on K-8 experiences and progresses to using algebraic thinking and analysis, a range of linear and nonlinear functions including trigonometric functions, exponentials and logarithms, and computational tools for statistical analysis to analyze, represent, and model data. Simple computational simulations are
	G11.1 Research how changing technology, such as micro-propagation, biological pest controls,	**HS-PS1-2:** Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron	

	plant production, yields, and management.	states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.	created and used based on mathematical models of basic assumptions. § Use mathematical and/or computational representations of phenomena or design solutions to support explanations. (HS-LS2-1) § Use mathematical representations of phenomena or design solutions to support and revise explanations. (HS-LS2-2) § Create or revise a simulation of a phenomenon, designed device, process, or system. (HS-LS4-6)
	G6.1 Understand soil types, soil texture, structure, and bulk density and explain the U.S. Department of Agriculture (USDA) soil-quality rating procedure.	**HS-PS1-2:** Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.	
	G6.2 Analyze soil properties necessary for successful plant production, including pH, electrical conductivity (EC), and essential nutrients.	**HS-PS1-4**: Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.	
	G6.3 Explain soil biology and diagram the cycles in nature as related to the soil food chain.	**HS-PS1-6:** Refine the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium.*	**Constructing Explanations and Designing Solutions**: Constructing explanations and designing solutions in 9–12 builds on K–8 experiences and progresses to explanations and designs that are supported by multiple and independent student-generated sources of evidence consistent with scientific ideas, principles, and theories.
	G6.4 Research how soil biology affects the environment and natural resources.	**HS-PS1-7:** Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.	
	G3.4 Research the factors that influence plant growth, including water, nutrients, light, soil, air, and climate.	**HS-PS1-3**: Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.	
		HS-PS1-5: Apply scientific principles and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs.	**Engaging in Argument from Evidence**: Engaging in argument from evidence in 9–12 builds from K–8 experiences and progresses to using appropriate and sufficient evidence and scientific reasoning to defend and critique claims and explanations about the natural and designed world(s). Arguments may also come from current scientific or historical episodes in science.
		HS-ESS2-6. Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.	
5. Soil and nimals	D7.1 Evaluate a rangeland and identify methods of rangeland improvement used in an effective	**HS-PS1-3**: Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to	**Planning and Carrying Out Investigations:** Planning and carrying out investigations in 9-12 builds on K-8 experiences and

animal production program.	infer the strength of electrical forces between particles. **HS-PS1-4**: Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.	progresses to include investigations that provide evidence for and test conceptual, mathematical, physical, and empirical models.
D7.2 Summarize how rangeland management practices affect pasture production, erosion control, and the general balance of the ecosystem.	**HS-PS1-6:** Refine the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium.*	
D7.4 Evaluate a plan to balance rangeland use for animal grazing and for wildlife habitat.	**HS-ESS3-3:** Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.	
D8.1 Assess treatment and disposal management systems for animal waste.	**HS-PS1-2:** Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.	
D8.2 Compare various methods for using animal waste and the environmental impacts associated with each method.	**HS-PS1-2:** Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.	
D8.3 Research the health and safety regulations that are an integral part of properly managed animal waste systems.		
D10.1 Formulate and implement optimum requirements for diet, genetics, habitat, and behavior in the production of large and small animals.	**HS-LS2-4**. Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.	
D2.1 Assess the flow of nutrients from the soil, through the animal, and back to the soil.		

	D2.2 Explore the principles for providing proper, balanced rations for a variety of production stages in ruminants and monogastrics.		
6. Soil Sustainability & Agricultural Technology	G9.3 Differentiate among the components of "whole-system management."	**HS-LS1-6**. Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.	**Using Mathematics and Computational Thinking:** Mathematical and computational thinking in 9-12 builds on K-8 experiences and progresses to using algebraic thinking and analysis, a range of linear and nonlinear functions including trigonometric functions, exponentials and logarithms, and computational tools for statistical analysis to analyze, represent, and model data. Simple computational simulations are created and used based on mathematical models of basic assumptions. § Use mathematical and/or computational representations of phenomena or design solutions to support explanations. (HS-LS2-1) § Use mathematical representations of phenomena or design solutions to support and revise explanations. (HS-LS2-2) § Create or revise a simulation of a phenomenon, designed device, process, or system. (HS-LS4-6)
	C3.5 Integrate the use of technology when collecting and analyzing data.	**HS-LS1-6**. Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules. **HS-LS4-6**. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.	
	C3.2 Understand how technology influences factors such as labor, efficiency, diversity, availability, mechanization, and communication.		
	C2.1 Identify important agricultural environmental impacts on soil, water, and air.	**HS-LS4-6**. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity. **HS-LS2-7**. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.*	
	C2.2 Explain current environmental challenges related to agriculture.		
	C2.3 Summarize how natural resources are used in agriculture.	**HS-LS2-7**. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.* **HS-LS2-2**. Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.	
	C2.4 Compare and contrast practices for conserving renewable and nonrenewable resources.		
	E3.4 Develop and implement a soil management plan for a natural resource management area.	**HS-ETS1-2**. Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through	**Engaging in Argument from Evidence**: Engaging in argument from evidence in 9–12 builds from K–8 experiences and progresses to using appropriate

		engineering.	and sufficient evidence and scientific reasoning to defend and critique claims and explanations about the natural and designed world(s). Arguments may also come from current scientific or historical episodes in science.
	E3.5 Understand how to analyze existing soil surveys to develop effective management plans.	**HS-ETS1-2.** Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. **HS-ETS1-1.** Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.	
	G9.1 Identify and classify the plants and animals in an agricultural system (as producers, consumers, or decomposers).		
	G9.2 Compare and contrast the elements of conventional, sustainable, and organic production systems.	**HS-ETS1-1.** Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. **HS-ETS1-4.** Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.	**Constructing Explanations and Designing Solutions:** Constructing explanations and designing solutions in 9–12 builds on K–8 experiences and progresses to explanations and designs that are supported by multiple and independent student-generated sources of evidence consistent with scientific ideas, principles, and theories.
		HS-ETS1-4. Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem. **HS-ESS3-4.** Evaluate or refine a technological solution that reduces impacts of human activities on natural systems. **HS-ESS3–5.** Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems. **HS-ESS3-6.** Use a computational representation to illustrate the relationships among Earth	

		systems and how those relationships are being modified due to human activity.	

F. ***STUDENT EVALUATION STANDARDS*** ***(List the criteria on which students will be graded in the course. Give the approximate weight for each of the grading criteria in determining the student's grade, such as tests, homework, labs, class participation. Also indicate the weight given to quarter grades and semester final in tabulating the final grade.)***

Assignments	**30%**
Labs	**30%**
Assessments	**30%**
FFA and SAE Participation	**10%**

G. ***SUGGESTED INSTRUCTIONAL ACTIVITIES*** ***(This item is optional and is not required of the course of study. If it is completed, it should include teacher and/or student activities such as field trips, demonstrations, speakers, or special procedures that will assist the students in learning the course objectives.)***

Prepared by Elizabeth Bledsoe, Carolee Trimble

Kern High School District
Office of Instruction

DPC#: _____
Approved by Board: _____

Sustainable Agriculture: A Biological Approach to Industry Practices

A. COURSE INFORMATION

Grade Level:	9-10 Grade
Length of Course:	2 semesters
Maximum Credit:	10
Type: Lab Science Life Science	
Recommendation for Enrollment:	Recommended for Freshman level students, but can be applied to all levels

B. COURSE DESCRIPTION *(Include a brief explanation of the course; mention any prerequisites, including standardized test scores; and indicate whether the course satisfies a specific gradation requirement.)*

Sustainability is based on a simple principle: Everything that we need for our survival and wellbeing depends, either directly or indirectly, on our environment. Sustainability creates and maintains the conditions under which humans and the biotic world can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations. Sustainability is important to making sure that we have and will continue to have, the water, materials, and resources to protect human health and our environment. (adapted from http://www.epa.gov/sustainability/basicinfo.htm)

Sustainable Agriculture is a one year course designed to integrate biological science practices and knowledge into the practice of sustainable agriculture. The course is organized into four major sections, or units, each with a guiding question. Unit one addresses the question, What is sustainable agriculture? Unit two sustainable agriculture fit into our environment? Unit three, What molecular biology principles guide sustainable agriculture? Unit four, How do we make decisions to maximize sustainable agricultural practices within a functioning ecosystem? Within each unit specific life science principles will be identified with agricultural principles and practices guiding the acquisition of this knowledge, culminating in the development of a sustainable farm model and portfolio of supporting student research.

C. INSTRUCTIONAL MATERIALS *(List the basic text – include title, edition, author, and copyright – and other essential supplementary materials or instructional resources/materials used in the course.)*

Miller and Levine, Biology, Prentice Hall, copyright (2007)

Supplemental Materials

Herren, Ray V. The Biological Approach to Agriscience .4th edition. Delmar Thompson Learning. 2012. New York.

Herren, Ray V. Introduction to Biotechnology: An Agricultural Revolution .Delmar Thompson Learning. 2005. New York

Camp, William G. and Thomas B. Daugherty. Managing our Natural Resources. Del Mar Publishers. 1998. New York

Baker, MeeCee and Robert Mikesell. Animal Science: Biology and Technology. 3rd edition. Delmar Cengage Learning. 2011.
New York

Bidlack, James and Shelley Jansky. Stern's Introduction to Plant Biology. 12th edition. McGraw Hill Publishing. 2010. New York.

Burton, Devere L. and Elmer L. Cooper. Agriscience: Fundamentals and Application. 3rd edition. Delmar Thompson Learning.
2002. New York.

International Food Information Council. Biotechnology: A Communications Guide to Understanding. 2003 edition. Washington D.C.

Great Lakes Bioenergy Research Center. 2007-2013. Bioprospecting Laboratories
https://www. glbrc.org/education/classroommaterials. Wisconsin.

United States Environmental Protection Agency. 2000-2014.What is Sustainability?
www.https://ipa.gov/sustainability/basicinfo.html Washington D.C.

COURSE OUTLINE ***(List the major content areas of the course an divide them according to the semester in which they fall. Designate the approximate amount of time given to each of the content areas. Suggested length: one page.)***

Unit One: Driving Question: What is sustainable agriculture?
This introductory unit will focus on the biological classifications of agriculture and their associated industry sectors, what sustainability is, and how the scientific method is the driving force behind advancements and developments in sustainable biological practices within agriculture. Students develop an overview of agricultural industries and biologic practices through research projects on facets of California agriculture, and identify what sustainability and sustainable practices are through individualized lab experiments relating to current practices. Ultimately, students will be able to use the scientific method to complete an extensive laboratory experiment that is designed to evaluate potential feed source varieties for sustainable success within their local community.

Assignment Summaries:

"What is sustainable agriculture?"
Students groups will research the various biological divisions of what constitutes agriculture. (Plant science, animal science, forestry, horticulture, etc.) Within their research they will identify the sub categories of industry that fall within their topic, what career paths are available within each, what are currently identified as "best practices" (such as the three E's of sustainability economics, ecology and equity) and what are some of the sustainability issues and biologic concerns within each of these divisions. Students will then develop a multimedia presentation to introduce their particular area of agriculture to the class and identify the most prevalent issues facing their particular field of interest.

"That's Ag The Science Behind Agriculture"
Categorical Based MiniLabs:

Student groups will design and complete an inquiry based minilab experiment to expand on their knowledge of the particular industry sector they researched from the previous activity. Choosing a focus from one of the areas of concern or issues within their sector, students will then design and implement an experiment that tests factors contributing to the issue and potential impacts they have on the population using scientific method learned in class. Examples might include a lab on animal production and energy flow, a lab on soil degradation and plant germination, a lab on food processing practices, a lab on postharvest preservation, etc. The labs will introduce the application of inquiry within the agriculture sectors and the importance of the implementation of research in the industry. Design protocols, data, and analysis will be submitted in lab report format. As part of their analysis, students must use their data to make suggestions on how to improve efficiency or yield, or lessen the impact of processing, relevant to their finding of their particular experiment.

Scientific Method and Sustainability Lab "Work Like a Scientist"
In this lab students are introduced to the scientific method, the basis for all scientific decision making. The native grasses research will provide students with the foundation of scientific investigation application as well providing key research that will be used in the final unit project as well as the end of course project. Students will research the difference between native grasses versus invasive grasses including specific species. Using this knowledge they will hypothesize germination rates between these two variable groups. Students will then design and implement an experiment incorporating quantitative data collection, analysis, and draw conclusions reflective to their hypothesis, and evaluate the grasses for potential sustainability within their communities.

As a continuation of the germination experiment, given that the two variables have differing germination rates, students can identify other measures of "success" of a potential feed crop. They will then sample the community environment for the potential factors affecting the continued growth and development of grasses. Samples would include soil testing, (pH, nutrient composition, structure and texture, and water capacity), water availability, and ambient temperatures. Combining this information with the initial background research regarding natives versus invasive, students will hypothesize on the continued success of their germinating grasses, then transplant their seeds into test plots or fodder trays, and allow for continued growth. After a predetermined amount of time, sample plots will be analyzed for percent coverage and measurements of species biomass will be completed. Using this information students will determine the most biologically suitable grass species to plant that would be the most sustainable within the local community through a written lab completed in their lab notebook and a PowerPoint presentation of their hypothesis, design, data and conclusion.

Unit Two:

Driving Question: How does sustainable agriculture fit into our environment?
While unit one examined whole systems, unit two takes a closer look at components within that system. Students will use evidence gathered from a series of laboratory exercises to be able to describe the transfer of energy from one trophic level to another as well as the cycling of nutrients and energy through ecosystems. Students will be able to draw conclusions about these biogeochemical cycles and how they apply to sustainability of production agriculture. Specifically, students will conduct primary research in the areas of photosynthesis and chemical energy creation, nutrient cycling, transpiration and water use, ecological relationships and global farming practices in order to draw biologically sound conclusions regarding the effects of agriculture on the natural environment. The students learning will culminate in a synthesis of concepts applied to the development of a three year sustainable crop rotation plan.

Assignment Summaries:
"Bacteria at Work" Nitrogen Fixation
Students will analyze the effects of nitrogen fixation on plants initially by examining prior studies as well as industry publications regarding the role of nitrogen in plant growth and the methods by which

farmers enhance nitrogen levels in soil. This should include a thorough look at the microbiology of nitrogen fixing bacteria, plant and root physiology, nutrient cycling and uptake in plants, chemical processes and cellular respiration in plants and fertilization methods. After garnering that background information, students will conduct an experiment that compares the effects of added nitrogen fertilizer versus nitrogen fixing bacteria on the growth of clover. Students will grow clover plants in soil with no nitrogen added, in soil with nitrogen fertilizer added, and in soil containing nitrogen fixing bacteria (in this case, a species of rhizobia called
Rhizobium legominosarium, or R. legominosarium). Students will monitor the nitrogen levels in each type of soil using a nitrogen testing kit. The students will observe the effects of nitrogen on the health of the clover plants by measuring the increase in biomass of each plant during the experiment. Plants should be harvested, soil washed away, and weights taken on plant material produced. Students will use the data collected to create a graph showing the relationship between nitrogen availability in the soil and crop sustainability. This allows students to not only experience agriculture's role in the nitrogen cycle, but also provides necessary supporting data for decision making in the final end of course project.

"Morning Jolt!" Photosynthesis Lab
Photosynthesis is the basis for the creation of chemical energy in the natural world. Plants require light in order to transform one type of energy into another, and the quantity and type of light determine the optimal photosynthesis rates. Students will conduct a laboratory exercise that examines the effects of shade on the growth of plants and the rates of photosynthesis and will develop a written memorandum to the International Coffee Growers Association regarding optimal shade levels for the growth of coffee trees, including information regarding ecological sustainability involved in the practice. The process will begin by using industry journals to examine coffee production methods; primarily comparing and contrasting industrial coffee production with shade grown, sustainable coffee production. Students should come up with the following information: arabica coffee has the highest yields under 35 to 65% shade. In addition, growing coffee under shade also discourages weed growth, may reduce pathogen infection, protect the crop from frost, and helps to increase numbers of pollinators which results in better fruit set. However, in order to produce faster, higher yields and prevent the spread of coffee leaf rust (Hemileia vastatrix), many coffee plantations began to grow coffee under sunnier conditions. The fewer shade trees that are in coffee plantations, the less biodiversity there is in those plantations.

The laboratory exercise will use several small coffee plant starts (available for purchase online as seeds or a houseplant) and will grow them for a series of days under varying shade levels. Students will conduct visual assessments of plant health and growth, then conduct a traditional floating leaf disc assay protocol to assess photosynthesis levels under varying light conditions. Students will use both the previously gathered background information regarding industry practices, sustainability and plant growth as well results of the primary research to develop the memorandum regarding optimal shade levels for sustainable coffee growth.

"Move on Through" Transpiration Lab
Students will initially conduct background research into water use in agriculture and
the demands placed on farmers to be efficient and careful with this scarce natural resource. Students will then investigate transpiration as part of the hydrologic system, based on different genetic variations of plant structure (leaf type and shape, for example). Students will conduct a research exercise by examining transpiration in plants with various leaf structures. This can occur using locally grown crops or by using exotic crops and adding a component regarding appropriate plant selection. In this lab, students will use the plant weight protocol to measure the transpiration rates of individual plants. Students give plants a predetermined amount of water, reweigh the plants, and continue weighing the plants over time to contrast weight differentials and determine water loss through transpiration. Students will monitor observable physical changes in the different plants' condition as water is depleted, collecting qualitative data and measuring the diurnal transpiration rates. Students will apply the individual plant water usage data to larger scale acreage to analyze water usage.

Students will create a written case study to justify plant selection within the context of the sustainability of the hydrologic system.

Optional extension: include in the case study how trends in daily transpiration rates change if water losses were replenished through different irrigation management techniques (drip, flood, etc.).

"From Trash to Gas" Sustainable Waste Management

Students will use both primary and secondary research to discover that food scraps, dead plants, manure, and other decaying organic matter, called *biomass* are a rich source of energy. Energy can be procured from biomass by turning it into a gas called *biogas.* The process will begin by students examining agricultural examples of biogas production (small scale composting, dairy lagoon gas extraction, codigestion, etc.) as well as the microbiological basis for biogas production, including aerobic and anaerobic fermentation, cellular respiration, lignocellulosic breakdown, etc. As part of this analysis, students will compare the amounts of biogas produced by different types of biomass. In order to quantify their findings, students will conduct an experiment with three soda bottles filled to the same volume with various types of biomass commonly used in biogas production. Bottle one will contain cow manure, bottle two will contain cow manure and household kitchen scraps, and bottle three will contain cow manure and a biological waste product of the students choosing (teacher approved). Bottles will be topped with a small balloon. Students will record the circumference of each of the balloons at the same time of day over a period of 10 days as well as record observations of the biomass inside of the bottles. Students will create a graph representing the circumference of balloons and the number of days. Students will compare graphs to determine which biomass type produced the fastest inflation of the balloon. Upon completion of the experiment, the students will then need to develop a written plan for how this naturally occurring byproduct can be harnessed to benefit a farming situation. In addition to incorporating their data, this plan should include: research on how the gas is used, the scientific processes behind biogas creation (fermentation, anaerobic digestion, etc.), biomass feedstocks that can be used to create efficient quantities of biogas, potential uses of biogas, and potential economic and sustainable benefits of instituting a biomass digester.

"Composting, Do the Rot Thing"

Students will examine the principle of composting organic material, and the process of converting complex organic matter into the basic nutrients needed by living organisms. Prior to conducting the experiment, students will use industry and extension publications to learn the processes of composting, as well as the benefits and challenges of compost production (available nutrient levels, community perceptions, hazardous materials, smell, storage, etc.). Following the background research, students will conduct a laboratory exercise that will examine the utilization of organic wastes (household) as nutrients for plants. It will allow students to investigate which waste products can be composted and best utilized by plants. Based off of prior knowledge of an ecosystem and how ecosystems regenerate as well as the interaction of food and fiber systems with natural cycles, students will justify specific nutrient requirements, as well as renewable and nonrenewable natural resources. Students will prepare three test plots, one plot with just soil, one with soil and household waste products collected by students, and one plot with animal waste products. Students will then monitor plant growth and development to graph their results. Students will create an informational, six paneled brochure that explains a waste management plan using compost. Included in the brochure should be information regarding the microbiology of compost production in addition to the practical household application of the research. Additionally, the brochure should outline the removal of organic matter to increase ecological sustainability while having the least environmental impact on the farm and community.

Unit Assessment

Plant, Grow, Rotate, Repeat Sustainable Crop Management Plan

Students will apply concepts of the biogeochemical cycles as well as waste management to create a 3 year sustainable crop rotation plan that produces the highest crop yields for any given location with

the least environmental impact. Students must analyze current soil conditions as well as community needs when considering their crops for production. Student focus should be on nitrogen fixation of specified crops. Students will use previous knowledge of ecosystems, invasive species, and producer and consumer relationships as well as research current market prices and local demands, to assess the environmental contribution and the economic impact from each crop. When creating the 3 year crop rotations students will defend their selections and the ecological impacts of their decisions. The synthesis of the students' research will culminate in written proposal to a local producer.

Unit Three:
Driving Question What molecular biology principles guide sustainable agriculture?

In this unit, students will examine the science of agriculture and evaluate the efficiency and sustainability of current methods. Students will explore the concepts of taxonomy of plants and nomenclature of animals, cell structure, cellular division, DNA, and chromosomes. Students will apply this knowledge to evaluate desirable inheritable traits in each species to artificially select characteristics to breed more efficient and productive offspring as a part of their created breeding plan. Students will be introduced to genetic markers, genetically modified organisms, and biotechnology. With this knowledge students will examine and evaluate biotechnology, the ethics of genetic manipulation, and its implication on the sustainability of agriculture and our ability to feed a growing population. As a culminating project for the first two units students will design, conduct, and interpret their own agricultural research project on a biological issue facing agriculture and present their findings with a visual, written, and oral report.

Assignment Summaries:
"Breed For The Need" Sustainable Breeding Evaluation
Animal genetics play a role in sustainability. An animal that is genetically predicted to become heavier muscled in a shorter period of time will utilize less pasture and nutritive resources than one that takes longer to reach the same weight. A female who produces more milk to feed her offspring will utilize less resources for both her and her progeny. Therefore, summative phenotypic traits are important to evaluate in a sustainable ecosystem in order to efficiently utilize natural resources. By analyzing these traits students can determine the probability of the trait expression in an animal's offspring. After instruction on chromosomal physiology, multicellular organization, animal anatomy, basic heredity, and genetic expression, students will identify desirable characteristics from a group of four animals of the same species to create a sustainable breeding plan that will include: hybrid vigor, genetic efficiency and other genetic traits. Students will use three components to evaluate the group of four animals that include the farmer's sustainability scenario, expected progeny difference data and phenotypic valuation of the animals. First students will read an agricultural producer's written scenario that describes the targeted phenotypic traits a farmer desires based on the environment that must sustain the health and nutrition of the specific animals while not depleting the natural resources within that biological system. The parameters of the traits the students will evaluate include milk production (the weight of the weaned offspring that was contributed to the amount of milk the mother produced), weaning weight (the weight of the offspring when removed from the mother), yearling weight (the weight of the offspring at eighteen months of age and birth weight (the weight of the offspring at birth). Next, the students will read and analyze Expected Progeny Difference (Summative phenotype expression) data. Finally, students will perform visual observations of the phenotypic traits in those four animals. Students will assess and prioritize the three analyzed components based on importance and collectively use them to place the four animals in phenotypic order from the most desirable for the environment to the least desirable according to the farmer's sustainability scenario. Students will give an oral defense with evidence to support reasoning.

"Where Should I Make My Home?" Sustainable Production Plan

The students will be put into groups and collectively evaluate the same animals from the previous activity with summative phenotypic traits for each of the bio geological growing zones in California which are desert and high desert, coastal, valley, foothills and mountains. Instruction should occur on plant taxonomy and livestock anatomical suitability (large animals in areas with poor biomass production, genetic hardiness factors, etc.) prior to the secondary research being done. Research done on each zone will provide information on the possible sustainability plans in which the four animals could be raised. Students will research the ecosystem of each area, analyzing what crops, pasture and range can be grown and the effects of climate and rainfall on the availability of nutrients for the animals' sustainability. Based on the data accumulated from the research they will reevaluate the four animals from the previous lab including EPD data. For each zone they will place the animals in order from the one most suited and efficient to the least. Students construct a written defense for their decision in the placing of those animals in each zone based on their data and research. They will argue the merits of their placing based on the data from their zone research: native and nonnative grass and crop survivability in each zone that provides nutrition to the animals, biological merits and disadvantages of each zone on the animals. They will then use the zone information to reevaluate the EPD data and how it can be best utilized to meet the animal's biological needs. Using the research and accumulated data students can determine a class placing for each region of California .

"Battle of the Seeds" Biotechnology Use in Agriculture

Crop decisions made by agricultural producers are often predicated on understanding the climate, rainfall and topography needs of their growing area. These decisions often prioritize crop yield, but also must take into account the biological health of each system. The previous lab focused on evaluating the efficiency of specific animals introduced into an ecosystem where the biological components were predetermined and consistent. In this activity, students explore the introduction of new plants into predetermined, consistent ecosystems by investigating how germination, growth and efficiency of plants (crops) can be affected by genetic and environmental changes. Prior to the experiment, students should be instructed in cell division and structure as functions of organism growth, genotypic traits and variable expression, traditional hybridization methods and modern genetic manipulation. For the primary research exercise, students will set up three demonstration plots to compare growth and yield rates of plants. Half of the class will grow unweeded plots of plants, manually weed controlled beds, and chemically controlled beds with plants that have been genetically modified to withstand the effects of a widely used herbicide. The other half of the class will grow hybrid seed, nonhybrid seed, and genetically enhanced seed of the same plant. Upon analyzing data of plant growth and yield rates students will calculate the cost in time and money for the methods demonstrated. Students will formulate a written opinion/thesis and defend from evidence the most sustainable method of growing food based on their experiment. Students determine the statistical, economical and biological differences of genetically modified organisms as compared to natural organisms. Students will then research public concern of genetically modified organisms to prepare for a class debate. Utilizing their experimental results and research students debate the use of biotechnology and genetically modified organisms playing one of four following roles; a leader of a developing nation where hunger is a problem among their citizens, a biotechnology company specializing in producing genetically modified plants, a farmer, or a parent who primarily purchases organic produce. Students will reflect on their original opinion and write what they learned as a result of this experience.

Unit Assessment:

"Hypothesize, Analyze, Repeat" Formal Research Project

Labs and activities have been done in this unit that represent the common applications of biological factors such as genetic potential and variability of plants and animals, the symbiosis of animals and plants within an ecosystem and the impact of new species introduced into an established environment. Students will utilize the science of nature they learned in unit three, how that science fits into the biological systems from unit two and how those systems contribute to sustainability in unit one to develop a comprehensive agriscience experimental research project. Students will identify a problem related to agriculture that is the result of completing the first three units of the course (plant

science, animal science, natural resources). Students will utilize the empirical method to design an experiment that will test their own authentic hypothesis using the skills and processes learned throughout the course that include dissecting published research and studies, testing the hypothesis, collecting, synthesizing, analyzing and interpreting data, accepting or rejecting the hypothesis based upon the data, technical reading and writing, and scientific collaboration.

Specific expectations for the written research project are outlined below:
1. Forming a Hypothesis Students will use credible sources to conduct background research on the agricultural issue they are investigating, and they will use this research to generate a testable hypothesis related to the scientific problem they have identified. The hypothesis developed by the student will be constructed with the independent and dependent variables in mind.
2. Experimental design and conducting experimentation Students will construct an experimental design to test their hypothesis. A written experimental design should be constructed consistent with scientific protocol using a systematic approach outlined in the previous units. Students will have their experimental designs reviewed by industry experts, agricultural instructors, local growers/producers, researchers or university representatives. After validating the design using the peer review process, students will move to the experimentation phase of their research. Experimental designs should include replicates, control groups, and determine the variables to be controlled and how. Additionally, a determination should be made as to the type of data that will be collected and in what ways, with the emphasis placed on quantitative data or quantifying data that is qualitative in nature. Students will use their experimental design to test their hypothesis. For example, in a study of primed versus nontreated seeds, seeds would be planted in identical environments, multiple test groups would be established and compared to a control group, and the number of germinated seeds would be counted and recorded to quantify the outcome. Raw data should be recorded using a field book or electronic device.
3. Analyzing data, interpreting data and forming conclusions. Students will determine the best methods for organizing their data using tables.
Students will use mathematical principles to synthesize their data, calculating a mean, for example. Furthermore, a statistical analysis of the data will help the student determine if the results are due to chance or the independent variable that was tested. Students will choose the best way to present their data using graphs they believe will most effectively demonstrate their findings, and will further summarize what each graph shows. Finally, students will interpret the data and formulate conclusions based on the results. In the written conclusion, students will use their data to either accept or reject the original hypothesis. Conclusions should be directly supported by the data and supported by previous research. Students will also identify the limitations of their research, improvements that could be made to the experimental design, as well as future studies that may be conducted that relate the study at hand.
4. Evidence of Performing the AgriScience Research Project
Students will submit their research in a written paper, and it will include the following components: problem/purpose, background research, hypothesis, methodology, results/data, and discussion/ conclusion. The paper will be written using skills associated with technical and scientific writing, for example, refraining from the use of personal pronouns or keeping discussion limited to what the research and data suggest rather than personal opinion and bias. APA format will be utilized to reference and cite sources. Students will create a visual display board, using a digital format that mirrors the use of research posters in higher education, which will also include all of the components of the paper, but in a condensed form. The peer group that reviewed the original experimental design will review the final research paper. The project and its findings will be shared with the class in an oral presentation, with the research board on display to aid in communicating the results of the research.

Unit Four:
Driving Question: How do we make decisions to maximize sustainable agricultural practices within a functioning ecosystem?

Description of Topic: Students will understand common practices in the agriculture industry that promote sustainability. They will evaluate and/or refine technological solutions that reduce impacts of human activities on natural systems by using practices that utilize cellular biology, genetics, energy cycles, biological systems, plant and animal nomenclature and how these units collectively create ecosystems that were covered in the previous units. Students will conduct production practices in the areas of animal science, horticulture, and natural resources. Students will experience how the biological systems can be changed at the cellular level, promoting the emergence of new energy cycles that produce useful, recyclable products that have a positive impact on the environment, thus decreasing the impact of agriculture on the environment and promoting sustainability. Students will investigate positive sustainable approaches to changing negative impacts agriculture has on the land by testing methods of efficiency in laboratory work. This experience will give students perspective on production costs and resource needs in relation to animal welfare, mechanization versus labor, and use of chemicals to nonuse of chemicals. Students will utilize this hands on production experience to develop their own sustainable farm as a culminating final project to illustrate the management of agricultural systems, management of natural resources, the sustainability of an ecosystem for the future while preserving biodiversity.

"Show Me You Care" Practice in Animal Health Management

Common animal production practices are done to ensure multisystem homeostasis and to foster productive animal growth and general welfare. Prior to conducting a laboratory exercise, students will engage in secondary research that seeks to correlate common livestock production practices to maintaining system health in animals. For example, castration, tail banding, hoof trimming and vaccinations prevent pathogen (viral, bacterial, fungal and parasitic) infections and thereby ensuring the health of the immune system, lymphatic system and respiratory system, among others. Shearing, clipping and dehorning are noninvasive procedures that provide recycling opportunities of animal byproducts but are also designed to maintain homeostasis and to protect vital organs throughout multiple systems (shearing reduces overall stress on the circulatory system, for example). Animal identification requires animals to have a traceable number like the scrapie tag that traces the animal to the breeder in case an animal tests positive for the genetic disease and ensure herd health (preventing disease outbreaks that can stress multiple systems).

After the conclusion of the background research, students will engage in a laboratory experience where they will conduct common livestock production procedures practiced in the United States through the application of: castration methods, dehorning practices, vaccination protocols, identification systems and shearing techniques. Students will divide into groups to demonstrate one or more of the common livestock production practices within several species of livestock and small animals. After the conclusion of each of these demonstrations, students will choose one method they demonstrated and write an explanatory position paper that correlates the production practice to physiological health in the animal, highlighting homeostatic mechanisms and system nomenclature.

"If You Root It, They Will Grow" Sustainable Practices in Horticulture

The ability to graft, increase growth rates and clone species of plant, trees and crops is an option that can increase the number of organisms that can be planted in a shorter amount of time. Using one plant to create many or the ability to grow different varieties of fruit on one tree maximizes the efficiency of each organism within an ecosystem. The ability to utilize this technology increases species diversity while positively affecting land biomass. Students will experience a laboratory activity, conducting propagation techniques that make plants more efficient and in return contribute to the energy cycles within the ecosystem potentially maximizing sustainability of the plant and its production. This laboratory lets students use asexual propagation through the application of auxins directly onto plants used as a common practice in the horticultural industry. Students will also research the role of auxins and make predictions on its effectiveness on their assigned mother stock

plant. Through teacher demonstration, students will learn the proper steps of asexual propagation and make cuttings of their plant. Each student will test the effectiveness of auxins (rooting growth hormone) with one row in a flat being a different concentration of hormone and one control. After two weeks students will collect data every three days and record the rate at which their plant cutting roots. Students will calculate the cost of hormone treatment versus the time for cuttings to root to recommend the use or nonuse of auxins on their assigned plant in their lab report.

In the next step of the laboratory students will practice the proper steps of transplanting and fertilizer use as regular practice in the horticultural industry. Students will take their rooted cuttings and transplant them to a larger container. After direct instruction on types of fertilizers, students will make predictions on the most effective type of fertilizer for their rooted cuttings; liquid, slow release, and organic. Students will be assigned a growing area (landscape plot, or one gallon containers) to conduct their experiment. Students will test each type of fertilizer with four rows of plants. One row will be the control, without fertilizer application and the other three rows will have liquid, slow release, and organic fertilizer applications. Students will take daily measurements and make final conclusions of fertilizer effectiveness for their plant. Students will also compare cost of fertilizer to effectiveness to determine final recommendations in their lab report.

"It's Easy Being Green Growing Green Communities" Landscaping

Students will utilize the Horticulture report and experience to create a landscape plan in groups. Students will utilize the original cuttings from the previous activity which are now grown plants. Each group will use those plants in designing a landscape for a specific area designated by the teacher that could include areas around the school and/or community. Students must consider plant growth requirements, resources such as water, soil quality, and fertilization needs. Students must address the long term needs of their landscape and write a reflection on the positive and negative aspects with recommendations for more sustainable qualities. The students will submit their designs in a written proposal to the school and or community organizations for approval. Those approved will be planted and maintained by the group for the rest of the year.

"Use Me Responsibly or Lose Me Forever" Using Nature's Natural Resources

Students will delve deeper into natural resources conducting research on bioprospecting. They will use the knowledge gained within this unit regarding the potential to change the future through bioprospecting and the need to prevent the exploitation of those resources to preserve the biospheres for future generations. Students will read articles about the use of plants and animals in nature like coral producing a natural sunscreen named, "Sunscreen 855". To prevent the harvest of coral in order to save the barrier reef they isolated the compound and produced it in a lab that will be the most naturally occurring sunscreen developed. Students will discuss the importance of bioprospecting, as well as how the prospect of products from plants and animals argues for the continued maintenance of biodiversity and sustainability as long as the resources are not exploited.(Biology,Prentice Hall) After the discussion students will research other types of bioprospecting happening in agriculture. They will choose one material (natural resource) being prospected and find the following information from their research: what research is being done on the material, how are they utilizing the material and how does the research and use of the material play a role in sustainability. The information accumulated on the material bioprospecting will be utilized in a flyer created by each student. The flyers will be

Setup in a walking gallery where the students will use a bioprospecting rubric to score the importance of each natural resource presented as a valuable material for continued research. The students will have a class discussion about which three natural resources are the most valuable source of bioprospecting to contribute to sustainability of the human population.

Bioprospecting "Motoring with Microbes"

Discovering Cellulose Microbes for Biofuel Efficiency

The students will then conduct a research lab on Bioprospecting for Cellulose Degrading Microbes: Filter Paper Assay Method where Students collect samples that they predict will contain communities of cellulose degrading microbes and test for the ability of microorganisms in their samples to break

down pure cellulose (filter paper). In the process, groups collect evidence to test predictions about which environmental microbial samples will be the most effective for degrading cellulose. By comparing results across groups, students can begin to uncover patterns and develop explanations about the types of environments that support cellulose degrading microbes. This lab method is nearly identical to that used by researchers and student results could help scientists discover new enzymes for efficient biofuel production that is key in agriculture's ability to remain sustainable in the next century. https://www.glbrc.org/education/classroommaterials Students will turn in a completed lab using scientific method and write an abstract of their research to send to the Great Lakes Bioenergy Research Center as part of their ongoing research on biofuel.

Unit Assessment and End of Course Project
"I Believe in the Future of Agriculture" Sustainable Farming Project
Students will design a solution for developing, managing, and utilizing energy and resources through the development of a completely sustainable farm on 400 acres that must include a minimum of three crops and two species of animals. A comprehensive farming portfolio will be created. The portfolio will include data and research done from each unit within the course to be used to create their farm as well as provide evidence to defend the sustainability of that farm and thus, the best representative of sustainability. The students must research genetic varieties of crops and species of animals based on genetic efficiency and commensalism. Attention to how soil nutrients and deficiencies affect vegetative reproduction, germination, plant growth and crop adaptation within an environment must be utilized in the research. Based on the data the students will determine the crops to be produced. They will research and evaluate the species of animals that will have a symbiotic relationship with the crops they have chosen above. Phenotypic and genotypic traits, hybrid vigor, commensalism, and other variables should be used to determine the two species of animals that will be best suited for the designed environment while providing for the welfare of the animals' health and nutrition. Animal welfare must be addressed in the decisions made to create a farm that is positive and biodiverse in nature. Environmental impacts based on the crops and animals raised on the farm need to be identified dealing with biological magnification, depletion of soil /plant nutrients , use of natural resources , pollution issues dealing with waste and desertification. The students will use this information as well as the data and labs from the previous units to determine the carrying capacity of livestock and acres of crops to be grown on the farm. Biological methods of reducing the identified environmental impacts will then be designed by the student, which could include methane digesters, aquaculture, CO2 collectors and irrigation water recycling. Finally, students will address the management decisions made to reduce the farm's carbon footprint over a decade of production. The portfolio and presentations will be presented to the local farm bureau as well as other agriculture associations and businesses.

E. ***COURSE OBJECTIVES FOR*** ***(The objectives area to include the specific, major skills or understandings which students will be able to demonstrate or acquire instruction in the course. A minimum of eight to twelve objectives should be identified for each semester of the course. Each objective is to be clearly linked to the Board adopted standards for the course or subject area; indicate the link by placing the number of the appropriate standards (s) after each objective. Minimum length: one page)***

Unit	Ag Standard	NGSS Standard	Science and Engineering Practices
1. Agriculture and Agricultural Research Skills	C1.0 Evaluate the role of agriculture in the California economy.	**HS-ETS1-1:** Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.	**Planning and Carrying Out Investigations**: Planning and carrying out in 9-12 builds on K-8 experiences and progresses to include investigations that provide evidence for and test conceptual,

C1.1 Understand the history of the agricultural industry in California.	**HS-ETS1-2**: Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.	mathematical, physical, and empirical models.
C1.2 Describe how California agriculture affects the quality of life.	**HS-ETS1-3**: Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.	**Constructing Explanations and Designing Solutions**: Plan and conduct an investigation individually and collaboratively to produce data to serve as the basis for evidence, and in the design: decide on types, how much, and accuracy of data needed to produce reliable measurements and consider limitations on the precision of the data (e.g., number of trials, cost, risk, time), and refine the design accordingly. (HS-LS1-3)
C1.3 Analyze the interrelationship of California agriculture and society at the local, state, national, and international levels.		
C1.4 Research the economic impact of leading California agricultural commodities.		
C1.5 Assess the economic impact of major natural resources in California.		
C1.6 Distinguish between the economic importance of major agricultural exports and imports.		
C1.7 Explore factors that affect food safety and producers' responsibilities to consumers.		
C3.1 Describe how technology affects the logistics of moving an agricultural commodity from producer to consumer.		
C3.2 Understand how technology influences factors such as labor, efficiency, diversity, availability, mechanization, and communication.		
C3.5 Integrate the use of technology when collecting and analyzing data.		
C13.1 State the steps of the scientific method.		

	C13.2 Analyze an agricultural problem and devise a solution based on the scientific method.		
2. Environment, Energy and Agriculture	C2.1 Identify important agricultural environmental impacts on soil, water, and air.	**HS-LS1-5:** Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy. [Clarification Statement: Emphasis is on illustrating inputs and outputs of matter and the transfer and transformation of energy in photosynthesis by plants and other photosynthesizing organisms. Examples of models could include diagrams, chemical equations, and conceptual models.	**Using Mathematics and Computational Thinking:** Mathematical and computational thinking in 9-12 builds on K-8 experiences and progresses to using algebraic thinking and analysis, a range of linear and nonlinear functions including trigonometric functions, exponentials and logarithms, and computational tools for statistical analysis to analyze, represent, and model data. Simple computational simulations are created and used based on mathematical models of basic assumptions. § Use mathematical and/or computational representations of phenomena or design solutions to support explanations. (HS-LS2-1) § Use mathematical representations of phenomena or design solutions to support and revise explanations. (HS-LS2-2) § Create or revise a simulation of a phenomenon, designed device, process, or system. (HS-LS4-6)
	C2.2 Explain current environmental challenges related to agriculture.		
	C2.3 Summarize how natural resources are used in agriculture.		
	C2.4 Compare and contrast practices for conserving renewable and nonrenewable resources.	**HS-LS1-6:** Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules. [Clarification Statement: Emphasis is on using evidence from models and simulations to support explanations.]	
	C2.5 Research how new energy sources are developed from agricultural products (e.g., gascogeneration and ethanol).		
	C4.3 Compile the modern-day uses of animals and animal by-products.		
	C3.5 Integrate the use of technology when collecting and analyzing data.	**HS-LS1-7**: Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.	
	C3.1 Describe how technology affects the logistics of moving an agricultural commodity from producer to consumer.		**Constructing Explanations and Designing Solutions**: Constructing explanations and designing solutions in 9–12 builds on K–8 experiences and progresses to explanations and designs that are supported by multiple and independent student-generated sources of evidence consistent with scientific ideas, principles, and theories.
	C3.2 Understand how technology influences factors such as labor, efficiency, diversity, availability, mechanization, and communication.	**HS-LS2-3**:Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.	
	C2.1 Identify important agricultural environmental impacts	**HS-LS2-4**: Use mathematical representations to support claims for the cycling of matter	**Engaging in Argument from Evidence**: Engaging in argument from evidence in 9–12 builds from K–8

	on soil, water, and air.	and flow of energy among organisms in an ecosystem.	experiences and progresses to using appropriate and sufficient evidence and scientific reasoning to defend and critique claims and explanations about the natural and designed world(s). Arguments may also come from current scientific or historical episodes in science.
	C2.2 Explain current environmental challenges related to agriculture.		
	C2.3 Summarize how natural resources are used in agriculture.	**HS-LS2-5**: Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.	
	C2.4 Compare and contrast practices for conserving renewable and nonrenewable resources.		
	C2.5 Research how new energy sources are developed from agricultural products (e.g., gascogeneration and ethanol).	**HS-LS2-1:** Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales.	
	C11.1 Understand the anatomy and functions of plant systems and structures.	**HS-LS2-7**. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.*	
	C11.2 Identify plant growth requirements.	**HS-LS4-6.** Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.	
	C11.3 Discern between annual, biennial, and perennial life cycles.		
	C11.4 Examine sexual and asexual reproduction in plants.		
	C11.5 Understand photosynthesis and the roles of the sun, chlorophyll, sugar, oxygen, carbon		
	dioxide, and water in the process.		
	C11.6 Summarize the respiration process in the breakdown of food and organic matter.		
	C5.1 Identify the function of cells.		
	C5.2 Analyze the anatomy and physiology of cells.		

3.Molecular Biology and Agriculture	C5.3 Understand various cell actions, such as osmosis and cell division.	**HS-LS1-1**: Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.	**Asking Questions and Defining Problems**: Asking questions and defining problems in 9-12 builds on K-8 experiences and progresses to formulating, refining, and evaluating empirically testable questions and design problems using models and simulations.
	C5.4 Compare and contrast plant and animal cells, bacteria, and viruses.		
	C7.1 Differentiate between genotype and phenotype and describe how dominant and recessive genes function.	**HS-LS1-2**: Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.	
	C7.2 Compare genetic characteristics among cattle, sheep, swine, and horse breeds.	**HS-LS1-3.** Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.	**Developing and Using Models:** Modeling in 9–12 builds on K–8 experiences and progresses to using, synthesizing, and developing models to predict and show relationships among variables between systems and their components in the natural and designed worlds.
	C7.3 Predict phenotype and genotype ratios by using a Punnett Square.	**HS-LS1-4**. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.	
	C7.4 Explain the fertilization process.		
	C7.5 Distinguish between the purpose and processes of mitosis and meiosis.	**HS-LS3-1:** Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.	**Analyzing and Interpreting Data**: Analyzing data in 9-12 builds on K-8 experiences and progresses to introducing more detailed statistical analysis, the comparison of data sets for consistency, and the use of models to generate and analyze data.
	C8.1 Identify types of nutrients required by farm animals (e.g., proteins, minerals, vitamins, carbohydrates, fats/oils, water).		
	C8.2 Analyze suitable common feed ingredients, including forages, roughages, concentrates, and supplements for ruminant, monogastric, equine, and avian digestive systems.	**HS-LS3-2:** Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.	**Engaging in Argument from Evidence**: Engaging in argument from evidence in 9-12 builds on K-8 experiences and progresses to using appropriate and sufficient evidence and scientific reasoning to defend and critique claims and explanations about the natural and designed world(s). Arguments may also come from current scientific or historical episodes in science.
	C8.3 Understand basic animal feeding guidelines and evaluate sample feeding programs for various	**HS-LS3-3**: Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.	

	species, including space requirements and economic considerations.		
		HS-LS4-3: Apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait.	
		HS-LS4-1: Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.	
4. Agriculture's relationship with technology and the natural world	C9.1 Assess the appearance and behavior of a normal, healthy animal.	**HS-LS2-6:** Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.	**Using Mathematics and Computational Thinking:** Mathematical and computational thinking in 9-12 builds on K-8 experiences and progresses to using algebraic thinking and analysis, a range of linear and nonlinear functions including trigonometric functions, exponentials and logarithms, and computational tools for statistical analysis to analyze, represent, and model data. Simple computational simulations are created and used based on mathematical models of basic assumptions. § Use mathematical and/or computational representations of phenomena or design solutions to support explanations. (HS-LS2-1) § Use mathematical representations of phenomena or design solutions to support and revise explanations. (HS-LS2-2) § Create or revise a simulation of a phenomenon, designed device, process, or system. (HS-LS4-6)
	C9.2 Explain the ways in which housing, sanitation, and nutrition influence animal health and behavior.		
	C9.3 Analyze the causes and controls of common animal diseases.	**HS-ETS1-1:** Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.	
	C9.4 Summarize effective techniques for controlling parasites and explain why controlling parasites is important.	**HS-ETS1-2**: Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.	
	C9.5 Research the legal requirements for the procurement, storage, methods of application, and withdrawal times of animal medications, and know proper equipment handling and disposal techniques.	**HS-ETS1-3**: Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.	
	C11.1 Understand the anatomy and functions of plant systems and structures.		
	C11.2 Identify plant growth requirements.		

	C11.3 Discern between annual, biennial, and perennial life cycles.		**Constructing Explanations and Designing Solutions**: Constructing explanations and designing solutions in 9–12 builds on K–8 experiences and progresses to explanations and designs that are supported by multiple and independent student-generated sources of evidence consistent with scientific ideas, principles, and theories.
	C11.4 Examine sexual and asexual reproduction in plants.		
	C11.5 Understand photosynthesis and the roles of the sun, chlorophyll, sugar, oxygen, carbon dioxide, and water in the process.		**Engaging in Argument from Evidence**: Engaging in argument from evidence in 9–12 builds from K–8 experiences and progresses to using appropriate and sufficient evidence and scientific reasoning to defend and critique claims and explanations about the natural and designed world(s). Arguments may also come from current scientific or historical episodes in science.
	C11.6 Summarize the respiration process in the breakdown of food and organic matter.		
	F5.1 Explain how basic soil science and water principles affect plant growth.		
	F5.2 Illustrate basic irrigation design and installation methods.		
	F5.3 Prepare and amend soils, implement soil conservation methods, and compare results.		
	F5.4 Research major issues related to water sources and water quality.		
	F5.5 Explain the components of soilless media and test the use of those media in various types of containers.		
	F9.1 Use different types of containers and demonstrate how to maintain growing containers in controlled environments.		
	F9.2 Operate and maintain selected hand and power equipment safely and appropriately.		
	F9.3 Select proper tools for specific horticultural		

	jobs.		
	F9.4 Install landscape components and electrical, land, and water features.		
	F10.1 Utilize terms associated with landscape and design in appropriate context.		
	F10.2 Produce a residential design, including how to render design to scale using design technology and principles.		
	F10.3 Use proper landscape planting and maintenance practices.		
	F10.4 Prune ornamental shrubs, trees, and fruit trees.		

F. ***STUDENT EVALUATION STANDARDS*** ***(List the criteria on which students will be graded in the course. Give the approximate weight for each of the grading criteria in determining the student's grade, such as tests, homework, labs, class participation. Also indicate the weight given to quarter grades and semester final in tabulating the final grade.)***

Assignments and labs	60%
Assessments	30%
FFA Participation	10%

G. ***SUGGESTED INSTRUCTIONAL ACTIVITIES*** ***(This item is optional and is not required of the course of study. If it is completed, it should include teacher and/or student activities such as field trips, demonstrations, speakers, or special procedures that will assist the students in learning the course objectives.)***

Prepared by Elizabeth Bledsoe

Kern High School District
Office of Instruction

DPC#: _5527_____
Approved by Board: _____

District Wide Course of Study Title:

Ag Mechanics 1

A. *COURSE INFORMATION*

Grade Level:	9-10
Length of Course:	One Year
Maximum Credit:	10
Type:	Misc.
Recommendation for Enrollment:	None

B. *COURSE DESCRIPTION* *(Include a brief explanation of the course; mention any prerequisites, including standardized test scores; and indicate whether the course satisfies a specific gradation requirement.)*

Ag Mechanics I (Beginning Ag Mechanics) is a course designed to fulfill the student's elective requirements from KHSD. The course is a year long course which is designed to introduce the student to basic shop skill necessary to develop a well rounded agricultural mechanics program. The course is also a pre-requisite to Ag Mechanics 2.

C. *INSTRUCTIONAL MATERIALS* *(List the basic text – include title, author, and copyright – and other essential supplementary materials or instructional resources/materials used in the course.)*

Basic Text:

Agriculture Mechanics, Fumndaentals and Applilcation 5th Edition, Cooper, 1996
2nd and 5th editions acceptable

D. *SUPPLEMENTARY INSTRUCTIONAL MATERIALS* *(List the basic text – include title, author, and copyright – and other essential supplementary materials or instructional resources/materials used in the course.)*

Mechanics in Agriculture, Phipps, 1977.

Farm Shop, Wakeman and McCoy, McMillan.

Shop Work on the Farm, Jones, McGraw Hill, 1973.

Fundamentals of Service Welding, by John Deere, published by John Deere.

Wiring Simplified, H.P. Richter, et. al.

Leveling and Land Management Practices for Agriculture, Agriculture Education Dept., University of Arizona or Hobar Publications.

E. ***BRIEF OUTLINE OF COURSE CONTENT***

A. FFA – 1 week
1. History, Leadership, Involvement
2. SAEs

B. Exploring Careers in Agricultural Mechanics – 1 week
1. Mechanics in the World of Agriculture
2. Career Options in Ag. Mechanics

C. Using the Ag. Mech. Shop – 4 weeks
1. Shop Orientation and Procedures
2. Personal Safety in Ag. Mech.
3. Reducing Hazards in Ag. Mech.
4. Shop Clean-up and Orientation
5. Measurements

D. Woodworking– 3 weeks
1. Hand tools, fasteners and hardware
2. Layout, tools, measurement and procedures
3. Selecting, cutting, and shaping wood
4. Fastening wood
5. Finishing wood
6. Woodworking with power tools
7. Preparing wood and metal for painting
8. Selecting and applying coating materials

E. Tool Fitting – 1 week
1. Repairing and reconditioning tools
2. Sharpening tools

F. Metal Working – 3 weeks
1. Hand tools, fasteners and hardware
2. Layout, tools and procedures
3. Selecting, cutting, and shaping metal
4. Fastening metal
5. Finishing metal

6. Identifying, marking, cutting, and bending metal
7. Fastening metal
8. Metal working with power tools
9. Preparing metal for painting
10. Selecting and applying coating materials

G. Gas Heating, Cutting, Brazing and Welding – 3 weeks
1. Using Oxyacetylene
2. Gas welding joints
3. Brazing joints
4. Oxy-fuel cutting

H. Electric Welding & Cutting Processes – 5 weeks
1. Selecting and using arc welding
2. SMAW welding mild steel
3. SMAW welding positions
4. SMAW welding joints
5. MIG welding
6. TIG welding
7. Plasma Arc Cutting

I. Electricity – 3 weeks
1. Electrical principles and wiring material
2. Installing branch circuits

J. Plumbing – 3 weeks
1. Plumbing materials and tools
2. Irrigation and sprinkler systems
3. Household plumbing

K. Concrete and Masonry – 1 week
1. Concrete and masonry

L. Rope Work – 1 week
1. Knots and hitches

M. Surveying – 1 week
1. Surveying skill
2. GPS and laser leveling

N. Construction of Personal Projects – 8 weeks
1. Project selection and planning
2. Bill of material and cost estimation
3. Project construction

F. BEHAVIORAL OBJECTIVES FOR Beginning Ag Mechanics (standards)

FOUNDATION STANDARDS

1.0 Academics - Students understand the academic content required for entry into postsecondary education and employment in the Agriculture and Natural Resources sector. (The standards listed below retain in parentheses the numbering as specified in the mathematics, science, and history–social science content standards adopted by the State Board of Education.)

1.1 Mathematics : Specific applications of Algebra I standards (grades eight through twelve):
(10.0) Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.
(12.0) Students simplify fractions with polynomials in the numerator and denominator by factoring both and reducing them to the lowest terms.
(13.0) Students add, subtract, multiply, and divide rational expressions and functions. Students solve both computationally and conceptually challenging problems by using these techniques.
(15.0) Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.
Specific applications of Geometry standards (grades eight through twelve):
(8.0) Students know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures.
(10.0) Students compute areas of polygons, including rectangles, scalene triangles, equilateral triangles, rhombi, parallelograms, and trapezoids.
(11.0) Students determine how changes in dimensions affect the perimeter, area, and volume of common geometric figures and solids.
(12.0) Students find and use measures of sides and of interior and exterior angles of triangles and polygons to classify figures and solve problems.
Specific applications of Probability and Statistics standards (grades eight through twelve):
(8.0) Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.
1.2 Science : Specific applications of Investigation and Experimentation standards (grades nine through twelve):
(1.a) Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.
(1.c) Identify possible reasons for inconsistent results, such as sources of error or uncontrolled conditions.
(1.d) Formulate explanations by using logic and evidence.
(1.f) Distinguish between hypothesis and theory as scientific terms.
(1.l) Analyze situations and solve problems that require combining and applying concepts from more than one area of science.
1.3 History–Social Science : Specific applications of Principles of Economics standards (grade twelve):
(12.2.2) Discuss the effects of changes in supply and/or demand on the relative scarcity, price, and quantity of particular products.
(12.2.3) Explain the roles of property rights, competition, and profit in a market economy.
(12.2.5) Understand the process by which competition among buyers and sellers determines a market price.
(12.2.6) Describe the effect of price controls on buyers and sellers.
(12.2.7) Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products.
(12.2.10) Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.
(12.4) Students analyze the elements of the U.S. labor market in a global setting.
(12.4.3) Discuss wage differences among jobs and professions, using the laws of demand and supply and the concept of productivity.
2.0 Communications: Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts. (The standards listed below retain in parentheses the numbering as specified in the English– language arts content standards adopted by the State Board of Education.)
2.1 Reading: Specific applications of Reading Comprehension standards (grades nine and ten):
(2.3) Generate relevant questions about readings on issues that can be researched.

(2.6) Demonstrate use of sophisticated learning tools by following technical directions (e.g., those found with graphic calculators and specialized software programs and in access guides to World Wide Web sites on the Internet).
(2.7) Critique the logic of functional documents by examining the sequence of information and procedures in anticipation of possible reader misunderstandings.
(2.8) Evaluate the credibility of an author's argument or defense of a claim by critiquing the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text (e.g., in professional journals, editorials, political speeches, primary source material).

Specific applications of Reading Comprehension standards (grades eleven and twelve):

(2.3) Verify and clarify facts presented in other types of expository texts by using a variety of consumer, workplace, and public documents.
(2.4) Make warranted and reasonable assertions about the author's arguments by using elements of the text to defend and clarify interpretations.

2.2 Writing: Specific applications of Writing Strategies and Applications standards (grades 9-10)

(1.3) Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.
(2.6) Write technical documents (e.g., a manual on rules of behavior for conflict resolution, procedures for conducting a meeting, minutes of a meeting):

a. Report information and convey ideas logically and correctly.
b. Offer detailed and accurate specifications.
c. Include scenarios, definitions, and examples to aid comprehension (e.g., troubleshooting guide).
d. Anticipate readers' problems, mistakes, and misunderstandings.

Specific applications of Writing Strategies and Applications standards (grades eleven and twelve):

(2.5) Write job applications and résumés:

a. Provide clear and purposeful information and address the intended audience appropriately.
b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension.
c. Modify the tone to fit the purpose and audience.
d. Follow the conventional style for that type of document (e.g., résumé, memorandum) and use page formats, fonts, and spacing that contribute to the readability and impact of the document.

2.3 Written and Oral English Language Conventions : Specific applications of English Language Conventions standards (grades eleven and twelve):

(1.1) Demonstrate control of grammar, diction, and paragraph and sentence structure and an understanding of English usage.
(1.2) Produce legible work that shows accurate spelling and correct punctuation and capitalization.

2.4 Listening and Speaking: Specific applications of Listening and Speaking Strategies and Applications standards (grades nine and ten):

(1.1) Formulate judgments about the ideas under discussion and support those judgments with convincing evidence.
(1.7) Use props, visual aids, graphs, and electronic media to enhance the appeal and accuracy of presentations.
(2.2) Deliver expository presentations:

a. Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.
c. Make distinctions between the relative value and significance of specific data, facts, and ideas.
d. Include visual aids by employing appropriate technology to organize and display information on charts, maps, and graphs.
e. Anticipate and address the listener's potential misunderstandings, biases, and expectations.
f. Use technical terms and notations accurately.

(2.3) Apply appropriate interviewing techniques:

a. Prepare and ask relevant questions.
b. Make notes of responses.

c. Use language that conveys maturity, sensitivity, and respect.
d. Respond correctly and effectively to questions.
e. Demonstrate knowledge of the subject or organization.
f. Compile and report responses.
g. Evaluate the effectiveness of the interview.

Specific applications of Listening and Speaking Strategies and Applications standards (grades 11-12)

(1.8) Use effective and interesting language, including:
a. Informal expressions for effect
b. Standard American English for clarity
c. Technical language for specificity
c. Use the selected media skillfully, editing appropriately and monitoring for quality.
d. Test the audience's response and revise the presentation accordingly

3.0 Career Planning and Management

Students understand how to make effective decisions, use career information, and manage personal career plans:
3.1 Know the personal qualifications, interests, aptitudes, information, and skills necessary to succeed in careers.
3.2 Understand the scope of career opportunities and know the requirements for education, training, and licensure.
3.3 Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.
3.4 Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.
3.5 Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.
3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio.

4.0 Technology : Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments:

4.1 Understand past, present, and future technological advances as they relate to a chosen pathway.
4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.
4.3 Understand the influence of current and emerging technology on selected segments of the economy.
4.4 Understand geographic information systems (G.I.S.).
4.5 Determine the validity of the content and evaluate the authenticity, reliability, and bias of electronic and other resources.
4.6 Differentiate among, select, and apply appropriate tools and technology.

5.0 Problem Solving and Critical Thinking : Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, and problem-solving techniques:
5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.
5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.
5.3 Use critical thinking skills to make informed decisions and solve problems.

6.0 Health and Safety : Students understand health and safety policies, procedures, regulations, and practices, including the use of equipment and handling of hazardous materials:
6.1 Know policies, procedures, and regulations regarding health and safety in the workplace, including employers' and employees' responsibilities.
6.2 Understand critical elements of health and safety practices related to storing, cleaning, and maintaining tools, equipment, and supplies.
6.3 Understand how to locate important information on a material safety data sheet.
6.4 Maintain safe and healthful working conditions.
6.5 Use tools and machines safely and appropriately.

6.6 Know how to both prevent and respond to accidents in the agricultural industry.

7.0 Responsibility and Flexibility : Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings:

7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.

7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.

7.3 Understand the need to adapt to varied roles and responsibilities.

7.4 Understand that individual actions can affect the larger community.

7.5 Understand the importance of time management to fulfill responsibilities.

7.6 Know how to apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.

8.0 Ethics and Legal Responsibilities: Students understand professional, ethical, and legal behavior consistent with applicable laws, regulations, and organizational norms:

8.1 Know the major local, district, state, and federal regulatory agencies and entities that affect the industry and how they enforce laws and regulations.

8.2 Understand the concept and application of ethical and legal behavior consistent with workplace standards.

8.3 Understand the role of personal integrity and ethical behavior in the workplace.

8.4 Understand how to access, analyze, and implement quality assurance information.

9.0 Leadership and Teamwork : Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution:

9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.

9.2 Understand the ways in which preprofessional associations, such as the Future Farmers of America (FFA), and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.

9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.

9.4 Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.

9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.

9.6 Understand leadership, cooperation, collaboration, and effective decision-making skills applied in group or team activities, including the student organization.

10.0 Technical Knowledge and Skills : Students understand the essential knowledge and skills common to all pathways in the Agriculture and Natural Resources sector:

10.1 Understand the aims, purposes, history, and structure of the FFA student organization, and know the opportunities it makes available.

10.2 Manage and actively engage in a career-related, supervised agricultural experience.

10.3 Understand the importance of maintaining and completing the California Agricultural Record Book.

10.4 Maintain and troubleshoot equipment used in the agricultural industry.

11.0 Demonstration and Application : Students demonstrate and apply the concepts contained in the foundation and pathway standards.

Agricultural Mechanics Pathway: The Agricultural Mechanics Pathway prepares students for careers related to the construction, operation, and maintenance of equipment used by the agriculture industry. Basic agricultural mechanics skills and safety, standards B1.0 through B8.0, cover woodworking, electrical systems, plumbing, cold metal work, concrete, and welding technology. Advanced topics, standards B9.0 through B12.0, deal with metal fabrication, small engines, agriculture power and technology, and agriculture construction.

B1.0 Students understand personal and group safety:

B1.1 Practice the rules for personal and group safety while working in an agricultural mechanics environment.

B1.2 Know the relationship between accepted shop management procedures and a safe working environment.

B1.3 Know how to safely secure loads on a variety of vehicles.

B2.0 Students understand the principles of basic woodworking:

B2.1 Know how to identify common wood products, lumber types, and sizes.

B2.2 Know how to calculate board feet, lumber volume, and square feet.

B2.3 Know how to identify, select, and implement basic fastening systems.

B2.4 Complete a woodworking project, including interpreting a plan, developing a bill of materials and cutting list, selecting materials, shaping, joining, and finishing.

B3.0 Students understand the basic electricity principles and wiring practices commonly used in agriculture:

B3.1 Understand the relationship between voltage, amperage, resistance, and power in single-phase alternating current (AC) circuits.

B3.2 Know how to use proper electrical test equipment for AC and direct current (DC).

B3.3 Analyze and correct basic circuit problems (e.g., open circuits, short circuits, incorrect grounding).

B3.4 Understand proper basic electrical circuit and wiring techniques with nonmetallic cable and conduit as defined by the National Electric Code.

B3.5 Interpret basic agricultural electrical plans.

B4.0 Students understand plumbing system practices commonly used in agriculture:

B4.1 Know basic plumbing fitting skills with a variety of materials, such as copper, PVC (polyvinyl chloride), steel, polyethylene, and ABS (acrylonitrile butadiene styrene).

B4.2 Understand the environmental influences on plumbing system choices (e.g., filter systems, water disposal).

B4.3 Know how various plumbing and irrigation systems are used in agriculture.

B4.4 Complete a plumbing project, including interpreting a plan, developing a bill of materials and cutting list, selecting materials, joining, and testing.

B5.0 Students understand agricultural cold metal processes:

B5.1 Know how to identify common metals, sizes, and shapes.

B5.2 Know basic tool-fitting skills.

B5.3 Know layout skills.

B5.4 Know basic cold metal processes (e.g., shearing, cutting, drilling, threading, bending.).

B5.5 Complete a cold metal project, including interpreting a plan, developing a bill of materials, selecting materials, shaping, fastening, and finishing.

B6.0 Students understand concrete and masonry practices commonly used in agriculture:

B6.1 Understand how to accurately calculate volume, materials needed, and project costs for a concrete or masonry project.

B6.2 Know proper bed preparation, concrete forms layout, and construction.

B6.3 Complete a concrete or masonry project, including developing a bill of materials, assembling, mixing, placing, and finishing.

B7.0 Students understand oxy-fuel cutting and welding:

B7.1 Understand the role of heat and oxidation in the cutting process.

B7.2 Know how to properly set up, adjust, shut down, and maintain an oxy-fuel system.

B7.3 Know how to flame-cut metal with an oxy-fuel cutting torch.

B7.4 Know how to fusion-weld mild steel with and without filler rod by using oxy-fuel equipment.

B7.5 Know basic repair skills using a variety of techniques, such as brazing or hard surfacing.

B8.0 Students understand electric arc welding processes:

B8.1 Know how to select, properly adjust, safely employ, and maintain appropriate welding equipment (e.g., gas metal arc welding, shielded metal arc welding, gas tungsten arc welding).

B8.2 Apply gas metal arc welding, shielded metal arc welding, or flux core arc welding processes to fusion-weld mild steel with appropriate welding electrodes and related equipment.

B8.3 Weld a variety of joints in various positions.

B8.4 Know how to read welding symbols and plans, select electrodes, fit-up joints, and control heat and distortion.

B9.0 Students understand advanced metallurgy principles and fabrication techniques:

B9.1 Understand metallurgy principles, including distortion, hardening, tempering, and annealing.

B9.2 Operate and maintain various arc welding and cutting systems safely and appropriately.

B9.3 Operate and maintain fabrication tools and equipment safely and appropriately.

B9.4 Understand how to design project plans by using mechanical drawing techniques.

B9.5 Understand how to finish a metal project by implementing proper sequencing.

B9.6 Know how to manipulate and finish metal by using a variety of machines and techniques (e.g., lathe, mill, CNC plasma, shears, press break).

B9.7 Construct a welding project (using any electric welding process, appropriate products, joints, and positions), including interpreting a plan, developing a bill of materials, selecting materials, and developing a clear and concise fabrication contract.

B10.0 Students understand small and compact engines:

B10.1 Understand engine theory for both two- and four-stroke cycle engines.

B10.2 Know different types of small engines and their applications.

B10.3 Know small engine parts and explain the various systems (e.g., fuel, ignition, compression, cooling, lubrication systems).

B10.4 Know how to troubleshoot and solve problems with small engines.

B10.5 Know how to disassemble, inspect, adjust, and reassemble a small engine.

B10.6 Know how to look up parts, apply repair and maintenance recommendations from a repair manual, and complete appropriate forms, including work orders.

B11.0 Students understand the principles and applications of various engines and machinery used in agriculture:

B11.1 Understand how to identify common agricultural machinery.

B11.2 Operate and maintain equipment safely and efficiently.

B11.3 Know the various types of engines found on agricultural machinery and understand the theory and safe operation of their systems (e.g., cooling, electrical, fuel).

B11.4 Know the theory and operation of mobile hydraulic systems and power take-off systems.

B11.5 Troubleshoot common problems with engines and agricultural equipment.

B11.6 Understand the theory and operation of 12-volt DC electronic and electrical systems (e.g., circuit design, starting, charging, and safety circuits).

B12.0 Students understand land measurement and construction techniques commonly used in agriculture:

B12.1 Understand common surveying techniques used in agriculture (e.g., leveling, land measurement, building layout).

B12.2 Know how to draw and interpret architectural plans.

B12.3 Know how to install single- and three-phase wiring and control systems found in agricultural structures, pumps, and irrigation systems.

B12.4 Install plumbing in agricultural structures (e.g., potable water, sewer, irrigation).

B12.5 Form, place, and finish concrete or masonry (e.g., concrete block).

B12.6 Understand how to construct agricultural structures by using wood framing and steel framing systems (e.g., barns, shops, greenhouses, animal structures).

B12.7 Develop clear and concise agricultural construction contracts.

G. ASSESSMENT PROCEDURES

The criteria on which students will be graded in the course will be based on tests and student evaluations which include:

1. Essay type or subjective tests	15%
2. Objective tests	10%

3. Actual test of ability in shop skills	15%
4. Shop performance and cleanup	10%
5. Project completion and quality	40%
6. Participation in co-curricular activities (FFA)	10%

The following range is used to determine what grade a student will receive at the quarter and semester.

A	90%	-	100%
B	80%	-	89%
C	70%	-	79%
D	60%	-	69%
F	0%	-	59%

Kern High School District
Office of Instruction

DPC#: _____
Approved by Board: _____

District Wide Course of Study Title:

Agriculture Engineering & Fabrication

A. COURSE INFORMATION

Grade Level: 11-12

Length of Course: Two Years

Maximum Credit: 20

Type: Elective
Recommendation for Enrollment:

- Completion of Ag Mechanics I
- Completion to Intro to Ag Welding with a "C" or better
- Teacher Approval

B. COURSE DESCRIPTION *(Include a brief explanation of the course; mention any prerequisites, including standardized test scores; and indicate whether the course satisfies a specific gradation requirement.)*

This advanced course will teach students specialized skills for the construction, maintenance, repair and service of agricultural equipment. This class will teach the student to fabricate and adapt various pieces of machinery by cutting, forming, and welding different types of metals. Examples of equipment includes: tractors, trailers, processing equipment, tilling equipment, and others. This course integrates math and physical applications to applied principles within the everyday work world. The course curriculum is built around the California Department of Education Career Preparation Standards, Agriculture Model Curriculum Guide, Tech Prep Career Path Standards, and Industry standards.

C. INSTRUCTIONAL MATERIALS *(List the basic text – include title, edition, author, and copyright – and other essential supplementary materials or instructional resources/materials used in the course.)*

Welding: Principles and Applications, 4th Edition, By Larry Jeffus

Welding Skills, 4th Edition, By R.T. Miller and B.J. Moniz

Metal Fabrication: Technology of Agriculture, 2004, By Larry Jeffus

D. ***COURSE OUTLINE*** ***(List the major content areas of the course an divide them according to the semester in which they fall. Designate the approximate amount of time given to each of the content areas. Suggested length: one page.)***

Unit of Instruction	Hours
Shop Orientation	5
• Review Course Outline	
• Discuss welding shop safety procedure	
• Demonstrate oxy-acetylene equipment	
• Demonstration electric arc equipment	
• Discuss shop clean-up procedures	
Shop Safety	5
• Terminology	
• Safe Use of Equipment	
• Student Practice and Demonstration	
FFA, SAE & Career	15
• FFA	
• Leadership opportunities	
• Competitions	
• Record Keeping	
• SAE (Supervised Agriculture Experience)	
• Project	
• Ownership	
• Non-ownership	
• Proficiencies	
Career Preparation Standards	10
• Career Opportunities in Welding	
Measurement Review	5
• Terminology	
• Reading a ruler	
• Area, Perimeter, and circumference calculations	
• Understanding fractions	
• Micrometers and Dial calipers	
SMAW/Stick Welding Review	15
• Rod Types	
• Joints	
• Positions	
• Machines	
• Defects/Quality Control	

Review of Oxyfuel Cutting 5

- Equipment Selection
- Setup the torch
- Cutting
- Practical Assignment

Gas Metal Arc-Advanced MIG Welding 20

- Equipment and techniques for types of metals
- Positions
- Joints
- Wire Types for particular applications

Advanced TIG Welding 35

- Equipment and Selection
- Machine Setup
- Welding Techniques
- Demonstration
- Mild steel, Stainless Steel, and Aluminum

Special Processes & Welding Certifications 10

- Plasma
- CNC
- Air ARC
- Cutting and Gouging
- Hardfacing
- Special Rods & Techniques
- Intro to all Welding Certifications

Individual Project Planning & Construction 55

- Drawing and Sketching
- Steel making and standard
- Steel weight and cost calculations
- Student Selected project
- Individual Instruction as related to the selected project

Total Hours 180

E. ***COURSE OBJECTIVES FOR*** ***(The objectives area to include the specific, major skills or understandings which students will be able to demonstrate or acquire instruction in the course. A minimum of eight to twelve objectives should be identified for each semester of the course. Each objective is to be clearly linked to the Board adopted standards for the course or subject area; indicate the link by placing the number of the appropriate standards (s) after each objective. Minimum length: one page)***

Behavior Objective for Agriculture Engineering & Fabrication

FOUNDATION STANDARDS

1.0 Academics - Students understand the academic content required for entry into postsecondary education and employment in the Agriculture and Natural Resources sector. (The standards listed below retain in parentheses the numbering as specified in the mathematics, science, and history–social science content standards adopted by the State Board of Education.)

1.1 Mathematics : Specific applications of Algebra I standards (grades eight through twelve):

(10.0) Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.

(12.0) Students simplify fractions with polynomials in the numerator and denominator by factoring both and reducing them to the lowest terms.

(13.0) Students add, subtract, multiply, and divide rational expressions and functions. Students solve both computationally and conceptually challenging problems by using these techniques.

(15.0) Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

Specific applications of Geometry standards (grades eight through twelve):

(8.0) Students know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures.

(10.0) Students compute areas of polygons, including rectangles, scalene triangles, equilateral triangles, rhombi, parallelograms, and trapezoids.

(11.0) Students determine how changes in dimensions affect the perimeter, area, and volume of common geometric figures and solids.

(12.0) Students find and use measures of sides and of interior and exterior angles of triangles and polygons to classify figures and solve problems.

Specific applications of Probability and Statistics standards (grades eight through twelve):

(8.0) Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

1.2 Science : Specific applications of Investigation and Experimentation standards (grades nine through twelve):

(1.a) Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.

(1.c) Identify possible reasons for inconsistent results, such as sources of error or uncontrolled conditions.

(1.d) Formulate explanations by using logic and evidence.

(1.f) Distinguish between hypothesis and theory as scientific terms.

(1.l) Analyze situations and solve problems that require combining and applying concepts from more than one area of science.

1.3 History–Social Science : Specific applications of Principles of Economics standards (grade twelve):

(12.2.2) Discuss the effects of changes in supply and/or demand on the relative scarcity, price, and quantity of particular products.

(12.2.3) Explain the roles of property rights, competition, and profit in a market economy.

(12.2.5) Understand the process by which competition among buyers and sellers determines a market price.

(12.2.6) Describe the effect of price controls on buyers and sellers.

(12.2.7) Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products.

(12.2.10) Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.

(12.4) Students analyze the elements of the U.S. labor market in a global setting.

(12.4.3) Discuss wage differences among jobs and professions, using the laws of demand and supply and the concept of productivity.

2.0 Communications: Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts. (The standards listed below retain in parentheses the numbering as specified in the English– language arts content standards adopted by the State Board of

Education.)

2.1 Reading: Specific applications of Reading Comprehension standards (grades nine and ten):

(2.3) Generate relevant questions about readings on issues that can be researched.

(2.6) Demonstrate use of sophisticated learning tools by following technical directions (e.g., those found with graphic calculators and specialized software programs and in access guides to World Wide Web sites on the Internet).

(2.7) Critique the logic of functional documents by examining the sequence of information and procedures in anticipation of possible reader misunderstandings.

(2.8) Evaluate the credibility of an author's argument or defense of a claim by critiquing the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text (e.g., in professional journals, editorials, political speeches, primary source material).

Specific applications of Reading Comprehension standards (grades eleven and twelve):

(2.3) Verify and clarify facts presented in other types of expository texts by using a variety of consumer, workplace, and public documents.

(2.4) Make warranted and reasonable assertions about the author's arguments by using elements of the text to defend and clarify interpretations.

2.2 Writing: Specific applications of Writing Strategies and Applications standards (grades 9-10)

(1.3) Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.

(2.6) Write technical documents (e.g., a manual on rules of behavior for conflict resolution, procedures for conducting a meeting, minutes of a meeting):

a. Report information and convey ideas logically and correctly.

b. Offer detailed and accurate specifications.

c. Include scenarios, definitions, and examples to aid comprehension (e.g., troubleshooting guide).

d. Anticipate readers' problems, mistakes, and misunderstandings.

Specific applications of Writing Strategies and Applications standards (grades eleven and twelve):

(2.5) Write job applications and résumés:

a. Provide clear and purposeful information and address the intended audience appropriately.

b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension.

c. Modify the tone to fit the purpose and audience.

d. Follow the conventional style for that type of document (e.g., résumé, memorandum) and use page formats, fonts, and spacing that contribute to the readability and impact of the document.

2.3 Written and Oral English Language Conventions : Specific applications of English Language Conventions standards (grades eleven and twelve):

(1.1) Demonstrate control of grammar, diction, and paragraph and sentence structure and an understanding of English usage.

(1.2) Produce legible work that shows accurate spelling and correct punctuation and capitalization.

2.4 Listening and Speaking: Specific applications of Listening and Speaking Strategies and Applications standards (grades nine and ten):

(1.1) Formulate judgments about the ideas under discussion and support those judgments with convincing evidence.

(1.7) Use props, visual aids, graphs, and electronic media to enhance the appeal and accuracy of presentations.

(2.2) Deliver expository presentations:

a. Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.

c. Make distinctions between the relative value and significance of specific data, facts, and ideas.

d. Include visual aids by employing appropriate technology to organize and display information on charts, maps, and graphs.

e. Anticipate and address the listener's potential misunderstandings, biases, and expectations.

f. Use technical terms and notations accurately.

(2.3) Apply appropriate interviewing techniques:

a. Prepare and ask relevant questions.

b. Make notes of responses.

c. Use language that conveys maturity, sensitivity, and respect.
d. Respond correctly and effectively to questions.
e. Demonstrate knowledge of the subject or organization.
f. Compile and report responses.
g. Evaluate the effectiveness of the interview.

Specific applications of Listening and Speaking Strategies and Applications standards (grades 11-12)

(1.8) Use effective and interesting language, including:
a. Informal expressions for effect
b. Standard American English for clarity
c. Technical language for specificity
c. Use the selected media skillfully, editing appropriately and monitoring for quality.
d. Test the audience's response and revise the presentation accordingly

3.0 Career Planning and Management

Students understand how to make effective decisions, use career information, and manage personal career plans:
3.1 Know the personal qualifications, interests, aptitudes, information, and skills necessary to succeed in careers.
3.2 Understand the scope of career opportunities and know the requirements for education, training, and licensure.
3.3 Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.
3.4 Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.
3.5 Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.
3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio.

4.0 Technology : Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments:

4.1 Understand past, present, and future technological advances as they relate to a chosen pathway.
4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.
4.3 Understand the influence of current and emerging technology on selected segments of the economy.
4.4 Understand geographic information systems (G.I.S.).
4.5 Determine the validity of the content and evaluate the authenticity, reliability, and bias of electronic and other resources.
4.6 Differentiate among, select, and apply appropriate tools and technology.

5.0 Problem Solving and Critical Thinking : Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, and problem-solving techniques:
5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.
5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.
5.3 Use critical thinking skills to make informed decisions and solve problems.

6.0 Health and Safety : Students understand health and safety policies, procedures, regulations, and practices, including the use of equipment and handling of hazardous materials:
6.1 Know policies, procedures, and regulations regarding health and safety in the workplace, including employers' and employees' responsibilities.
6.2 Understand critical elements of health and safety practices related to storing, cleaning, and maintaining tools, equipment, and supplies.
6.3 Understand how to locate important information on a material safety data sheet.
6.4 Maintain safe and healthful working conditions.
6.5 Use tools and machines safely and appropriately.
6.6 Know how to both prevent and respond to accidents in the agricultural industry.

7.0 Responsibility and Flexibility : Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings:

7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.
7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.
7.3 Understand the need to adapt to varied roles and responsibilities.
7.4 Understand that individual actions can affect the larger community.
7.5 Understand the importance of time management to fulfill responsibilities.
7.6 Know how to apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.

8.0 Ethics and Legal Responsibilities: Students understand professional, ethical, and legal behavior consistent with applicable laws, regulations, and organizational norms:
8.1 Know the major local, district, state, and federal regulatory agencies and entities that affect the industry and how they enforce laws and regulations.
8.2 Understand the concept and application of ethical and legal behavior consistent with workplace standards.
8.3 Understand the role of personal integrity and ethical behavior in the workplace.
8.4 Understand how to access, analyze, and implement quality assurance information.

9.0 Leadership and Teamwork : Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution:
9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.
9.2 Understand the ways in which preprofessional associations, such as the Future Farmers of America (FFA), and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.
9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.
9.4 Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.
9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.
9.6 Understand leadership, cooperation, collaboration, and effective decision-making skills applied in group or team activities, including the student organization.

10.0 Technical Knowledge and Skills : Students understand the essential knowledge and skills common to all pathways in the Agriculture and Natural Resources sector:
10.1 Understand the aims, purposes, history, and structure of the FFA student organization, and know the opportunities it makes available.
10.2 Manage and actively engage in a career-related, supervised agricultural experience.
10.3 Understand the importance of maintaining and completing the California Agricultural Record Book.
10.4 Maintain and troubleshoot equipment used in the agricultural industry.

11.0 Demonstration and Application : Students demonstrate and apply the concepts contained in the foundation and pathway standards.

Agricultural Mechanics Pathway: The Agricultural Mechanics Pathway prepares students for careers related to the construction, operation, and maintenance of equipment used by the agriculture industry. Basic welding skills and safety, standards B1.0, B.50, B.7, B8.0, B9.0, cold metal work and welding technology.
B1.0 Students understand personal and group safety:
- B1.1 Practice the rules for personal and group safety while working in an agricultural mechanics environment.
- B1.2 Know the relationship between accepted shop management procedures and a safe working environment.
- B1.3 Know how to safely secure loads on a variety of vehicles.
- , shaping, joining, and finishing.

B5.0 Students understand agricultural cold metal processes:
- B5.1 Know how to identify common metals, sizes, and shapes.
- B5.2 Know basic tool-fitting skills.
- B5.3 Know layout skills.

B5.4 Know basic cold metal processes (e.g., shearing, cutting, drilling, threading, bending.).
B5.5 Complete a cold metal project, including interpreting a plan, developing a bill of materials, selecting materials, shaping, fastening, and finishing.

B7.0 Students understand oxy-fuel cutting and welding:
B7.1 Understand the role of heat and oxidation in the cutting process.
B7.2 Know how to properly set up, adjust, shut down, and maintain an oxy-fuel system.
B7.3 Know how to flame-cut metal with an oxy-fuel cutting torch.
B7.4 Know how to fusion-weld mild steel with and without filler rod by using oxy-fuel equipment.
B7.5 Know basic repair skills using a variety of techniques, such as brazing or hard surfacing.

B8.0 Students understand electric arc welding processes:
B8.1 Know how to select, properly adjust, safely employ, and maintain appropriate welding equipment (e.g., gas metal arc welding, shielded metal arc welding, gas tungsten arc welding).
B8.2 Apply gas metal arc welding, shielded metal arc welding, or flux core arc welding processes to fusion-weld mild steel with appropriate welding electrodes and related equipment.
B8.3 Weld a variety of joints in various positions.
B8.4 Know how to read welding symbols and plans, select electrodes, fit-up joints, and control heat and distortion.

B9.0 Students understand advanced metallurgy principles and fabrication techniques:
B9.1 Understand metallurgy principles, including distortion, hardening, tempering, and annealing.
B9.2 Operate and maintain various arc welding and cutting systems safely and appropriately.
B9.3 Operate and maintain fabrication tools and equipment safely and appropriately.
B9.4 Understand how to design project plans by using mechanical drawing techniques.
B9.5 Understand how to finish a metal project by implementing proper sequencing.
B9.6 Know how to manipulate and finish metal by using a variety of machines and techniques (e.g., lathe, mill, CNC plasma, shears, press break).
B9.7 Construct a welding project (using any electric welding process, appropriate products, joints, and positions), including interpreting a plan, developing a bill of materials, selecting materials, and developing a clear and concise fabrication contract.

F. ***STUDENT EVALUATION STANDARDS*** *(List the criteria on which students will be graded in the course. Give the approximate weight for each of the grading criteria in determining the student's grade, such as tests, homework, labs, class participation. Also indicate the weight given to quarter grades and semester final in tabulating the final grade.)*

1. Essay type or subjective tests	15%
2. Objective tests	10%
3. Actual test of ability in shop skills	15%
4. Shop performance and cleanup	10%
5. Project completion and quality	40%
6. Participation in co-curricular activities (FFA) and SAE	10%

The following range is used to determine what grade a student will receive at the quarter and semester.

A	90%	-	100%
B	80%	-	89%
C	70%	-	79%
D	60%	-	69%
F	0%	-	59%

G. ***SUGGESTED INSTRUCTIONAL ACTIVITIES*** ***(This item is optional and is not required of the course of study. If it is completed, it should include teacher and/or student activities such as field trips, demonstrations, speakers, or special procedures that will assist the students in learning the course objectives.)***

Career Development Events: Ag Mech team and Ag Welding Team
Kern county Fair
World Ag Expo
Guest Speakers
Industry demonstrations

Prepared by: Hector Jimenez, Richard Goodding, Mark Morales

Kern High School District
Welding Program Competencies

Projects to be completed for CERTIFICATION.

1. Pad weld Flat – 6010 _____
2. Pad weld downhill – 6010 _____
3. Pad weld horizontal – 6010 _____
4. Pad weld uphill – 6010 _____
5. Pad weld overhead – 6010 _____
6. Pad weld flat – 7018 _____
7. Pad weld horizontal – 7018 _____
8. Pad weld uphill – 7018 _____
9. Pad weld overhead – 7018 _____
10. Tee weld flat – 6010 _____
11. Tee weld downhill – 6010 _____
12. Tee weld uphill – 6010 _____
13. Tee weld overhead – 6010 _____
14. Tee weld Flat – 7018 _____
15. Tee weld uphill – 7018 _____
16. Tee weld overhead – 7018 _____
17. Lap weld flat – 6010 _____
18. Lap weld downhill – 6010 _____
19. Lap weld uphill – 6010 _____
20. Lap weld overhead – 6010 _____
21. Lap weld flat – 7018 _____
22. Lap weld uphill – 7018 _____
23. Lap weld overhead – 7018 _____
24. Open root flat – 6010 _____
25. Open root downhill – 6010 _____
26. Open root horizontal – 6010 _____
27. Open root uphill – 6010 _____
28. Open root overhead– 6010 _____
29. Open root flat – 6010 rt 7018 F/C _____
30. Open root downhill – 6010rt7018F/C _____
31. Open root horizontal – 6010rt7018F/C _____
32. Open root uphill – 6010rt7018F/C _____
33. Open root overhead – 6010rt7018F/C _____
34. Pipe 6 g positions – 6010/7018 _____
35. Mig flat – pad _____
36. Mig downhill - pad _____
37. Mig uphill - pad _____
38. Mig flat - tee _____
39. Mig downhill - Tee _____
40. Mig uphill - Tee _____
41. Blueprint Reading _____

Rating Scale
1. Competency Mastered
2. Competency Not Mastered

Total Hours Available _____
Total Hours Completed _____

Kern High School District
Office of Instruction

DPC#: 5540
Approved by Board: _____

COURSE OF STUDY

Floral Design 1, #5540	9-12	Agriculture	10
Course Title (Title must correlate with Course Code Catalog)	Grade Level	Department	Max. Credit

Does this course satisfy a graduation Requirement in another subject area? YES

If so, what subject area? Fine Arts Graduating Credit; UC fine Arts Credit

Prepared by: Jennifer Wilke — Bakersfield High School (School) — 4/2008 (Date)

Approval of Site Administrator: _____ (Signature) _____ (Date)

A. COURSE INFORMATION

Grade Level: 9 - 12

Length of Course: 1 year

Maximum Credit: 10 units

Recommendation for Enrollment: None.

B. BRIEF DESCRIPTION OF THE COURSE

The Art and History of Floral Design provides an introduction to artistic and creative perception including aesthetic valuing through a series of projects in various media including tempera, pencil, flowers, tile, and a variety of papers. Students are also introduced to the elements and principles of visual art design such as line, shape/form, color, balance, and emphasis using a series of floral-based projects to explore the connections, relations, and application to visual arts design. Students will research and study floral trends to understand and develop an appreciation for floral design within historical and cultural, formal and casual, ceremonial and traditional, including an understanding that floral designs are affected by society, culture, history, politics, and economic influence. Various assignments based on abstract two and three dimensional designs, historical culture and theory, color theory, and analytical critiques of various floral art works using design vocabulary in conjunction with development of technical skills in floral art will serve as a foundation for more complex works such as multi-part floral designs and creative expression through wedding consultations.

C. BOARD – ADOPTED TEXTBOOKS

The Art of Floral Design, by Norah T. Hunter; pub Delmar

D. SUPPLEMENTARY INSTRUCTIONAL MATERIALS

Art Talk, by Rosalind Ragans; pub Glencoe & McGraw-Hill
The Art of Floral Design, by Norah T. Hunter; pub Delmar
Art Fundamentals, by Otto Ocvirk; pub McGraw Hill
Discovering Art History, by Gerald F. Bromer; pub Davis
Exploring Visual Design: The Elements & Principles; pub Davis
The Visual Experience; pub Delmar
Essential Impressionist; pub Parragon
The Natural Way to Draw, by Kimon Nicolaides
Elements of Design (video); pub Crystal Productions

Floriculture: From Greenhouse Production to Floral Design, Delmar Publishing
California Vocational Agriculture Model Core Curriculum, Ornamental Horticulture
Basic Floral Design Workbook
University of California Content Standards for Visual and Performing Arts

A variety of handouts, overheads, and guest speakers from our community will be utilized. The students will be using our shop, computer lab, and greenhouse to supplement classroom activities

E. BRIEF OUTLINE OF FLORAL DESIGN COURSE CONTENT

Unit of Instruction/Objectives	VPA Standards	Key Assignments
Unit I: Introduction to Art **A. The Variety of Art** 1. Artistic perception **B. When is it Art?** 1. Philosophy of Arts 2. Aesthetic Value of Objects 3. Artistic Inspirations 4. Art Appreciation 5. The Art World	Aesthetic Valuing 4.1, 4.3 Connections, Relationships, Applications 5.4	• Students will write an art evaluation on one of the below: Ikebana Design, Vincent Van Gogh, Pablo Picasso, Edouard Monet, Klaus Wagner, Gregor Lersch, Els and George Hazenberg, Georgia O'Keeffe, Pierre Renoir • Students will create an *Interactive Notebook* that will contain: class notes from lectures, drawings, and class exercises. Students will build upon this notebook through each unit of instruction utilizing both sides of the brain.

Unit of Instruction/Objectives	VPA Standards	Key Assignments
Unit I: Introduction to Art-*continued* **C. Floral Symbolism** 1. Identify flowers and foliage and their symbolism in art. a. Historical and modern works of art b. Cultural c. Design d. Ikebana	Artistic Perception 1.5 Historical & Cultural Context 3.1, 3.3, 3.4 Aesthetic Valuing 4.1	• Students will research and write a description of the historical symbolism of specific flowers and foliage. • Students will choose a flower or foliage, find the symbolism and from it create a floral design. • Add information, lecture notes, and drawings to *Interactive Notebook* on historical flower symbolism
Unit II: Historical Contributions and Cultural Dimensions **A. Interpretation** 2. The meaning of art 3. Elements of Art History **B. History of Floral Art** 1. The Floral Art Designs of Ancient Civilizations 2. Floral visual art design styles and their origination **C. Research the Influences of Floral Artists of the 20th and 21st Century** 1. Styles and techniques 2. Artistic Inspirations 3. Visual themes used in various cultures 4. Artistic components of various time periods and cultures 5. Time periods in floral art history 6. Historical style and periods 7. Floral art design: culture, ethnicity, time periods, and media 8. Cultural Themes: religious, holiday, funeral and wedding 9. Cultural Design 10. Design alternatives	Artistic Perception 1.3, 1.5, 1.6 Creative Expression 2.4, 2.5, 2.6 Historical & Cultural Context 3.1, 3.2, 3.3, 3.4 Aesthetic Valuing 4.1, 4.2, 4.3, 4.5 Connections, Relationships, Applications 5.2	• Evaluation of art examples from various time periods • Create a visual presentation on history of Floral Design • Project on floral art history and specific art periods including: European Period, Impressionistic Era, Oriental Influence, and American Styles • Create a two and three dimensional visual display of floral art: Freeform Expression, Geometric Mass, Art Deco, Art Noveau, and Modern Contemporary through the use of various media • Practicum using a given theme: two dimensional layouts, three-dimensional arrangements, fresh and dry cut flower designs, and container arrangements

Unit of Instruction/Objectives	VPA Standards	Key Assignments
Unit III: Aesthetic Valuing and Making Judgments on Individual Works of Art **A. Works of Art and Aesthetic Value** 1. Critique works of art using appropriate visual arts terms 2. Analyze art works in terms of art elements and design principles 3. Apply sensory qualities to works of floral art 4. Explores various styles and periods of viewed art 5. Evaluate and critique art elements and art principles used in others and own works of art	Creative Expression 2.2, 2.5, 2.6 Connections, Relationships, Applications 5.3, 5.4	• Complete a floral art three-dimensional Critique Sheet for historical periods • Create floral design arrangements with emphasis on elements and principles of design • Create verbal and written reflections for floral design project utilizing student's *Interactive Notebook* • Develop a portfolio including two-dimensional drawings, three-dimensional sculptures, and artworks' critiques. Minimum of five pieces required. • Demonstrate knowledge of influential art periods through a cultural and historical 3-5 page research paper. • Analyze and interpret student and others' work through critiques and rubrics. • Develop and convey floral art knowledge using visual art terminology in an oral presentation for floral art.
Unit IV: Art Elements of Design **A. Lines** 1. Implied and expressive use of line in visual art works 2. Vertical, horizontal, and diagonal use of line in floral art works **B. Shapes/Forms** 1. Shape and form in visual art works	Creative Expression 2.3, 2.6 Aesthetic Valuing 4.2, 4.3	• Complete worksheet for elements and principles of design • Create a design project utilizing all elements and principles of design • Emotions and color influence project

2. Visual art elements of shape and form in design through **C. Colors** 1. The origin of color through visual art 2. Color harmony in various art works 3. Use of monochromatic, analogous, complementary, and triadic schemes in student and other visual art works		• Create a Color Wheel • Additions to student art and floral Portfolio Projects: application using triangular, circular, vertical, and horizontal floral art designs and applying hue, primary, secondary, tertiary, warm, cool, value, tint, tone, and shades to floral artworks
Unit of Instruction/Objectives	**VPA Standards**	**Key Assignments**
Unit IV: Art Elements of Design-*continued* **D. Textures** 1. Visual and tactile components in floral art using fine, medium, and course-textured media 2. Container and material components of floral art 3. Flower and foliage use through arrangements **E. Value** 1. Light and dark in visual art designs 2. Light and dark change in floral art **F. Space and Depth** 1. The use of space in two and three-dimensional visual art designs 2. Interpret space in our environment 3. The use of space in visual designs by applying angling and overlapping media in floral art designs 4. Significance of size and color of media in Floral Art		• Add information, notes, and drawing to *Interactive Notebook* on color harmony, value, and schemes
Unit V: Principles of Art Design **A. Balance** 1. Symmetrical and asymmetrical balance in floral art 2. Asymmetrical or symmetrical balance through developing floral art works 3. Radial and open balance in visual	Artistic Perception 1.1, 1.2, 1.3, 1.4 Creative Expression 2.3	• Complete worksheet for elements and principles of design • Create a design project utilizing all elements and principles of design • Emotions and color

art designs **B. Proportion/Scale** 1. Proportion and scale through application of floral art designs using the following techniques: flower to container, flower to flower, and flower to foliage, and arrangement to environment 2. Geometrical techniques in floral art and visual art designs **C. Emphasis** 1. Visual floral art works 2. Other visual art works: convey understanding of location, size, pattern, framing, and isolation in floral art designs 3. Emphasis in floral designs by using line direction and directional facing **D. Rhythm** 1. Floral art using repetition and eye movement 2. Transition and radiating line in floral art works	Aesthetic Valuing 4.2, 4.3	influence project • Create a Color Wheel • Add information, notes, and drawing to *Interactive Notebook* on color harmony, value, and schemes • Classroom Color Display Board • Additions to student art and floral Portfolio Projects: applying focal point to student works
Unit of Instruction/Objectives	**VPA Standards**	**Key Assignments**
Unit V: Principles of Art Design- ***continued*** **E. Harmony and Unity** 1. Harmony and unity through applying color combinations to visual designs 2. Placement, transition, and proximity in visual art works and critique student works in floral design **F. Contrast** 1. Color schemes in floral art design using various media		

Unit VI: Creative Expression Through Applying Artistic Processes and Skills to Original Works of Art **A. Two-Dimensional Media** 1. Basic drawing and layout: simple perspective drawing, sketching original art works, and project layout 2. Painting techniques for floral art through developing a color wheel and still life floral artwork 3. Mosaic art designs for floral art using paper and tile 4. Printmaking to floral art using pressed flowers 5. Photographic and graphic design through computer art **B. Three-Dimensional Sculptures** 1. Display flower and foliage media techniques for specific floral art: mass flower and foliage, filler flower and foliage, line flower and foliage, form flower and foliage, fresh flower and foliage, dry flower and foliage, and artificial flower and foliage 2. Mechanics, materials, and media through an introduction to proper care and proper usage of floral equipment and media 3. Specific artist styles and techniques using Oriental, European, and Exhibition Styles: Chinese, Japanese, Vertical, Circular, Triangular, and Wear and Carry Designs 4. Demonstrate the process of evaluation and refining floral art projects	<u>Creative Expression</u> 2.1, 2.3, 2.6 <u>Historical & Cultural Context</u> 3.1, 3.4, 3.5 <u>Aesthetic Valuing</u> 4.1, 4.2, 4.3, 4.4	• Create a presentation board displaying basic drawing and layout skills • Create mosaic art designs for floral art using paper and tile. • Create and display flower and foliage media techniques for specific floral art: Mass Flower and Foliage, Filler Flower and Foliage, Line Flower and Foliage, Form Flower and Foliage, Fresh Flower and Foliage, Dry Flower and Foliage, and Artificial Flower and Foliage. • Create a floral project applying mechanics, materials, and media through an introduction to proper care, proper usage, equipment and media. • Create a floral project displaying specific artists' styles and techniques using Oriental, European, and Exhibition Styles • Student will evaluate his/her floral art project and support a position regarding the aesthetic value of the project and either change or defend position after considering views of others

Unit of Instruction/Objectives	VPA Standards	Key Assignments
Unit VII: Connections, Relationships, and Applications Learned in Visual Art **A. Relationships to Other Disciplines** 1. Compare and contrast works of art to other discipline areas	Creative Expression 2.3 Historical & Cultural Context 3.4	• Create a mosaic art design utilizing geometric shapes • Emotional poetic, color influenced project designed visually for floral art • Historical time periods and artistic works written three page report • Design a floral advertisement using art elements, principles, and techniques to display student's work at an art exhibition. • Create a two-dimensional or three-dimensional design incorporating elements and principles as applied to a specific theme and culture.

F. ***BEHAVIORAL OBJECTIVES FOR FLORAL DESIGN***

- Employ senses to perceive and apply the elements and principles of visual design through works of art, objects in nature, events, and the environment
- Explore the role of floral design in human history and culture through creative design concepts in two and three dimensional media, based on floral arranging
- Derive meaning from artworks and floral art designs, including floral symbolism, through analyzing, interpretations, and judgment of various pieces developed by renown artists of different historical and contemporary periods
- Demonstrate skills in utilizing the language of visual arts design as the foundation for creating and analyzing the visual structures and functions of art
- Develop and create original artwork based on relating visual art design concepts and processes to their own personal experiences and lifelong learning

Course Objectives

ARTISTIC PERCEPTION

- *Develop Perceptual Skills and Visual Arts Vocabulary*
  - 1.1 Identify and use the principles of design to discuss, analyze, and write about visual aspects in the environment and in works of art, including their own.
  - 1.2 Describe the principles of design as used in works of art, focusing on dominance and subordination.

- *Analyze Art Elements and Principles of Design*
  - 1.3 Research and analyze the work of an artist and write about the artist's distinctive style and its contribution to the meaning of the work.
  - 1.4 Analyze and describe how the composition of a work of art is affected by the use of a particular principle of design.
- *Impact of Media Choice*
  - 1.5 Analyze the material used by a given artist and describe how its use influences the meaning of the work.
  - 1.6 Compare and contrast similar styles of works of art done in electronic media with those done with materials traditionally used in the visual arts.

2.0 CREATIVE EXPRESSION

- *Skills, Processes, Materials, and Tools*
  - 2.1 Solve a visual arts problem that involves the effective use of the elements of art and the principles of design.
  - 2.2 Prepare a portfolio of original two-and three-dimensional works of art that reflects refined craftsmanship and technical skills.
  - 2.3 Develop and refine skill in the manipulation of digital imagery (either still or video).
  - 2.4 Review and refine observational drawing skills.
- *Communication and Expression Through Original Works of Art*
  - 2.5 Create an expressive composition, focusing on dominance and subordination.
  - 2.6 Create two or three-dimensional work of art that addresses a social issue.

3.0 HISTORICAL AND CULTURAL CONTEXT

- *Role and Development of the Visual Arts*
  - 3.1 Identify similarities and differences in the purposes of art created in selected cultures.
  - 3.2 Identify and describe the role and influence of new technologies on contemporary works of art.
- *Diversity of the Visual Arts*
  - 3.3 Identify and describe trends in the visual arts and discuss how the issues of time, place, and cultural influence are reflected in selected works of art.
  - 3.4 Discuss the purposes of art in selected contemporary cultures.

4.0 AESTHETIC VALUING

- *Derive Meaning*
  - 4.1 Articulate how personal beliefs, cultural traditions, and current social, economic, and political contexts influence the interpretation of the meaning or message in a work of art.
  - 4.2 Compare the ways in which the meaning of a specific work of art has been affected over time because of changes in interpretation and context.
- *Make Informed Judgments*
  - 4.3 Formulate and support a position regarding the aesthetic value of a specific work of art and change or defend that position after considering the views of others.
    4.4 Articulate the process and rationale for refining and reworking one of their own works of art.
  - 4.5 Employ the conventions of art criticism in writing and speaking about works of art.

5.0 CONNECTIONS, RELATIONSHIPS, APPLICATIONS

- *Connections and Applications*
  - 5.2 Create a work of art that communicates a cross-cultural or universal theme taken from literature or history.
- *Visual Literacy*
  - 5.3 Compare and contrast the ways in which different media (television, newspapers, magazines) cover the same art exhibition
- *Careers and Career-Related Skills*

- 5.4 Demonstrate an understanding of the various skills of an artist, art critic, art historian, art collector, art gallery owner, and philosopher of art (aesthetician).

The course objectives are designed to help the students achieve the following Bakersfield High School ESLR's: 1a, b, c, 2a, b, c, d, e, f, and 3 a, b, c, d.

FOUNDATION STANDARDS

1.0 Academics - Students understand the academic content required for entry into postsecondary education and employment in the Agriculture and Natural Resources sector. (The standards listed below retain in parentheses the numbering as specified in the mathematics, science, and history–social science content standards adopted by the State Board of Education.)

1.3 History–Social Science : Specific applications of Principles of Economics standards (grade twelve):
(12.2) Students analyze the elements of America's market economy in a global setting.
(12.2.2) Discuss the effects of changes in supply and/or demand on the relative scarcity, price, and quantity of particular products.
(12.2.3) Explain the roles of property rights, competition, and profit in a market economy.
(12.2.5) Understand the process by which competition among buyers and sellers determines a market price.
(12.2.6) Describe the effect of price controls on buyers and sellers.
(12.2.7) Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products.
(12.2.10) Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.

2.0 Communications: Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts. (The standards listed below retain in parentheses the numbering as specified in the English– language arts content standards adopted by the State Board of Education.)

2.1 Reading: Specific applications of Reading Comprehension standards (grades nine and ten):
(2.1) Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how authors use the features to achieve their purposes.
(2.2) Prepare a bibliography of reference materials for a report using a variety of consumer, workplace, and public documents.
(2.3) Generate relevant questions about readings on issues that can be researched.
(2.6) Demonstrate use of sophisticated learning tools by following technical directions (e.g., those found with graphic calculators and specialized software programs and in access guides to World Wide Web sites on the Internet).

2.2 Writing: Specific applications of Writing Strategies and Applications standards (grades 9-10)
(1.1) Establish a controlling impression or coherent thesis that conveys a clear and distinctive perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.
(1.2) Use precise language, action verbs, sensory details, appropriate modifiers, and the active rather than the passive voice.
(1.3) Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.
(1.5) Synthesize information from multiple sources and identify complexities and discrepancies in the information and the different perspectives found in each medium (e.g., almanacs, microfiche, news sources, in-depth field studies,
speeches, journals, technical documents).
(2.3) Write expository compositions, including analytical essays and research reports:
a. Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.

b. Convey information and ideas from primary and secondary sources accurately and coherently.
c. Make distinctions between the relative value and significance of specific data, facts, and ideas.
d. Include visual aids by employing appropriate technology to organize and record information on charts, maps, and graphs.
e. Anticipate and address readers' potential misunderstandings, biases, and expectations.
f. Use technical terms and notations accurately.

(2.5) Write business letters:
a. Provide clear and purposeful information and address the intended audience appropriately.
b. Use appropriate vocabulary, tone, and style to take into account the nature of the relationship with, and the knowledge and interests of, the recipients.
c. Highlight central ideas or images.
d. Follow a conventional style with page formats, fonts, and spacing that contribute to the documents' readability and impact.

(2.6) Write technical documents (e.g., a manual on rules of behavior for conflict resolution, procedures for conducting a meeting, minutes of a meeting):
a. Report information and convey ideas logically and correctly.
b. Offer detailed and accurate specifications.
c. Include scenarios, definitions, and examples to aid comprehension (e.g., troubleshooting guide).
d. Anticipate readers' problems, mistakes, and misunderstandings.

Specific applications of Writing Strategies and Applications standards (grades eleven and twelve):

(1.3) Structure ideas and arguments in a sustained, persuasive, and sophisticated way and support them with precise and relevant examples.

(1.6) Develop presentations by using clear research questions and creative and critical research strategies (e.g., field studies, oral histories, interviews, experiments, electronic sources).

(1.7) Use systematic strategies to organize and record information (e.g., anecdotal scripting, annotated bibliographies).

(1.8) Integrate databases, graphics, and spreadsheets into word-processed documents.

(2.5) Write job applications and résumés:
a. Provide clear and purposeful information and address the intended audience appropriately.
b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension.
c. Modify the tone to fit the purpose and audience.
d. Follow the conventional style for that type of document (e.g., résumé, memorandum) and use page formats, fonts, and spacing that contribute to the readability and impact of the document.

(2.6) Deliver multimedia presentations:
a. Combine text, images, and sound and draw information from many sources (e.g., television broadcasts, videos, films, newspapers, magazines, CD-ROMs, the Internet, electronic media-generated images).
b. Select an appropriate medium for each element of the presentation.
c. Use the selected media skillfully, editing appropriately and monitoring for quality.
d. Test the audience's response and revise the presentation accordingly.

2.3 Written and Oral English Language Conventions : Specific applications of English Language Conventions standards (grades eleven and twelve):

(1.1) Demonstrate control of grammar, diction, and paragraph and sentence structure and an understanding of English usage.

(1.2) Produce legible work that shows accurate spelling and correct punctuation and capitalization.

(1.3) Reflect appropriate manuscript requirements in writing.

2.4 Listening and Speaking: Specific applications of Listening and Speaking Strategies and Applications standards (grades nine and ten):

(1.1) Formulate judgments about the ideas under discussion and support those judgments with convincing evidence.

(1.7) Use props, visual aids, graphs, and electronic media to enhance the appeal and accuracy of presentations.

(2.2) Deliver expository presentations:

a. Convey information and ideas from primary and secondary sources accurately and coherently.
b. Make distinctions between the relative value and significance of specific data, facts, and ideas.
c. Include visual aids by employing appropriate technology to organize and display information on charts, maps, and graphs.
e. Anticipate and address the listener's potential misunderstandings, biases, and expectations.
f. Use technical terms and notations accurately.

(2.3) Apply appropriate interviewing techniques:
a. Prepare and ask relevant questions.
b. Make notes of responses.
c. Use language that conveys maturity, sensitivity, and respect.
d. Respond correctly and effectively to questions.
e. Demonstrate knowledge of the subject or organization.
f. Compile and report responses.
g. Evaluate the effectiveness of the interview.

Specific applications of Listening and Speaking Strategies and Applications standards (grades 11-12)

(1.8) Use effective and interesting language, including:
a. Informal expressions for effect
b. Standard American English for clarity
c. Technical language for specificity

(1.14) Analyze the techniques used in media messages for a particular audience and evaluate their effectiveness (e.g., Orson Welles' radio broadcast "War of the Worlds").

(2.4) Deliver multimedia presentations:
a. Combine text, images, and sound by incorporating information from a wide range of media, including films, newspapers, magazines, CD-ROMs, online information, television, videos, and electronic media-generated images.
b. Select an appropriate medium for each element of the presentation.
c. Use the selected media skillfully, editing appropriately and monitoring for quality.
d. Test the audience's response and revise the presentation accordingly

Career Technical Standards

3.0 Career Planning and Management

Students understand how to make effective decisions, use career information, and manage personal career plans:

3.1 Know the personal qualifications, interests, aptitudes, information, and skills necessary to succeed in careers.

3.2 Understand the scope of career opportunities and know the requirements for education, training, and licensure.

3.3 Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.

3.4 Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.

3.5 Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.

3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio.

4.0 Technology : Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments:

4.1 Understand past, present, and future technological advances as they relate to a chosen pathway.

4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.

4.3 Understand the influence of current and emerging technology on selected segments of the economy.

4.4 Understand geographic information systems (G.I.S.).

4.5 Determine the validity of the content and evaluate the authenticity, reliability, and bias of electronic and other resources.

4.6 Differentiate among, select, and apply appropriate tools and technology.

5.0 Problem Solving and Critical Thinking : Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, and problem-solving techniques:

5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.

5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.

5.3 Use critical thinking skills to make informed decisions and solve problems.

6.0 Health and Safety : Students understand health and safety policies, procedures, regulations, and practices, including the use of equipment and handling of hazardous materials:

6.1 Know policies, procedures, and regulations regarding health and safety in the workplace, including employers' and employees' responsibilities.

6.2 Understand critical elements of health and safety practices related to storing, cleaning, and maintaining tools, equipment, and supplies.

6.3 Understand how to locate important information on a material safety data sheet.

6.4 Maintain safe and healthful working conditions.

6.5 Use tools and machines safely and appropriately.

6.6 Know how to both prevent and respond to accidents in the agricultural industry.

7.0 Responsibility and Flexibility : Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings:

7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.

7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.

7.3 Understand the need to adapt to varied roles and responsibilities.

7.4 Understand that individual actions can affect the larger community.

7.5 Understand the importance of time management to fulfill responsibilities.

7.6 Know how to apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.

8.0 Ethics and Legal Responsibilities: Students understand professional, ethical, and legal behavior consistent with applicable laws, regulations, and organizational norms:

8.1 Know the major local, district, state, and federal regulatory agencies and entities that affect the industry and how they enforce laws and regulations.

8.2 Understand the concept and application of ethical and legal behavior consistent with workplace standards.

8.3 Understand the role of personal integrity and ethical behavior in the workplace.

8.4 Understand how to access, analyze, and implement quality assurance information.

9.0 Leadership and Teamwork : Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution:

9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.

9.2 Understand the ways in which preprofessional associations, such as the Future Farmers of America (FFA), and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.

9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.

9.4 Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.

9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.

9.6 Understand leadership, cooperation, collaboration, and effective decision-making skills applied in group or team activities, including the student organization.

10.0 Technical Knowledge and Skills : Students understand the essential knowledge and skills common to all pathways in the Agriculture and Natural Resources sector:

10.1 Understand the aims, purposes, history, and structure of the FFA student organization, and know the opportunities it makes available.

10.2 Manage and actively engage in a career-related, supervised agricultural experience.

10.3 Understand the importance of maintaining and completing the California Agricultural Record Book.

10.4 Maintain and troubleshoot equipment used in the agricultural industry.

11.0 Demonstration and Application : Students demonstrate and apply the concepts contained in the foundation and pathway standards.

CTE Course Standards as relevant to past and/or current agriculture course enrollment will be applied and enforced as related to the subject areas addressed in the course outline above.

G. ASSESSMENT PROCEDURES

1. The students will be assessed on the following:
    a. Daily Participation (Journals, Timecards, etc…) 15%
    b. Leadership (FFA) 15%
    c. Classwork/Homework 30%
    d. Quizzes/Tests/Floral Design Assessments 25%
    e. Supervised Agriculture Experience Project& Record Keeping 15%

Semester Grades are based on the following:

Quarter 1	**45%**
Quarter 2	**45%**
Final	**10%**

**** Semester final is a project incorporated in the second quarter grade.**

Kern High School District
Office of Instruction

DPC#: 5640
Approved by Board: _____

COURSE OF STUDY

Floral Design 2, #5640	10-12	Agriculture	10
Course Title (Title must correlate with Course Code Catalog)	**Grade Level**	**Department**	**Max. Credit**

Does this course satisfy a graduation Requirement in another subject area? **YES**

If so, what subject area? **Fine Arts Graduating Credit; UC fine Arts Credit**

Prepared by: Jennifer Wilke — Bakersfield High School (**School**) — 4/2008 (**Date**)

Approval of Site Administrator: _____ (**Signature**) _____ (**Date**)

A. *COURSE INFORMATION*

Grade Level: 10- 12

Length of Course: 1 year

Maximum Credit: 10 units

Recommendation for Enrollment: Satisfactory completion of Floral Design 1 with a C or better.

B. *BRIEF DESCRIPTION OF THE COURSE*

This is a second year course in the floral design career pathway. This course continues to provide education and hands on skills dealing with the artistic and creative perception including aesthetic valuing through a series of projects in various media including tempera, pencil, flowers, tile, and a variety of papers. Students are also introduced to the elements and principles of visual art design such as line, shape/form, color, balance, and emphasis using a series of floral-based projects to explore the connections, relations, and application to visual arts design. Students will research and study floral trends to understand and develop an appreciation for floral design within historical and cultural, formal and casual, ceremonial and traditional, including an understanding that floral designs are affected by society, culture, history, politics, and economic influence. Various assignments based on abstract two and three dimensional designs, historical culture and theory, color theory, and analytical critiques of various floral art works using design vocabulary in conjunction with development of technical skills in floral art will serve as a foundation for more complex works such as multi-part floral designs and creative expression through wedding consultations.

C. BOARD – ADOPTED TEXTBOOKS

The Art of Floral Design, by Norah T. Hunter; pub Delmar

D. SUPPLEMENTARY INSTRUCTIONAL MATERIALS

Art Talk, by Rosalind Ragans; pub Glencoe & McGraw-Hill
The Art of Floral Design, by Norah T. Hunter; pub Delmar
Art Fundamentals, by Otto Ocvirk; pub McGraw Hill
Discovering Art History, by Gerald F. Bromer; pub Davis
Exploring Visual Design: The Elements & Principles; pub Davis
The Visual Experience; pub Delmar
Essential Impressionist; pub Parragon
The Natural Way to Draw, by Kimon Nicolaides
Elements of Design (video); pub Crystal Productions

Floriculture: From Greenhouse Production to Floral Design, Delmar Publishing
California Vocational Agriculture Model Core Curriculum, Ornamental Horticulture
Basic Floral Design Workbook
University of California Content Standards for Visual and Performing Arts

A variety of handouts, overheads, and guest speakers from our community will be utilized. The students will be using our shop, computer lab, and greenhouse to supplement classroom activities

E. BRIEF OUTLINE OF FLORAL DESIGN COURSE CONTENT

Unit of Instruction/Objectives	VPA Standards	Key Assignments
Unit I: Introduction to Art **A. The Variety of Art** 1. Artistic perception **B. When is it Art?** 1. Philosophy of Arts 2. Aesthetic Value of Objects 3. Artistic Inspirations 4. Art Appreciation 5. The Art World	Aesthetic Valuing 4.1, 4.3 Connections, Relationships, Applications 5.4	• Students will write an art evaluation on one of the below: Ikebana Design, Vincent Van Gogh, Pablo Picasso, Edouard Monet, Klaus Wagner, Gregor Lersch, Els and George Hazenberg, Georgia O'Keeffe, Pierre Renoir • Students will create an *Interactive Notebook* that will contain: class notes from lectures, drawings, and class exercises. Students will build upon this notebook through each unit of

		instruction utilizing both sides of the brain.
Unit of Instruction/Objectives	**VPA Standards**	**Key Assignments**
Unit I: Introduction to Art-*continued* **C. Floral Symbolism** 1. Identify flowers and foliage and their symbolism in art. a. Historical and modern works of art b. Cultural c. Design d. Ikebana	Artistic Perception 1.5 Historical & Cultural Context 3.1, 3.3, 3.4 Aesthetic Valuing 4.1	• Students will research and write a description of the historical symbolism of specific flowers and foliage. • Students will choose a flower or foliage, find the symbolism and from it create a floral design. • Add information, lecture notes, and drawings to *Interactive Notebook* on historical flower symbolism
Unit II: Historical Contributions and Cultural Dimensions **A. Interpretation** 2. The meaning of art 3. Elements of Art History **B. History of Floral Art** 1. The Floral Art Designs of Ancient Civilizations 2. Floral visual art design styles and their origination **C. Research the Influences of Floral Artists of the 20th and 21st Century** 1. Styles and techniques 2. Artistic Inspirations 3. Visual themes used in various cultures 4. Artistic components of various time periods and cultures 5. Time periods in floral art history 6. Historical style and periods 7. Floral art design: culture, ethnicity, time periods, and media 8. Cultural Themes: religious, holiday, funeral and wedding 9. Cultural Design 10. Design alternatives	Artistic Perception 1.3, 1.5, 1.6 Creative Expression 2.4, 2.5, 2.6 Historical & Cultural Context 3.1, 3.2, 3.3, 3.4 Aesthetic Valuing 4.1, 4.2, 4.3, 4.5 Connections, Relationships, Applications 5.2	• Evaluation of art examples from various time periods • Create a visual presentation on history of Floral Design • Project on floral art history and specific art periods including: European Period, Impressionistic Era, Oriental Influence, and American Styles • Create a two and three dimensional visual display of floral art: Freeform Expression, Geometric Mass, Art Deco, Art Noveau, and Modern Contemporary through the use of various media • Practicum using a given theme: two dimensional layouts, three-dimensional arrangements, fresh

		and dry cut flower designs, and container arrangements

Unit of Instruction/Objectives	VPA Standards	Key Assignments
Unit III: Aesthetic Valuing and Making Judgments on Individual Works of Art **A. Works of Art and Aesthetic Value** 1. Critique works of art using appropriate visual arts terms 2. Analyze art works in terms of art elements and design principles 3. Apply sensory qualities to works of floral art 4. Explores various styles and periods of viewed art 5. Evaluate and critique art elements and art principles used in others and own works of art	Creative Expression 2.2, 2.5, 2.6 Connections, Relationships, Applications 5.3, 5.4	• Complete a floral art three-dimensional Critique Sheet for historical periods • Create floral design arrangements with emphasis on elements and principles of design • Create verbal and written reflections for floral design project utilizing student's *Interactive Notebook* • Develop a portfolio including two-dimensional drawings, three-dimensional sculptures, and artworks' critiques. Minimum of five pieces required. • Demonstrate knowledge of influential art periods through a cultural and historical 3-5 page research paper. • Analyze and interpret student and others' work through critiques and rubrics. • Develop and convey floral art knowledge using visual art terminology in an oral presentation for floral art.
Unit IV: Art Elements of Design **A. Lines** 1. Implied and expressive use of line in visual art works 2. Vertical, horizontal, and diagonal use of line in floral art works **B. Shapes/Forms** 1. Shape and form in visual art works	Creative Expression 2.3, 2.6 Aesthetic Valuing 4.2, 4.3	• Complete worksheet for elements and principles of design • Create a design project utilizing all elements and principles of design • Emotions and color influence project

2. Visual art elements of shape and form in design through **C. Colors** 1. The origin of color through visual art 2. Color harmony in various art works 3. Use of monochromatic, analogous, complementary, and triadic schemes in student and other visual art works		• Create a Color Wheel • Additions to student art and floral Portfolio Projects: application using triangular, circular, vertical, and horizontal floral art designs and applying hue, primary, secondary, tertiary, warm, cool, value, tint, tone, and shades to floral artworks
Unit of Instruction/Objectives	**VPA Standards**	**Key Assignments**
Unit IV: Art Elements of Design-*continued* **D. Textures** 1. Visual and tactile components in floral art using fine, medium, and course-textured media 2. Container and material components of floral art 3. Flower and foliage use through arrangements **E. Value** 1. Light and dark in visual art designs 2. Light and dark change in floral art **F. Space and Depth** 1. The use of space in two and three-dimensional visual art designs 2. Interpret space in our environment 3. The use of space in visual designs by applying angling and overlapping media in floral art designs 4. Significance of size and color of media in Floral Art		• Add information, notes, and drawing to *Interactive Notebook* on color harmony, value, and schemes
Unit V: Principles of Art Design **A. Balance** 1. Symmetrical and asymmetrical balance in floral art 2. Asymmetrical or symmetrical balance through developing floral art works 3. Radial and open balance in visual	Artistic Perception 1.1, 1.2, 1.3, 1.4 Creative Expression 2.3	• Complete worksheet for elements and principles of design • Create a design project utilizing all elements and principles of design • Emotions and color

art designs **B. Proportion/Scale** 1. Proportion and scale through application of floral art designs using the following techniques: flower to container, flower to flower, and flower to foliage, and arrangement to environment 2. Geometrical techniques in floral art and visual art designs **C. Emphasis** 1. Visual floral art works 2. Other visual art works: convey understanding of location, size, pattern, framing, and isolation in floral art designs 3. Emphasis in floral designs by using line direction and directional facing **D. Rhythm** 1. Floral art using repetition and eye movement 2. Transition and radiating line in floral art works	Aesthetic Valuing 4.2, 4.3	influence project • Create a Color Wheel • Add information, notes, and drawing to *Interactive Notebook* on color harmony, value, and schemes • Classroom Color Display Board • Additions to student art and floral Portfolio Projects: applying focal point to student works
Unit of Instruction/Objectives	**VPA Standards**	**Key Assignments**
Unit V: Principles of Art Design- ***continued*** **E. Harmony and Unity** 1. Harmony and unity through applying color combinations to visual designs 2. Placement, transition, and proximity in visual art works and critique student works in floral design **F. Contrast** 1. Color schemes in floral art design using various media		

Unit VI: Creative Expression Through Applying Artistic Processes and Skills to Original Works of Art **A. Two-Dimensional Media** 1. Basic drawing and layout: simple perspective drawing, sketching original art works, and project layout 2. Painting techniques for floral art through developing a color wheel and still life floral artwork 3. Mosaic art designs for floral art using paper and tile 4. Printmaking to floral art using pressed flowers 5. Photographic and graphic design through computer art **B. Three-Dimensional Sculptures** 1. Display flower and foliage media techniques for specific floral art: mass flower and foliage, filler flower and foliage, line flower and foliage, form flower and foliage, fresh flower and foliage, dry flower and foliage, and artificial flower and foliage 2. Mechanics, materials, and media through an introduction to proper care and proper usage of floral equipment and media 3. Specific artist styles and techniques using Oriental, European, and Exhibition Styles: Chinese, Japanese, Vertical, Circular, Triangular, and Wear and Carry Designs 4. Demonstrate the process of evaluation and refining floral art projects	Creative Expression 2.1, 2.3, 2.6 Historical & Cultural Context 3.1, 3.4, 3.5 Aesthetic Valuing 4.1, 4.2, 4.3, 4.4	• Create a presentation board displaying basic drawing and layout skills • Create mosaic art designs for floral art using paper and tile. • Create and display flower and foliage media techniques for specific floral art: Mass Flower and Foliage, Filler Flower and Foliage, Line Flower and Foliage, Form Flower and Foliage, Fresh Flower and Foliage, Dry Flower and Foliage, and Artificial Flower and Foliage. • Create a floral project applying mechanics, materials, and media through an introduction to proper care, proper usage, equipment and media. • Create a floral project displaying specific artists' styles and techniques using Oriental, European, and Exhibition Styles • Student will evaluate his/her floral art project and support a position regarding the aesthetic value of the project and either change or defend position after considering views of others

Unit of Instruction/Objectives	VPA Standards	Key Assignments
Unit VII: Connections, Relationships, and Applications Learned in Visual Art **A. Relationships to Other Disciplines** 1. Compare and contrast works of art to other discipline areas	Creative Expression 2.3 Historical & Cultural Context 3.4	• Create a mosaic art design utilizing geometric shapes • Emotional poetic, color influenced project designed visually for floral art • Historical time periods and artistic works written three page report • Design a floral advertisement using art elements, principles, and techniques to display student's work at an art exhibition. • Create a two-dimensional or three-dimensional design incorporating elements and principles as applied to a specific theme and culture.

F. BEHAVIORAL OBJECTIVES FOR FLORAL DESIGN

- Employ senses to perceive and apply the elements and principles of visual design through works of art, objects in nature, events, and the environment
- Explore the role of floral design in human history and culture through creative design concepts in two and three dimensional media, based on floral arranging
- Derive meaning from artworks and floral art designs, including floral symbolism, through analyzing, interpretations, and judgment of various pieces developed by renown artists of different historical and contemporary periods
- Demonstrate skills in utilizing the language of visual arts design as the foundation for creating and analyzing the visual structures and functions of art
- Develop and create original artwork based on relating visual art design concepts and processes to their own personal experiences and lifelong learning

Course Objectives

ARTISTIC PERCEPTION

- *Develop Perceptual Skills and Visual Arts Vocabulary*
  - 1.1 Identify and use the principles of design to discuss, analyze, and write about visual aspects in the environment and in works of art, including their own.
  - 1.2 Describe the principles of design as used in works of art, focusing on dominance and subordination.

- *Analyze Art Elements and Principles of Design*
  - 1.3 Research and analyze the work of an artist and write about the artist's distinctive style and its contribution to the meaning of the work.
  - 1.4 Analyze and describe how the composition of a work of art is affected by the use of a particular principle of design.
- *Impact of Media Choice*
  - 1.5 Analyze the material used by a given artist and describe how its use influences the meaning of the work.
  - 1.6 Compare and contrast similar styles of works of art done in electronic media with those done with materials traditionally used in the visual arts.

2.0 CREATIVE EXPRESSION

- *Skills, Processes, Materials, and Tools*
  - 2.1 Solve a visual arts problem that involves the effective use of the elements of art and the principles of design.
  - 2.2 Prepare a portfolio of original two-and three-dimensional works of art that reflects refined craftsmanship and technical skills.
  - 2.3 Develop and refine skill in the manipulation of digital imagery (either still or video).
  - 2.4 Review and refine observational drawing skills.
- *Communication and Expression Through Original Works of Art*
  - 2.5 Create an expressive composition, focusing on dominance and subordination.
  - 2.6 Create two or three-dimensional work of art that addresses a social issue.

3.0 HISTORICAL AND CULTURAL CONTEXT

- *Role and Development of the Visual Arts*
  - 3.1 Identify similarities and differences in the purposes of art created in selected cultures.
  - 3.2 Identify and describe the role and influence of new technologies on contemporary works of art.
- *Diversity of the Visual Arts*
  - 3.3 Identify and describe trends in the visual arts and discuss how the issues of time, place, and cultural influence are reflected in selected works of art.
  - 3.4 Discuss the purposes of art in selected contemporary cultures.

4.0 AESTHETIC VALUING

- *Derive Meaning*
  - 4.1 Articulate how personal beliefs, cultural traditions, and current social, economic, and political contexts influence the interpretation of the meaning or message in a work of art.
  - 4.2 Compare the ways in which the meaning of a specific work of art has been affected over time because of changes in interpretation and context.
- *Make Informed Judgments*
  - 4.3 Formulate and support a position regarding the aesthetic value of a specific work of art and change or defend that position after considering the views of others.
    4.4 Articulate the process and rationale for refining and reworking one of their own works of art.
  - 4.5 Employ the conventions of art criticism in writing and speaking about works of art.

5.0 CONNECTIONS, RELATIONSHIPS, APPLICATIONS

- *Connections and Applications*
  - 5.2 Create a work of art that communicates a cross-cultural or universal theme taken from literature or history.
- *Visual Literacy*
  - 5.3 Compare and contrast the ways in which different media (television, newspapers, magazines) cover the same art exhibition
- *Careers and Career-Related Skills*

- 5.4 Demonstrate an understanding of the various skills of an artist, art critic, art historian, art collector, art gallery owner, and philosopher of art (aesthetician).

The course objectives are designed to help the students achieve the following Bakersfield High School ESLR's: 1a, b, c, 2a, b, c, d, e, f, and 3 a, b, c, d.

FOUNDATION STANDARDS

1.0 Academics - Students understand the academic content required for entry into postsecondary education and employment in the Agriculture and Natural Resources sector. (The standards listed below retain in parentheses the numbering as specified in the mathematics, science, and history–social science content standards adopted by the State Board of Education.)

1.3 History–Social Science : Specific applications of Principles of Economics standards (grade twelve):
(12.2) Students analyze the elements of America's market economy in a global setting.
(12.2.2) Discuss the effects of changes in supply and/or demand on the relative scarcity, price, and quantity of particular products.
(12.2.3) Explain the roles of property rights, competition, and profit in a market economy.
(12.2.5) Understand the process by which competition among buyers and sellers determines a market price.
(12.2.6) Describe the effect of price controls on buyers and sellers.
(12.2.7) Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products.
(12.2.10) Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.

2.0 Communications: Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts. (The standards listed below retain in parentheses the numbering as specified in the English– language arts content standards adopted by the State Board of Education.)

2.1 Reading: Specific applications of Reading Comprehension standards (grades nine and ten):
(2.1) Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how authors use the features to achieve their purposes.
(2.2) Prepare a bibliography of reference materials for a report using a variety of consumer, workplace, and public documents.
(2.3) Generate relevant questions about readings on issues that can be researched.
(2.6) Demonstrate use of sophisticated learning tools by following technical directions (e.g., those found with graphic calculators and specialized software programs and in access guides to World Wide Web sites on the Internet).

2.2 Writing: Specific applications of Writing Strategies and Applications standards (grades 9-10)
(1.1) Establish a controlling impression or coherent thesis that conveys a clear and distinctive perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.
(1.2) Use precise language, action verbs, sensory details, appropriate modifiers, and the active rather than the passive voice.
(1.3) Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.
(1.5) Synthesize information from multiple sources and identify complexities and discrepancies in the information and the different perspectives found in each medium (e.g., almanacs, microfiche, news sources, in-depth field studies,
speeches, journals, technical documents).
(2.3) Write expository compositions, including analytical essays and research reports:
a. Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.

b. Convey information and ideas from primary and secondary sources accurately and coherently.
c. Make distinctions between the relative value and significance of specific data, facts, and ideas.
d. Include visual aids by employing appropriate technology to organize and record information on charts, maps, and graphs.
e. Anticipate and address readers' potential misunderstandings, biases, and expectations.
f. Use technical terms and notations accurately.

(2.5) Write business letters:
a. Provide clear and purposeful information and address the intended audience appropriately.
b. Use appropriate vocabulary, tone, and style to take into account the nature of the relationship with, and the knowledge and interests of, the recipients.
c. Highlight central ideas or images.
d. Follow a conventional style with page formats, fonts, and spacing that contribute to the documents' readability and impact.

(2.6) Write technical documents (e.g., a manual on rules of behavior for conflict resolution, procedures for conducting a meeting, minutes of a meeting):
a. Report information and convey ideas logically and correctly.
b. Offer detailed and accurate specifications.
c. Include scenarios, definitions, and examples to aid comprehension (e.g., troubleshooting guide).
d. Anticipate readers' problems, mistakes, and misunderstandings.

Specific applications of Writing Strategies and Applications standards (grades eleven and twelve):

(1.3) Structure ideas and arguments in a sustained, persuasive, and sophisticated way and support them with precise and relevant examples.

(1.6) Develop presentations by using clear research questions and creative and critical research strategies (e.g., field studies, oral histories, interviews, experiments, electronic sources).

(1.7) Use systematic strategies to organize and record information (e.g., anecdotal scripting, annotated bibliographies).

(1.8) Integrate databases, graphics, and spreadsheets into word-processed documents.

(2.5) Write job applications and résumés:
a. Provide clear and purposeful information and address the intended audience appropriately.
b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension.
c. Modify the tone to fit the purpose and audience.
d. Follow the conventional style for that type of document (e.g., résumé, memorandum) and use page formats, fonts, and spacing that contribute to the readability and impact of the document.

(2.6) Deliver multimedia presentations:
a. Combine text, images, and sound and draw information from many sources (e.g., television broadcasts, videos, films, newspapers, magazines, CD-ROMs, the Internet, electronic media-generated images).
b. Select an appropriate medium for each element of the presentation.
c. Use the selected media skillfully, editing appropriately and monitoring for quality.
d. Test the audience's response and revise the presentation accordingly.

2.3 Written and Oral English Language Conventions : Specific applications of English Language Conventions standards (grades eleven and twelve):

(1.1) Demonstrate control of grammar, diction, and paragraph and sentence structure and an understanding of English usage.

(1.2) Produce legible work that shows accurate spelling and correct punctuation and capitalization.

(1.3) Reflect appropriate manuscript requirements in writing.

2.4 Listening and Speaking: Specific applications of Listening and Speaking Strategies and Applications standards (grades nine and ten):

(1.1) Formulate judgments about the ideas under discussion and support those judgments with convincing evidence.

(1.7) Use props, visual aids, graphs, and electronic media to enhance the appeal and accuracy of presentations.

(2.2) Deliver expository presentations:

a. Convey information and ideas from primary and secondary sources accurately and coherently.
b. Make distinctions between the relative value and significance of specific data, facts, and ideas.
c. Include visual aids by employing appropriate technology to organize and display information on charts, maps, and graphs.
e. Anticipate and address the listener's potential misunderstandings, biases, and expectations.
f. Use technical terms and notations accurately.

(2.3) Apply appropriate interviewing techniques:
a. Prepare and ask relevant questions.
b. Make notes of responses.
c. Use language that conveys maturity, sensitivity, and respect.
d. Respond correctly and effectively to questions.
e. Demonstrate knowledge of the subject or organization.
f. Compile and report responses.
g. Evaluate the effectiveness of the interview.

Specific applications of Listening and Speaking Strategies and Applications standards (grades 11-12)

(1.8) Use effective and interesting language, including:
a. Informal expressions for effect
b. Standard American English for clarity
c. Technical language for specificity

(1.14) Analyze the techniques used in media messages for a particular audience and evaluate their effectiveness (e.g., Orson Welles' radio broadcast "War of the Worlds").

(2.4) Deliver multimedia presentations:
a. Combine text, images, and sound by incorporating information from a wide range of media, including films, newspapers, magazines, CD-ROMs, online information, television, videos, and electronic media-generated images.
b. Select an appropriate medium for each element of the presentation.
c. Use the selected media skillfully, editing appropriately and monitoring for quality.
d. Test the audience's response and revise the presentation accordingly

Career Technical Standards

3.0 Career Planning and Management

Students understand how to make effective decisions, use career information, and manage personal career plans:

3.1 Know the personal qualifications, interests, aptitudes, information, and skills necessary to succeed in careers.

3.2 Understand the scope of career opportunities and know the requirements for education, training, and licensure.

3.3 Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.

3.4 Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.

3.5 Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.

3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio.

4.0 Technology : Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments:

4.1 Understand past, present, and future technological advances as they relate to a chosen pathway.

4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.

4.3 Understand the influence of current and emerging technology on selected segments of the economy.

4.4 Understand geographic information systems (G.I.S.).

4.5 Determine the validity of the content and evaluate the authenticity, reliability, and bias of electronic and other resources.

4.6 Differentiate among, select, and apply appropriate tools and technology.

5.0 Problem Solving and Critical Thinking : Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, and problem-solving techniques:

5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.

5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.

5.3 Use critical thinking skills to make informed decisions and solve problems.

6.0 Health and Safety : Students understand health and safety policies, procedures, regulations, and practices, including the use of equipment and handling of hazardous materials:

6.1 Know policies, procedures, and regulations regarding health and safety in the workplace, including employers' and employees' responsibilities.

6.2 Understand critical elements of health and safety practices related to storing, cleaning, and maintaining tools, equipment, and supplies.

6.3 Understand how to locate important information on a material safety data sheet.

6.4 Maintain safe and healthful working conditions.

6.5 Use tools and machines safely and appropriately.

6.6 Know how to both prevent and respond to accidents in the agricultural industry.

7.0 Responsibility and Flexibility : Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings:

7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.

7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.

7.3 Understand the need to adapt to varied roles and responsibilities.

7.4 Understand that individual actions can affect the larger community.

7.5 Understand the importance of time management to fulfill responsibilities.

7.6 Know how to apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.

8.0 Ethics and Legal Responsibilities: Students understand professional, ethical, and legal behavior consistent with applicable laws, regulations, and organizational norms:

8.1 Know the major local, district, state, and federal regulatory agencies and entities that affect the industry and how they enforce laws and regulations.

8.2 Understand the concept and application of ethical and legal behavior consistent with workplace standards.

8.3 Understand the role of personal integrity and ethical behavior in the workplace.

8.4 Understand how to access, analyze, and implement quality assurance information.

9.0 Leadership and Teamwork : Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution:

9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.

9.2 Understand the ways in which preprofessional associations, such as the Future Farmers of America (FFA), and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.

9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.

9.4 Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.

9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.

9.6 Understand leadership, cooperation, collaboration, and effective decision-making skills applied in group or team activities, including the student organization.

10.0 Technical Knowledge and Skills : Students understand the essential knowledge and skills common to all pathways in the Agriculture and Natural Resources sector:
10.1 Understand the aims, purposes, history, and structure of the FFA student organization, and know the opportunities it makes available.
10.2 Manage and actively engage in a career-related, supervised agricultural experience.
10.3 Understand the importance of maintaining and completing the California Agricultural Record Book.
10.4 Maintain and troubleshoot equipment used in the agricultural industry.
11.0 Demonstration and Application : Students demonstrate and apply the concepts contained in the foundation and pathway standards.

CTE Course Standards as relevant to past and/or current agriculture course enrollment will be applied and enforced as related to the subject areas addressed in the course outline above.

G. ASSESSMENT PROCEDURES

1. The students will be assessed on the following:
   a. Daily Participation (Journals, Timecards, etc…) 15%
   b. Leadership (FFA) 15%
   c. Classwork/Homework 30%
   d. Quizzes/Tests/Floral Design Assessments 25%
   e. Supervised Agriculture Experience Project& Record Keeping 15%

Semester Grades are based on the following:

Quarter 1	**45%**
Quarter 2	**45%**
Final	**10%**

**** Semester final is a project incorporated in the second quarter grade.**

Kern High School District
Office of Instruction

DPC#: _____
Approved by Board: _____

District Wide Course of Study Title:

Agriculture Government

A. COURSE INFORMATION

Grade Level: 12

Length of Course: 1 Semester

Maximum Credit: 5

Type:
Recommendation for Enrollment: Students should have completed 2-3 years of agriculture courses in their designated agriculture career pathway, OR they should receive the consent of the instructor.

COURSE DESCRIPTION

This course is designed to familiarize students with the structure and processes of the United States Government system. Students will learn about the responsibilities and rights of citizenship, voting, political, parties, elections, campaigns, the Constitution, the branches of government, and the Bill of Rights. Students will also learn about state powers as it compares to the national government powers, and be introduced to world leadership. Students will study and discuss agricultural issues and what role the government system plays in the agricultural industry.

B. INSTRUCTIONAL MATERIALS

Magruder's American Government; Prentice Hall
We the People: Center for Civic Education 2009

Supplemental Materials

American Government Readings and Case Studies. Little Brown and Co. 1989
The Federalist Papers. New American Library/Mentor
The U.S. Farm Bill latest revised Edition
Exploring Farm Cooperatives Agric. Council of CA 2003
Agribusiness Fundamentals and Applications Delmar Cengage Learning. 2009

C. COURSE OUTLINE

Ag Government

A) The Constitution
   1) Development of Government
      a) Civic Republicanism
      b) Religious tolerance
      c) Spirit of individualism
      d) Philosophy of natural rights
      e) Established church
      f) Wide ownership of land
      g) Rural society
   2) Evolution of the Constitution
      a) Majority rule/Minority rights
      b) Large state/Small states
      c) Popular rule/knowledgeable elite rule
      d) Essential Principles
      e) Separation of power
      f) Checks /Balances
      g) Federalism
      h) Equal representation
      i) Due process
      j) Popular sovereignty
      k) Individual rights/responsibilities
      l) Common shared values

B) American Government
   1) Structure
   2) Congress
   3) Presidency
   4) Bureaucracy
   5) Judiciary
   6) Other political parties

C) Mechanics of Congressional Bills
   1) From an Idea to Law
   2) Responsibilities of the Speaker of the House
   3) Parliamentary Procedure

D) Civil Liberties
   1) Social context
      a) Socioeconomic status
      b) Race
      c) Sex
      d) Religion
      e) Age
      f) Region
   2) Public Opinion
      a) Party identification
      b) Political ideology
      c) Attitudes
   3) Elections
      a) Nomination process
      b) Voting
      c) Volunteerism
      d) Democratic features

e) Funding
4) Bill of Rights
a) Freedom of speech
b) Freedom of press
c) Right to assembly
d) Freedom of religion
e) Due process
f) Limit of power
5) Individual Freedoms/Public Necessity
a) Crime
b) Discrimination
c) Eminent domain
d) Taxes
e) Defense
f) Schooling

E) Federalism
1) Structure
a) Federal government officers
b) State government officers
c) Local government officers
d) Functions
e) Court systems
f) Law enforcement
2) Federal/State Government
a) Reserve powers
b) Incorporation
c) Jurisdiction
d) Resources
3) Federal/State Legal System
a) Criminal/Civil matters
b) Family/Juvenile Law
4) Role of Local Government
a) Education
b) Crime
c) Taxes
(1) Regulation
5) Agribusiness Taxation
6) Introduction to Taxes
7) Income Tax Management

F) Agriculture Policy
1) Domestic International Issues
2) Preoccupation with security
3) Government influence

G) Agriculture Law
1) Historical & Current Sources of Law
2) Regulatory Agencies
3) Laws Affecting Ag Enterprises
4) Labor Law
5) Ag. Property Rights
6) Farm Leases
7) Ag. Liability Laws
8) Air and Water

H) Global Marketing and Trade
1) World government

a) Structure
b) Goals
c) Objectives

2) National Policy/World Leadership
a) War
b) Treaties
c) Trade

3) Food Security Issues

I) FFA/SAE/Leadership (ongoing)

D. ***COURSE OBJECTIVES FOR***

After completion of this course students will:

1. Understand the activities that lead to the development of our government, the evolution of the Constitution, and the essential principles of the structure of our government.
2. Students will be able to distinguish between the branches of government and identify the duties of each branch.
3. Students will be able to identify the social context and public opinion of our government system.
4. Students will be able to outline the process of election.
5. Students will understand the Bill of Rights and explain the meaning and implication of each right in our society.
6. Students will be able to distinguish between the powers of state government and the national government.
7. Students will recognize the role of tariffs and quotas as they relate to international agriculture trade and economic development.
8. Students understand how government organizations affect agriculture and the characteristics of and differences between national and international trade.
9. Students understand how government organizations affect agriculture and the characteristics of and differences between national and international trade.
10. Students will understand economic principles as they relate to agribusiness.
11. Students will be able to make management decisions based on their analysis and interpretation of economic information using the appropriate technology.
12. Student should be able to distinguish the differences between agricultural and industrial production.
13. Students will recognize the role of tariffs and quotas as they relate to international agriculture trade and economic development.
14. Students will distinguish between rural and urban problems in resource development.

Foundation Standards

1.1 Mathematics : Specific applications of Algebra I standards (grades eight through twelve):

(10.0) Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.

(12.0) Students simplify fractions with polynomials in the numerator and denominator by factoring both and reducing them to the lowest terms.

(13.0) Students add, subtract, multiply, and divide rational expressions and functions. Students solve both computationally and conceptually challenging problems by using these techniques.

(15.0) Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

Specific applications of Geometry standards (grades eight through twelve):

(8.0) Students know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures.

(10.0) Students compute areas of polygons, including rectangles, scalene triangles, equilateral triangles, rhombi, parallelograms, and trapezoids.
(11.0) Students determine how changes in dimensions affect the perimeter, area, and volume of common geometric figures and solids.
(12.0) Students find and use measures of sides and of interior and exterior angles of triangles and polygons to classify figures and solve problems.

Specific applications of Probability and Statistics standards (grades eight through twelve):

(8.0) Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

1.2 Science : Specific applications of Investigation and Experimentation standards (grades nine through twelve):

(1.a) Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.
(1.c) Identify possible reasons for inconsistent results, such as sources of error or uncontrolled conditions.
(1.d) Formulate explanations by using logic and evidence.
(1.f) Distinguish between hypothesis and theory as scientific terms.
(1.j) Recognize the issues of statistical variability and the need for controlled tests.
(1.l) Analyze situations and solve problems that require combining and applying concepts from more than one area of science.
(1.m) Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

1.3 History–Social Science : Specific applications of Principles of Economics standards (grade twelve):

(12.2) Students analyze the elements of America's market economy in a global setting.
(12.2.2) Discuss the effects of changes in supply and/or demand on the relative scarcity, price, and quantity of particular products.
(12.2.3) Explain the roles of property rights, competition, and profit in a market economy.
(12.2.5) Understand the process by which competition among buyers and sellers determines a market price.
(12.2.6) Describe the effect of price controls on buyers and sellers.
(12.2.7) Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products.
(12.2.10) Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.
(12.4) Students analyze the elements of the U.S. labor market in a global setting.
(12.4.3) Discuss wage differences among jobs and professions, using the laws of demand and supply and the concept of productivity.

2.0 Communications: Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts. (The standards listed below retain in parentheses the numbering as specified in the English– language arts content standards adopted by the State Board of Education.)

2.1 Reading: Specific applications of Reading Comprehension standards (grades nine and ten):

(2.1) Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how authors use the features to achieve their purposes.
(2.2) Prepare a bibliography of reference materials for a report using a variety of consumer, workplace, and public documents.
(2.3) Generate relevant questions about readings on issues that can be researched.
(2.6) Demonstrate use of sophisticated learning tools by following technical directions (e.g., those found with graphic calculators and specialized software programs and in access guides to World Wide Web sites on the Internet).
(2.7) Critique the logic of functional documents by examining the sequence of information and procedures in anticipation of possible reader misunderstandings.
(2.8) Evaluate the credibility of an author's argument or defense of a claim by critiquing the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's

intent affects the structure and tone of the text (e.g., in professional journals, editorials, political speeches, primary source material).

Specific applications of Reading Comprehension standards (grades eleven and twelve):

(2.1) Analyze both the features and the rhetorical devices of different types of public documents (e.g., policy statements, speeches, debates, platforms) and the way in which authors use those features and devices.

(2.3) Verify and clarify facts presented in other types of expository texts by using a variety of consumer, workplace, and public documents.

(2.4) Make warranted and reasonable assertions about the author's arguments by using elements of the text to defend and clarify interpretations.

2.2 Writing: Specific applications of Writing Strategies and Applications standards (grades 9-10)

(1.1) Establish a controlling impression or coherent thesis that conveys a clear and distinctive perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.

(1.2) Use precise language, action verbs, sensory details, appropriate modifiers, and the active rather than the passive voice.

(1.3) Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.

(1.5) Synthesize information from multiple sources and identify complexities and discrepancies in the information and the different perspectives found in each medium (e.g., almanacs, microfiche, news sources, in-depth field studies,
speeches, journals, technical documents).

(2.3) Write expository compositions, including analytical essays and research reports:

a. Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.

b. Convey information and ideas from primary and secondary sources accurately and coherently.

c. Make distinctions between the relative value and significance of specific data, facts, and ideas.

d. Include visual aids by employing appropriate technology to organize and record information on charts, maps, and graphs.

e. Anticipate and address readers' potential misunderstandings, biases, and expectations.

f. Use technical terms and notations accurately.

(2.5) Write business letters:

a. Provide clear and purposeful information and address the intended audience appropriately.

b. Use appropriate vocabulary, tone, and style to take into account the nature of the relationship with, and the knowledge and interests of, the recipients.

c. Highlight central ideas or images.

d. Follow a conventional style with page formats, fonts, and spacing that contribute to the documents' readability and impact.

(2.6) Write technical documents (e.g., a manual on rules of behavior for conflict resolution, procedures for conducting a meeting, minutes of a meeting):

a. Report information and convey ideas logically and correctly.

b. Offer detailed and accurate specifications.

c. Include scenarios, definitions, and examples to aid comprehension (e.g., troubleshooting guide).

d. Anticipate readers' problems, mistakes, and misunderstandings.

Specific applications of Writing Strategies and Applications standards (grades eleven and twelve):

(1.3) Structure ideas and arguments in a sustained, persuasive, and sophisticated way and support them with precise and relevant examples.

(1.6) Develop presentations by using clear research questions and creative and critical research strategies (e.g., field studies, oral histories, interviews, experiments, electronic sources).

(1.7) Use systematic strategies to organize and record information (e.g., anecdotal scripting, annotated bibliographies).

(1.8) Integrate databases, graphics, and spreadsheets into word-processed documents.

(2.5) Write job applications and résumés:

a. Provide clear and purposeful information and address the intended audience appropriately.

b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension.

c. Modify the tone to fit the purpose and audience.

d. Follow the conventional style for that type of document (e.g., résumé, memorandum) and use page formats, fonts, and spacing that contribute to the readability and impact of the document.

(2.6) Deliver multimedia presentations:

a. Combine text, images, and sound and draw information from many sources (e.g., television broadcasts, videos, films, newspapers, magazines, CD-ROMs, the Internet, electronic media-generated images).

b. Select an appropriate medium for each element of the presentation.

c. Use the selected media skillfully, editing appropriately and monitoring for quality.

d. Test the audience's response and revise the presentation accordingly.

2.3 Written and Oral English Language Conventions : Specific applications of English Language Conventions standards (grades eleven and twelve):

(1.1) Demonstrate control of grammar, diction, and paragraph and sentence structure and an understanding of English usage.

(1.2) Produce legible work that shows accurate spelling and correct punctuation and capitalization.

(1.3) Reflect appropriate manuscript requirements in writing.

2.4 Listening and Speaking: Specific applications of Listening and Speaking Strategies and Applications standards (grades nine and ten):

(1.1) Formulate judgments about the ideas under discussion and support those judgments with convincing evidence.

(1.7) Use props, visual aids, graphs, and electronic media to enhance the appeal and accuracy of presentations.

(2.2) Deliver expository presentations:

a. Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.

b. Convey information and ideas from primary and secondary sources accurately and coherently.

c. Make distinctions between the relative value and significance of specific data, facts, and ideas.

d. Include visual aids by employing appropriate technology to organize and display information on charts, maps, and graphs.

e. Anticipate and address the listener's potential misunderstandings, biases, and expectations.

f. Use technical terms and notations accurately.

(2.3) Apply appropriate interviewing techniques:

a. Prepare and ask relevant questions.

b. Make notes of responses.

c. Use language that conveys maturity, sensitivity, and respect.

d. Respond correctly and effectively to questions.

e. Demonstrate knowledge of the subject or organization.

f. Compile and report responses.

g. Evaluate the effectiveness of the interview.

Specific applications of Listening and Speaking Strategies and Applications standards (grades 11-12)

(1.8) Use effective and interesting language, including:

a. Informal expressions for effect

b. Standard American English for clarity

c. Technical language for specificity

(1.14) Analyze the techniques used in media messages for a particular audience and evaluate their effectiveness (e.g., Orson Welles' radio broadcast "War of the Worlds").

(2.4) Deliver multimedia presentations:

a. Combine text, images, and sound by incorporating information from a wide range of media, including films, newspapers, magazines, CD-ROMs, online information, television, videos, and electronic media-generated images.

b. Select an appropriate medium for each element of the presentation.

c. Use the selected media skillfully, editing appropriately and monitoring for quality.

d. Test the audience's response and revise the presentation accordingly

3.0 Career Planning and Management

Students understand how to make effective decisions, use career information, and manage personal career plans:

3.1 Know the personal qualifications, interests, aptitudes, information, and skills necessary to succeed in careers.
3.2 Understand the scope of career opportunities and know the requirements for education, training, and licensure.
3.3 Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.
3.4 Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.
3.5 Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.
3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio.

4.0 Technology : Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments:

4.1 Understand past, present, and future technological advances as they relate to a chosen pathway.
4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.
4.3 Understand the influence of current and emerging technology on selected segments of the economy.
4.4 Understand geographic information systems (G.I.S.).
4.5 Determine the validity of the content and evaluate the authenticity, reliability, and bias of electronic and other resources.
4.6 Differentiate among, select, and apply appropriate tools and technology.

5.0 Problem Solving and Critical Thinking : Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, and problem-solving techniques:

5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.
5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.
5.3 Use critical thinking skills to make informed decisions and solve problems.

6.0 Health and Safety : Students understand health and safety policies, procedures, regulations, and practices, including the use of equipment and handling of hazardous materials:

6.1 Know policies, procedures, and regulations regarding health and safety in the workplace, including employers' and employees' responsibilities.
6.2 Understand critical elements of health and safety practices related to storing, cleaning, and maintaining tools, equipment, and supplies.
6.3 Understand how to locate important information on a material safety data sheet.
6.4 Maintain safe and healthful working conditions.
6.5 Use tools and machines safely and appropriately.
6.6 Know how to both prevent and respond to accidents in the agricultural industry.

7.0 Responsibility and Flexibility : Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings:

7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.
7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.
7.3 Understand the need to adapt to varied roles and responsibilities.
7.4 Understand that individual actions can affect the larger community.
7.5 Understand the importance of time management to fulfill responsibilities.
7.6 Know how to apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.

8.0 Ethics and Legal Responsibilities: Students understand professional, ethical, and legal behavior consistent with applicable laws, regulations, and organizational norms:

8.1 Know the major local, district, state, and federal regulatory agencies and entities that affect the industry and how they enforce laws and regulations.
8.2 Understand the concept and application of ethical and legal behavior consistent with workplace standards.
8.3 Understand the role of personal integrity and ethical behavior in the workplace.

8.4 Understand how to access, analyze, and implement quality assurance information.

9.0 Leadership and Teamwork : Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution:

9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.

9.2 Understand the ways in which preprofessional associations, such as the Future Farmers of America (FFA), and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.

9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.

9.4 Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.

9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.

9.6 Understand leadership, cooperation, collaboration, and effective decision-making skills applied in group or team activities, including the student organization.

10.0 Technical Knowledge and Skills : Students understand the essential knowledge and skills common to all pathways in the Agriculture and Natural Resources sector:

10.1 Understand the aims, purposes, history, and structure of the FFA student organization, and know the opportunities it makes available.

10.2 Manage and actively engage in a career-related, supervised agricultural experience.

10.3 Understand the importance of maintaining and completing the California Agricultural Record Book.

10.4 Maintain and troubleshoot equipment used in the agricultural industry.

11.0 Demonstration and Application : Students demonstrate and apply the concepts contained in the foundation and pathway standards.

Agricultural Business Pathway: In the Agricultural Business Pathway, students learn about agricultural business operation and management. Topics include accounting, finance, economics, business organization, marketing, and sales.

A1.0 Students understand decision-making processes within the American free enterprise system:

- A1.1 Differentiate among the components of the American free enterprise system and other forms of economic systems.
- A1.2 Distinguish among the main characteristics of individual proprietorships, partnerships, corporations, and cooperatives.
- A1.3 Understand the advantages and disadvantages of the four types of business ownership.
- A1.4 Analyze appropriate decision-making tools and financial records to make key management decisions.
- A1.5 Analyze physical production relationships to determine optimum use levels.
- A1.6 Understand how to calculate the fixed and variable costs associated with the production of agricultural products and determine the output level that will yield maximum profit.

A2.0 Students understand the fundamental economic principles of agribusiness and agricultural production:

- A2.1 Understand how basic economic factors affect agricultural production and agribusiness management decisions.
- A2.2 Know basic agricultural economic terminology.
- A2.3 Understand the law of supply and demand as it effects price determination.
- A2.4 Analyze how agriculture uses scarce resources to meet the needs and demands of its consumers.
- A2.5 Differentiate between elastic and inelastic supply and demand.
- A2.6 Understand the law of diminishing returns and its impact on agricultural production.

A3.0 Students understand the role of credit in agribusiness and agricultural production:

- A3.1 Analyze the factors that determine the cost of credit in order to select optimum credit sources (e.g., the advantages and disadvantages of borrowing from the various types of credit providers and sources for short-, intermediate-, and long-term credit).
- A3.2 Know the criteria lenders use to evaluate repayment capacity.
- A3.3 Analyze balance sheets and cash-flow statements to determine the ability to repay loans.

A4.0 Students understand proper accounting principles and procedures used in business management and tax planning:

A4.1 Understand the differences between cash and accrual accounting systems.
A4.2 Understand the use and importance of budgets, income statements, balance sheets, and financial statements.
A4.3 Understand the basis of taxation within the tax system and its impact on the economy, including the role of taxes in agribusiness.
A4.4 Analyze the role of depreciation and purchasing in tax planning and liability.
A4.5 Understand how to determine property values and how to complete a depreciation schedule.
A4.6 Understand how to determine the tax obligations for an agribusiness.

A5.0 Students understand basic risk management principles and their impact on economic viability:
A5.1 Understand environmental responsibility and its impact on agribusiness.
A5.2 Understand the concept of liability and the economic impact of being held liable.
A5.3 Understand the concept and process of risk management, including the use of risk management tools such as insurance.
A5.4 Understand how recordkeeping, farm plans, and an analysis of best practices affect risk management decisions.
A5.5 Understand the role of contingency plans in risk management.

A6.0 Students understand the role and value of agricultural organizations:
A6.1 Understand the benefits of private, public, and governmental organizations, including the value and impact of cooperatives.
A6.2 Understand how participation within organizations would be beneficial in supporting various agricultural operations.
A6.3 Understand how to identify and electronically access public and private agricultural organizations.

A7.0 Students understand agricultural marketing systems:
A7.1 Understand how marketing functions in a free market society.
A7.2 Understand the advantages and disadvantages of the various marketing options for agricultural products and services.
A7.3 Understand how the law of comparative advantage affects agricultural production.
A7.4 Understand the impact of advertising and promotion on the marketing of agricultural products and services.
A7.5 Understand how promotion trends for agricultural products influence individuals.
A7.6 Understand how to develop a marketing plan for an agricultural product or service.

A8.0 Students understand the sales of agricultural products and services:
A8.1 Determine the most effective methods for assessing customer needs and wants.
A8.2 Understand the stages in making a successful sale and the various techniques used to approach potential customers and overcome their objections.
A8.3 Examine the physiological and psychological factors that influence motivation to purchase, including the fundamental steps in making a purchase.

A9.0 Students understand local, national, and international agricultural markets and how trade affects the economy:
A9.1 Understand how the importance of agricultural imports and exports affects state and national economies.
A9.2 Know how governmental, economic, and cultural factors affect international trade.
A9.3 Compare and contrast United States trade policies with those of other important trading partners.
A9.4 Understand how biotechnology affects trade and global economies.
A9.5 Understand how different cultural values affect agricultural production and marketing.
A9.6 Understand how negotiations and bargaining agreements affect trade agreements.
A9.7 Analyze agricultural marketing strategies in other parts of the world.

C. Agriscience Pathway

C1.0 Students understand the role of agriculture in the California economy:
C1.1 Understand the history of the agricultural industry in California.
C1.3 Understand the interrelationship of California agriculture and society at the local, state, national, and international levels.
C2.1 Understand important agricultural environmental impacts on soil, water, and air.
C2.2 Understand current agricultural environmental challenges.

C3.2 Understand how technology influences factors such as labor, efficiency, diversity, availability, mechanization, communication, and so forth.

C3.4 Understand the laws and regulations concerning biotechnology.

C4.4 Understand various points of view regarding the use of animals.

E. Forestry and Natural Resources Pathway

E1.4 Compare the effects on air and water quality of using different forms of energy.

E2.0 Students understand air and water use, management practices, and conservation strategies:

E2.1 Understand the government's role in regulating air, soil, and water use management practices and conservation strategies.

E13.3 Understand the role of public and private property rights and how they affect agriculture.

E13.4 Understand the role of government in managing public and private property rights.

G. Plant and Soil Science Pathway

G8.1 Understand California water history, current issues, water rights, water law, and water transfer through different distribution projects throughout the state.

G8.2 Understand the local, state, and federal agencies that regulate water quality and availability in California.

Principles of American Democracy

12.1 Students explain the fundamental principles and moral values of American democracy as expressed in the U.S. Constitution and other essential documents of American democracy.

1. Analyze the influence of ancient Greek, Roman, English, and leading European political thinkers such as John Locke, Charles-Louis Montesquieu, Niccolò Machiavelli, and William Blackstone on the development of American government.
2. Discuss the character of American democracy and its promise and perils as articulated by Alexis de Tocqueville.
3. Explain how the U.S. Constitution reflects a balance between the classical republican concern with promotion of the public good and the classical liberal concern with protecting individual rights; and discuss how the basic premises of liberal constitutionalism and democracy are joined in the Declaration of Independence as "self-evident truths."
4. Explain how the Founding Fathers' realistic view of human nature led directly to the establishment of a constitutional system that limited the power of the governors and the governed as articulated in the *Federalist Papers.*
5. Describe the systems of separated and shared powers, the role of organized interests (Federalist *Paper Number 10),* checks and balances (Federalist *Paper Number 51),* the importance of an independent judiciary (Federalist *Paper Number 78),* enumerated powers, rule of law, federalism, and civilian control of the military.
6. Understand that the Bill of Rights limits the powers of the federal government and state governments.

12.2 Students evaluate and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured.

1. Discuss the meaning and importance of each of the rights guaranteed under the Bill of Rights and how each is secured (e.g., freedom of religion, speech, press, assembly, petition, privacy).
2. Explain how economic rights are secured and their importance to the individual and to society (e.g., the right to acquire, use, transfer, and dispose of property; right to choose one's work; right to join or not join labor unions; copyright and patent).
3. Discuss the individual's legal obligations to obey the law, serve as a juror, and pay taxes.
4. Understand the obligations of civic-mindedness, including voting, being informed on civic issues, volunteering and performing public service, and serving in the military or alternative service.
5. Describe the reciprocity between rights and obligations; that is, why enjoyment of one's rights entails respect for the rights of others.
6. Explain how one becomes a citizen of the United States, including the process of naturalization (e.g., literacy, language, and other requirements).

12.3 Students evaluate and take and defend positions on what the fundamental values and principles of civil society are (i.e., the autonomous sphere of voluntary personal, social, and economic relations that are not part of government), their interdependence, and the meaning and importance of those values and principles for a free society.

1. Explain how civil society provides opportunities for individuals to associate for social, cultural, religious, economic, and political purposes.
2. Explain how civil society makes it possible for people, individually or in association with others, to bring their influence to bear on government in ways other than voting and elections.
3. Discuss the historical role of religion and religious diversity.
4. Compare the relationship of government and civil society in constitutional democracies to the relationship of government and civil society in authoritarian and totalitarian regimes.

12.4 Students analyze the unique roles and responsibilities of the three branches of government as established by the U.S. Constitution.

1. Discuss Article I of the Constitution as it relates to the legislative branch, including eligibility for office and lengths of terms of representatives and senators; election to office; the roles of the House and Senate in impeachment proceedings; the role of the vice president; the enumerated legislative powers; and the process by which a bill becomes a law.
2. Explain the process through which the Constitution can be amended.
3. Identify their current representatives in the legislative branch of the national government.
4. Discuss Article II of the Constitution as it relates to the executive branch, including eligibility for office and length of term, election to and removal from office, the oath of office, and the enumerated executive powers.
5. Discuss Article III of the Constitution as it relates to judicial power, including the length of terms of judges and the jurisdiction of the Supreme Court.
6. Explain the processes of selection and confirmation of Supreme Court justices.

12.5 Students summarize landmark U.S. Supreme Court interpretations of the Constitution and its amendments.

1. Understand the changing interpretations of the Bill of Rights over time, including interpretations of the basic freedoms (religion, speech, press, petition, and assembly) articulated in the First Amendment and the due process and equal-protection-of-the-law clauses of the Fourteenth Amendment.
2. Analyze judicial activism and judicial restraint and the effects of each policy over the decades (e.g., the Warren and Rehnquist courts).
3. Evaluate the effects of the Court's interpretations of the Constitution in *Marbury* v. *Madison, McCulloch* v. *Maryland,* and *United States* v. *Nixon,* with emphasis on the arguments espoused by each side in these cases.
4. Explain the controversies that have resulted over changing interpretations of civil rights, including those in *Plessy* v. *Ferguson, Brown* v. *Board of Education, Miranda* v. *Arizona, Regents of the University of California* v. *Bakke, Adarand Constructors, Inc.* v. *Pena,* and *United States* v. *Virginia* (VMI).

12.6 Students evaluate issues regarding campaigns for national, state, and local elective offices.

1. Analyze the origin, development, and role of political parties, noting those occasional periods in which there was only one major party or were more than two major parties.
2. Discuss the history of the nomination process for presidential candidates and the increasing importance of primaries in general elections.
3. Evaluate the roles of polls, campaign advertising, and the controversies over campaign funding.
4. Describe the means that citizens use to participate in the political process (e.g., voting, campaigning, lobbying, filing a legal challenge, demonstrating, petitioning, picketing, running for political office).
5. Discuss the features of direct democracy in numerous states (e.g., the process of referendums, recall elections).
6. Analyze trends in voter turnout; the causes and effects of reapportionment and redistricting, with special attention to spatial districting and the rights of minorities; and the function of the Electoral College.

12.7 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments.

1. Explain how conflicts between levels of government and branches of government are resolved.
2. Identify the major responsibilities and sources of revenue for state and local governments.

3. Discuss reserved powers and concurrent powers of state governments.
4. Discuss the Ninth and Tenth Amendments and interpretations of the extent of the federal government's power.
5. Explain how public policy is formed, including the setting of the public agenda and implementation of it through regulations and executive orders.
6. Compare the processes of lawmaking at each of the three levels of government, including the role of lobbying and the media.
7. Identify the organization and jurisdiction of federal, state, and local (e.g., California) courts and the interrelationships among them.
8. Understand the scope of presidential power and decision making through examination of case studies such as the Cuban Missile Crisis, passage of Great Society legislation, War Powers Act, Gulf War, and Bosnia.

12.8 Students evaluate and take and defend positions on the influence of the media on American political life.

1. Discuss the meaning and importance of a free and responsible press.
2. Describe the roles of broadcast, print, and electronic media, including the Internet, as means of communication in American politics.
3. Explain how public officials use the media to communicate with the citizenry and to shape public opinion.

12.9 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances, and its obstacles.

1. Explain how the different philosophies and structures of feudalism, mercantilism, socialism, fascism, communism, monarchies, parliamentary systems, and constitutional liberal democracies influence economic policies, social welfare policies, and human rights practices.
2. Compare the various ways in which power is distributed, shared, and limited in systems of shared powers and in parliamentary systems, including the influence and role of parliamentary leaders (e.g., William Gladstone, Margaret Thatcher).
3. Discuss the advantages and disadvantages of federal, con federal, and unitary systems of government.
4. Describe for at least two countries the consequences of conditions that gave rise to tyrannies during certain periods (e.g., Italy, Japan, Haiti, Nigeria, Cambodia).
5. Identify the forms of illegitimate power that twentieth-century African, Asian, and Latin American dictators used to gain and hold office and the conditions and interests that supported them.
6. Identify the ideologies, causes, stages, and outcomes of major Mexican, Central American, and South American revolutions in the nineteenth and twentieth centuries.
7. Describe the ideologies that give rise to Communism, methods of maintaining control, and the movements to overthrow such governments in Czechoslovakia, Hungary, and Poland, including the roles of individuals (e.g., Alexander Solzhenitsyn, Pope John Paul II, Lech Walesa, Vaclav Havel).
8. Identify the successes of relatively new democracies in Africa, Asia, and Latin America and the ideas, leaders, and general societal conditions that have launched and sustained, or failed to sustain, them.

12.10 Students formulate questions about and defend their analyses of tensions within our constitutional democracy and the importance of maintaining a balance between the following concepts: majority rule and individual rights; liberty and equality; state and national authority in a federal system; civil disobedience and the rule of law; freedom of the press and the right to a fair trial; the relationship of religion and government.

Principles of Economics

12.1 Students understand common economic terms and concepts and economic reasoning.

1. Examine the causal relationship between scarcity and the need for choices.
2. Explain opportunity cost and marginal benefit and marginal cost.
3. Identify the difference between monetary and non monetary incentives and how changes in incentives cause changes in behavior.
4. Evaluate the role of private property as an incentive in conserving and improving scarce resources, including renewable and nonrenewable natural resources.
5. Analyze the role of a market economy in establishing and preserving political and personal liberty (e.g., through the works of Adam Smith).

12.2 Students analyze the elements of America's market economy in a global setting.

1. Understand the relationship of the concept of incentives to the law of supply and the relationship of the concept of incentives and substitutes to the law of demand.
2. Discuss the effects of changes in supply and/ or demand on the relative scarcity, price, and quantity of particular products.
3. Explain the roles of property rights, competition, and profit in a market economy.
4. Explain how prices reflect the relative scarcity of goods and services and perform the allocative function in a market economy.
5. Understand the process by which competition among buyers and sellers determines a market price.
6. Describe the effect of price controls on buyers and sellers.
7. Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products.
8. Explain the role of profit as the incentive to entrepreneurs in a market economy.
9. Describe the functions of the financial markets.
10. Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.

12.3 Students analyze the influence of the federal government on the American economy.

1. Understand how the role of government in a market economy often includes providing for national defense, addressing environmental concerns, defining and enforcing property rights, attempting to make markets more competitive, and protecting consumers' rights.
2. Identify the factors that may cause the costs of government actions to outweigh the benefits.
3. Describe the aims of government fiscal policies (taxation, borrowing, spending) and their influence on production, employment, and price levels.
4. Understand the aims and tools of monetary policy and their influence on economic activity (e.g., the Federal Reserve).

12.4 Students analyze the elements of the U.S. labor market in a global setting.

1. Understand the operations of the labor market, including the circumstances surrounding the establishment of principal American labor unions, procedures that unions use to gain benefits for their members, the effects of unionization, the mini-mum wage, and unemployment insurance.
2. Describe the current economy and labor market, including the types of goods and services produced, the types of skills workers need, the effects of rapid technological change, and the impact of international competition.
3. Discuss wage differences among jobs and professions, using the laws of demand and supply and the concept of productivity.
4. Explain the effects of international mobility of capital and labor on the U.S. economy.

12.5 Students analyze the aggregate economic behavior of the U.S. economy.

1. Distinguish between nominal and real data.
2. Define, calculate, and explain the significance of an unemployment rate, the number of new jobs created monthly, an inflation or deflation rate, and a rate of economic growth.
3. Distinguish between short-term and long-term interest rates and explain their relative significance.

12.6 Students analyze issues of international trade and explain how the U.S. economy affects, and is affected by, economic forces beyond the United States's borders.

1. Identify the gains in consumption and production efficiency from trade, with emphasis on the main products and changing geographic patterns of twentieth-century trade among countries in the Western Hemisphere.
2. Compare the reasons for and the effects of trade restrictions during the Great Depression compared with present-day arguments among labor, business, and political leaders over the effects of free trade on the economic and social interests of various groups of Americans.
3. Understand the changing role of international political borders and territorial sovereignty in a global economy.
4. Explain foreign exchange, the manner in which exchange rates are determined, and the effects of the dollar's gaining (or losing) value relative to other currencies.
5.

E. STUDENT EVALUATION STANDARDS

Homework/Class work	**
Supervised Agriculture Experience Program	**
FFA – Leadership	**
Quizzes & Tests	**
Participation/Career Readiness	**

**Weighting is based on individual school sites.

SEMESTER BREAKDOWN:

Quarter 1 = 40%

Quarter 2 = 40%

Final = 20%

F. SUGGESTED INSTRUCTIONAL ACTIVITIES

Prepared By: Elizabeth Bledsoe, Clay Freeman, Amy Mertz

Kern High School District
Office of Instruction

DPC#: _____
Approved by Board: _____

District Wide Course of Study Title:

Agriculture Economics

A. COURSE INFORMATION

Grade Level: 12

Length of Course: 1 Semester

Maximum Credit: 5

Type:
Recommendation for Enrollment: Students should have completed 2-3 years of agriculture courses in their designated agriculture career pathway, OR they should receive the consent of the instructor.

COURSE DESCRIPTION This class is a survey and basic understanding of the economics of the agriculture industry. It is an introduction to the economic aspects of agriculture and their implications to the agricultural producer, consumer and the food system. The management principles encountered in the day to day operation of an agricultural enterprise are stressed as they relate to the decision making process. Students will study and discuss agricultural issues and what role economic systems play in the agricultural industry.

B. INSTRUCTIONAL MATERIALS

Economics Principles in Action: Prentice Hall 2001

Supplemental Materials
The U.S. Farm Bill latest revised Edition
Exploring Farm Cooperatives Agric. Council of CA 2003
Agribusiness Fundamentals and Applications Delmar Cengage Learning. 2009

C. COURSE OUTLINE

Ag. Economics

A) Definition of Economics
   1) Economic goods and services
   2) Opportunity costs
   3) Goals of the American Economy
B) Role of Economics
   1) Historical development of the role of agricultural economic policy in the U.S.
   2) Relationships of the agricultural economy to the general U.S. economy
C) Introduction to Economics, Agricultural Economics, and Economic Growth
   1) Scarcity

2) Role of labor
3) Role of Capital
4) Role of technology

D) Role of Natural Resources in Economic Growth
1) Land
2) Water
3) Minerals

E) Production Principles
1) Elements of the production process
2) Differences between agriculture and industrial production
3) Efficiency

F) Economic Systems
1) Market
2) Traditional
3) Command
a) Influences on the system
b) Technology
c) Values
d) Population
e) Government Policy

G) Microeconomics
1) Demand
a) Utility
b) Consumer Behavior
c) Food Products
2) Supply
a) Types of input costs
b) Effect of technology on costs
c) Revenue considerations
3) Business Organization
a) Single Proprietorship
b) Partnerships
c) Corporations
d) Cooperatives
4) Markets and Their Structure
a) Commodities
b) Futures
5) Distribution of Income
a) Differences
b) Determining Factors
c) Governmental role
6) Market Structure
a) Monopolistic competition
b) Perfect competition
c) Role of government
d) Planning and zoning

H) Macroeconomics
1) Indicators
a) Consumer price index
b) Gross Nat'l product deflator
c) Employment
d) Cost of living
e) Inflation
f) Trade Balance

g) Cycles of Production
2) Government Programs and Policies
a) Budget process
b) Spending/taxing
c) Monetary policy
(1) money
(2) Federal Reserve
d) Financial Intermediaries/
e) Agriculture Programs
(1) loans
(2) subsidies
(3) alternatives

I) International Economics
1) Agriculture trade and economic development
2) Foreign trade policy
3) Tariffs
a) Quotas
b) Food as a weapon

J) Importance of exports
1) Goals of policy
2) Criteria of policy formulation
3) Problem solving environment
4) Problem solving approach

K) The problem solving approach and policy formulation

L) Problems in Resources Development
1) United States
a) Rural
b) Urban
2) Developing countries

D. ***COURSE OBJECTIVES FOR***

After completion of this course students will:

1. Understand the activities that lead to the development of our government, the evolution of the Constitution, and the essential principles of the structure of our government.
2. Students will be able to distinguish between the branches of government and identify the duties of each branch.
3. Students will be able to identify the social context and public opinion of our government system.
4. Students will be able to outline the process of election.
5. Students will understand the Bill of Rights and explain the meaning and implication of each right in our society.
6. Students will be able to distinguish between the powers of state government and the national government.
7. Students will recognize the role of tariffs and quotas as they relate to international agriculture trade and economic development.
8. Students understand how government organizations affect agriculture and the characteristics of and differences between national and international trade.
9. Students understand how government organizations affect agriculture and the characteristics of and differences between national and international trade.
10. Students will understand economic principles as they relate to agribusiness.
11. Students will be able to make management decisions based on their analysis and interpretation of economic information using the appropriate technology.
12. Student should be able to distinguish the differences between agricultural and industrial production.

13. Students will recognize the role of tariffs and quotas as they relate to international agriculture trade and economic development.
14. Students will distinguish between rural and urban problems in resource development.

Foundation Standards

1.1 Mathematics : Specific applications of Algebra I standards (grades eight through twelve):

(10.0) Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.

(12.0) Students simplify fractions with polynomials in the numerator and denominator by factoring both and reducing them to the lowest terms.

(13.0) Students add, subtract, multiply, and divide rational expressions and functions. Students solve both computationally and conceptually challenging problems by using these techniques.

(15.0) Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

Specific applications of Geometry standards (grades eight through twelve):

(8.0) Students know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures.

(10.0) Students compute areas of polygons, including rectangles, scalene triangles, equilateral triangles, rhombi, parallelograms, and trapezoids.

(11.0) Students determine how changes in dimensions affect the perimeter, area, and volume of common geometric figures and solids.

(12.0) Students find and use measures of sides and of interior and exterior angles of triangles and polygons to classify figures and solve problems.

Specific applications of Probability and Statistics standards (grades eight through twelve):

(8.0) Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

1.2 Science : Specific applications of Investigation and Experimentation standards (grades nine through twelve):

(1.a) Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.

(1.c) Identify possible reasons for inconsistent results, such as sources of error or uncontrolled conditions.

(1.d) Formulate explanations by using logic and evidence.

(1.f) Distinguish between hypothesis and theory as scientific terms.

(1.j) Recognize the issues of statistical variability and the need for controlled tests.

(1.l) Analyze situations and solve problems that require combining and applying concepts from more than one area of science.

(1.m) Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

1.3 History–Social Science : Specific applications of Principles of Economics standards (grade twelve):

(12.2) Students analyze the elements of America's market economy in a global setting.

(12.2.2) Discuss the effects of changes in supply and/or demand on the relative scarcity, price, and quantity of particular products.

(12.2.3) Explain the roles of property rights, competition, and profit in a market economy.

(12.2.5) Understand the process by which competition among buyers and sellers determines a market price.

(12.2.6) Describe the effect of price controls on buyers and sellers.

(12.2.7) Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products.

(12.2.10) Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.

(12.4) Students analyze the elements of the U.S. labor market in a global setting.

(12.4.3) Discuss wage differences among jobs and professions, using the laws of demand and supply and the concept of productivity.

2.0 Communications: Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts. (The standards listed below retain in parentheses the numbering as specified in the English– language arts content standards adopted by the State Board of Education.)

2.1 Reading: Specific applications of Reading Comprehension standards (grades nine and ten):

(2.1) Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how authors use the features to achieve their purposes.

(2.2) Prepare a bibliography of reference materials for a report using a variety of consumer, workplace, and public documents.

(2.3) Generate relevant questions about readings on issues that can be researched.

(2.6) Demonstrate use of sophisticated learning tools by following technical directions (e.g., those found with graphic calculators and specialized software programs and in access guides to World Wide Web sites on the Internet).

(2.7) Critique the logic of functional documents by examining the sequence of information and procedures in anticipation of possible reader misunderstandings.

(2.8) Evaluate the credibility of an author's argument or defense of a claim by critiquing the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text (e.g., in professional journals, editorials, political speeches, primary source material).

Specific applications of Reading Comprehension standards (grades eleven and twelve):

(2.1) Analyze both the features and the rhetorical devices of different types of public documents (e.g., policy statements, speeches, debates, platforms) and the way in which authors use those features and devices.

(2.3) Verify and clarify facts presented in other types of expository texts by using a variety of consumer, workplace, and public documents.

(2.4) Make warranted and reasonable assertions about the author's arguments by using elements of the text to defend and clarify interpretations.

2.2 Writing: Specific applications of Writing Strategies and Applications standards (grades 9-10)

(1.1) Establish a controlling impression or coherent thesis that conveys a clear and distinctive perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.

(1.2) Use precise language, action verbs, sensory details, appropriate modifiers, and the active rather than the passive voice.

(1.3) Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.

(1.5) Synthesize information from multiple sources and identify complexities and discrepancies in the information and the different perspectives found in each medium (e.g., almanacs, microfiche, news sources, in-depth field studies,
speeches, journals, technical documents).

(2.3) Write expository compositions, including analytical essays and research reports:

a. Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.

b. Convey information and ideas from primary and secondary sources accurately and coherently.

c. Make distinctions between the relative value and significance of specific data, facts, and ideas.

d. Include visual aids by employing appropriate technology to organize and record information on charts, maps, and graphs.

e. Anticipate and address readers' potential misunderstandings, biases, and expectations.

f. Use technical terms and notations accurately.

(2.5) Write business letters:

a. Provide clear and purposeful information and address the intended audience appropriately.

b. Use appropriate vocabulary, tone, and style to take into account the nature of the relationship with, and the knowledge and interests of, the recipients.

c. Highlight central ideas or images.

d. Follow a conventional style with page formats, fonts, and spacing that contribute to the documents' readability and impact.

(2.6) Write technical documents (e.g., a manual on rules of behavior for conflict resolution, procedures for conducting a meeting, minutes of a meeting):

a. Report information and convey ideas logically and correctly.
b. Offer detailed and accurate specifications.
c. Include scenarios, definitions, and examples to aid comprehension (e.g., troubleshooting guide).
d. Anticipate readers' problems, mistakes, and misunderstandings.

Specific applications of Writing Strategies and Applications standards (grades eleven and twelve):

(1.3) Structure ideas and arguments in a sustained, persuasive, and sophisticated way and support them with precise and relevant examples.

(1.6) Develop presentations by using clear research questions and creative and critical research strategies (e.g., field studies, oral histories, interviews, experiments, electronic sources).

(1.7) Use systematic strategies to organize and record information (e.g., anecdotal scripting, annotated bibliographies).

(1.8) Integrate databases, graphics, and spreadsheets into word-processed documents.

(2.5) Write job applications and résumés:

a. Provide clear and purposeful information and address the intended audience appropriately.
b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension.
c. Modify the tone to fit the purpose and audience.
d. Follow the conventional style for that type of document (e.g., résumé, memorandum) and use page formats, fonts, and spacing that contribute to the readability and impact of the document.

(2.6) Deliver multimedia presentations:

a. Combine text, images, and sound and draw information from many sources (e.g., television broadcasts, videos, films, newspapers, magazines, CD-ROMs, the Internet, electronic media-generated images).
b. Select an appropriate medium for each element of the presentation.
c. Use the selected media skillfully, editing appropriately and monitoring for quality.
d. Test the audience's response and revise the presentation accordingly.

2.3 Written and Oral English Language Conventions : Specific applications of English Language Conventions standards (grades eleven and twelve):

(1.1) Demonstrate control of grammar, diction, and paragraph and sentence structure and an understanding of English usage.

(1.2) Produce legible work that shows accurate spelling and correct punctuation and capitalization.

(1.3) Reflect appropriate manuscript requirements in writing.

2.4 Listening and Speaking: Specific applications of Listening and Speaking Strategies and Applications standards (grades nine and ten):

(1.1) Formulate judgments about the ideas under discussion and support those judgments with convincing evidence.

(1.7) Use props, visual aids, graphs, and electronic media to enhance the appeal and accuracy of presentations.

(2.2) Deliver expository presentations:

a. Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.
b. Convey information and ideas from primary and secondary sources accurately and coherently.
c. Make distinctions between the relative value and significance of specific data, facts, and ideas.
d. Include visual aids by employing appropriate technology to organize and display information on charts, maps, and graphs.
e. Anticipate and address the listener's potential misunderstandings, biases, and expectations.
f. Use technical terms and notations accurately.

(2.3) Apply appropriate interviewing techniques:

a. Prepare and ask relevant questions.
b. Make notes of responses.
c. Use language that conveys maturity, sensitivity, and respect.
d. Respond correctly and effectively to questions.
e. Demonstrate knowledge of the subject or organization.
f. Compile and report responses.
g. Evaluate the effectiveness of the interview.

Specific applications of Listening and Speaking Strategies and Applications standards (grades 11-12)

(1.8) Use effective and interesting language, including:

a. Informal expressions for effect
b. Standard American English for clarity
c. Technical language for specificity

(1.14) Analyze the techniques used in media messages for a particular audience and evaluate their effectiveness (e.g., Orson Welles' radio broadcast "War of the Worlds").

(2.4) Deliver multimedia presentations:

a. Combine text, images, and sound by incorporating information from a wide range of media, including films, newspapers, magazines, CD-ROMs, online information, television, videos, and electronic media-generated images.
b. Select an appropriate medium for each element of the presentation.
c. Use the selected media skillfully, editing appropriately and monitoring for quality.
d. Test the audience's response and revise the presentation accordingly

3.0 Career Planning and Management

Students understand how to make effective decisions, use career information, and manage personal career plans:

3.1 Know the personal qualifications, interests, aptitudes, information, and skills necessary to succeed in careers.

3.2 Understand the scope of career opportunities and know the requirements for education, training, and licensure.

3.3 Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.

3.4 Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.

3.5 Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.

3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio.

4.0 Technology : Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments:

4.1 Understand past, present, and future technological advances as they relate to a chosen pathway.

4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.

4.3 Understand the influence of current and emerging technology on selected segments of the economy.

4.4 Understand geographic information systems (G.I.S.).

4.5 Determine the validity of the content and evaluate the authenticity, reliability, and bias of electronic and other resources.

4.6 Differentiate among, select, and apply appropriate tools and technology.

5.0 Problem Solving and Critical Thinking : Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, and problem-solving techniques:

5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.

5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.

5.3 Use critical thinking skills to make informed decisions and solve problems.

6.0 Health and Safety : Students understand health and safety policies, procedures, regulations, and practices, including the use of equipment and handling of hazardous materials:

6.1 Know policies, procedures, and regulations regarding health and safety in the workplace, including employers' and employees' responsibilities.

6.2 Understand critical elements of health and safety practices related to storing, cleaning, and maintaining tools, equipment, and supplies.

6.3 Understand how to locate important information on a material safety data sheet.

6.4 Maintain safe and healthful working conditions.

6.5 Use tools and machines safely and appropriately.

6.6 Know how to both prevent and respond to accidents in the agricultural industry.

7.0 Responsibility and Flexibility : Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings:

7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.

7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.

7.3 Understand the need to adapt to varied roles and responsibilities.

7.4 Understand that individual actions can affect the larger community.

7.5 Understand the importance of time management to fulfill responsibilities.

7.6 Know how to apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.

8.0 Ethics and Legal Responsibilities: Students understand professional, ethical, and legal behavior consistent with applicable laws, regulations, and organizational norms:

8.1 Know the major local, district, state, and federal regulatory agencies and entities that affect the industry and how they enforce laws and regulations.

8.2 Understand the concept and application of ethical and legal behavior consistent with workplace standards.

8.3 Understand the role of personal integrity and ethical behavior in the workplace.

8.4 Understand how to access, analyze, and implement quality assurance information.

9.0 Leadership and Teamwork : Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution:

9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.

9.2 Understand the ways in which preprofessional associations, such as the Future Farmers of America (FFA), and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.

9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.

9.4 Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.

9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.

9.6 Understand leadership, cooperation, collaboration, and effective decision-making skills applied in group or team activities, including the student organization.

10.0 Technical Knowledge and Skills : Students understand the essential knowledge and skills common to all pathways in the Agriculture and Natural Resources sector:

10.1 Understand the aims, purposes, history, and structure of the FFA student organization, and know the opportunities it makes available.

10.2 Manage and actively engage in a career-related, supervised agricultural experience.

10.3 Understand the importance of maintaining and completing the California Agricultural Record Book.

10.4 Maintain and troubleshoot equipment used in the agricultural industry.

11.0 Demonstration and Application : Students demonstrate and apply the concepts contained in the foundation and pathway standards.

Agricultural Business Pathway: In the Agricultural Business Pathway, students learn about agricultural business operation and management. Topics include accounting, finance, economics, business organization, marketing, and sales.

A1.0 Students understand decision-making processes within the American free enterprise system:

A1.1 Differentiate among the components of the American free enterprise system and other forms of economic systems.

A1.2 Distinguish among the main characteristics of individual proprietorships, partnerships, corporations, and cooperatives.

A1.3 Understand the advantages and disadvantages of the four types of business ownership.

A1.4 Analyze appropriate decision-making tools and financial records to make key management decisions.

A1.5 Analyze physical production relationships to determine optimum use levels.

A1.6 Understand how to calculate the fixed and variable costs associated with the production of agricultural products and determine the output level that will yield maximum profit.

A2.0 Students understand the fundamental economic principles of agribusiness and agricultural production:

A2.1 Understand how basic economic factors affect agricultural production and agribusiness management decisions.

A2.2 Know basic agricultural economic terminology.

A2.3 Understand the law of supply and demand as it effects price determination.

A2.4 Analyze how agriculture uses scarce resources to meet the needs and demands of its consumers.

A2.5 Differentiate between elastic and inelastic supply and demand.

A2.6 Understand the law of diminishing returns and its impact on agricultural production.

A3.0 Students understand the role of credit in agribusiness and agricultural production:

A3.1 Analyze the factors that determine the cost of credit in order to select optimum credit sources (e.g., the advantages and disadvantages of borrowing from the various types of credit providers and sources for short-, intermediate-, and long-term credit).

A3.2 Know the criteria lenders use to evaluate repayment capacity.

A3.3 Analyze balance sheets and cash-flow statements to determine the ability to repay loans.

A4.0 Students understand proper accounting principles and procedures used in business management and tax planning:

A4.1 Understand the differences between cash and accrual accounting systems.

A4.2 Understand the use and importance of budgets, income statements, balance sheets, and financial statements.

A4.3 Understand the basis of taxation within the tax system and its impact on the economy, including the role of taxes in agribusiness.

A4.4 Analyze the role of depreciation and purchasing in tax planning and liability.

A4.5 Understand how to determine property values and how to complete a depreciation schedule.

A4.6 Understand how to determine the tax obligations for an agribusiness.

A5.0 Students understand basic risk management principles and their impact on economic viability:

A5.1 Understand environmental responsibility and its impact on agribusiness.

A5.2 Understand the concept of liability and the economic impact of being held liable.

A5.3 Understand the concept and process of risk management, including the use of risk management tools such as insurance.

A5.4 Understand how recordkeeping, farm plans, and an analysis of best practices affect risk management decisions.

A5.5 Understand the role of contingency plans in risk management.

A6.0 Students understand the role and value of agricultural organizations:

A6.1 Understand the benefits of private, public, and governmental organizations, including the value and impact of cooperatives.

A6.2 Understand how participation within organizations would be beneficial in supporting various agricultural operations.

A6.3 Understand how to identify and electronically access public and private agricultural organizations.

A7.0 Students understand agricultural marketing systems:

A7.1 Understand how marketing functions in a free market society.

A7.2 Understand the advantages and disadvantages of the various marketing options for agricultural products and services.

A7.3 Understand how the law of comparative advantage affects agricultural production.

A7.4 Understand the impact of advertising and promotion on the marketing of agricultural products and services.

A7.5 Understand how promotion trends for agricultural products influence individuals.

A7.6 Understand how to develop a marketing plan for an agricultural product or service.

A8.0 Students understand the sales of agricultural products and services:

A8.1 Determine the most effective methods for assessing customer needs and wants.

A8.2 Understand the stages in making a successful sale and the various techniques used to approach potential customers and overcome their objections.

A8.3 Examine the physiological and psychological factors that influence motivation to purchase, including the fundamental steps in making a purchase.

A9.0 Students understand local, national, and international agricultural markets and how trade affects the economy:

A9.1 Understand how the importance of agricultural imports and exports affects state and national economies.

A9.2 Know how governmental, economic, and cultural factors affect international trade.

A9.3 Compare and contrast United States trade policies with those of other important trading partners.

A9.4 Understand how biotechnology affects trade and global economies.

A9.5 Understand how different cultural values affect agricultural production and marketing.

A9.6 Understand how negotiations and bargaining agreements affect trade agreements.

A9.7 Analyze agricultural marketing strategies in other parts of the world.

C. Agriscience Pathway

C1.0 Students understand the role of agriculture in the California economy:

C1.1 Understand the history of the agricultural industry in California.

C1.3 Understand the interrelationship of California agriculture and society at the local, state, national, and international levels.

C2.1 Understand important agricultural environmental impacts on soil, water, and air.

C2.2 Understand current agricultural environmental challenges.

C3.2 Understand how technology influences factors such as labor, efficiency, diversity, availability, mechanization, communication, and so forth.

C3.4 Understand the laws and regulations concerning biotechnology.

C4.4 Understand various points of view regarding the use of animals.

E. Forestry and Natural Resources Pathway

E1.4 Compare the effects on air and water quality of using different forms of energy.

E2.0 Students understand air and water use, management practices, and conservation strategies:

E2.1 Understand the government's role in regulating air, soil, and water use management practices and conservation strategies.

E13.3 Understand the role of public and private property rights and how they affect agriculture.

E13.4 Understand the role of government in managing public and private property rights.

G. Plant and Soil Science Pathway

G8.1 Understand California water history, current issues, water rights, water law, and water transfer through different distribution projects throughout the state.

G8.2 Understand the local, state, and federal agencies that regulate water quality and availability in California.

Principles of American Democracy

12.1 Students explain the fundamental principles and moral values of American democracy as expressed in the U.S. Constitution and other essential documents of American democracy.

1. Analyze the influence of ancient Greek, Roman, English, and leading European political thinkers such as John Locke, Charles-Louis Montesquieu, Niccolò Machiavelli, and William Blackstone on the development of American government.
2. Discuss the character of American democracy and its promise and perils as articulated by Alexis de Tocqueville.
3. Explain how the U.S. Constitution reflects a balance between the classical republican concern with promotion of the public good and the classical liberal concern with protecting individual rights; and discuss how the basic premises of liberal constitutionalism and democracy are joined in the Declaration of Independence as "self-evident truths."
4. Explain how the Founding Fathers' realistic view of human nature led directly to the establishment of a constitutional system that limited the power of the governors and the governed as articulated in the *Federalist Papers.*
5. Describe the systems of separated and shared powers, the role of organized interests (Federalist *Paper Number 10),* checks and balances (Federalist *Paper Number 51),* the importance of an independent

judiciary (Federalist *Paper Number 78),* enumerated powers, rule of law, federalism, and civilian control of the military.

6. Understand that the Bill of Rights limits the powers of the federal government and state governments.

12.2 Students evaluate and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured.

1. Discuss the meaning and importance of each of the rights guaranteed under the Bill of Rights and how each is secured (e.g., freedom of religion, speech, press, assembly, petition, privacy).
2. Explain how economic rights are secured and their importance to the individual and to society (e.g., the right to acquire, use, transfer, and dispose of property; right to choose one's work; right to join or not join labor unions; copyright and patent).
3. Discuss the individual's legal obligations to obey the law, serve as a juror, and pay taxes.
4. Understand the obligations of civic-mindedness, including voting, being informed on civic issues, volunteering and performing public service, and serving in the military or alternative service.
5. Describe the reciprocity between rights and obligations; that is, why enjoyment of one's rights entails respect for the rights of others.
6. Explain how one becomes a citizen of the United States, including the process of naturalization (e.g., literacy, language, and other requirements).

12.3 Students evaluate and take and defend positions on what the fundamental values and principles of civil society are (i.e., the autonomous sphere of voluntary personal, social, and economic relations that are not part of government), their interdependence, and the meaning and importance of those values and principles for a free society.

1. Explain how civil society provides opportunities for individuals to associate for social, cultural, religious, economic, and political purposes.
2. Explain how civil society makes it possible for people, individually or in association with others, to bring their influence to bear on government in ways other than voting and elections.
3. Discuss the historical role of religion and religious diversity.
4. Compare the relationship of government and civil society in constitutional democracies to the relationship of government and civil society in authoritarian and totalitarian regimes.

12.4 Students analyze the unique roles and responsibilities of the three branches of government as established by the U.S. Constitution.

1. Discuss Article I of the Constitution as it relates to the legislative branch, including eligibility for office and lengths of terms of representatives and senators; election to office; the roles of the House and Senate in impeachment proceedings; the role of the vice president; the enumerated legislative powers; and the process by which a bill becomes a law.
2. Explain the process through which the Constitution can be amended.
3. Identify their current representatives in the legislative branch of the national government.
4. Discuss Article II of the Constitution as it relates to the executive branch, including eligibility for office and length of term, election to and removal from office, the oath of office, and the enumerated executive powers.
5. Discuss Article III of the Constitution as it relates to judicial power, including the length of terms of judges and the jurisdiction of the Supreme Court.
6. Explain the processes of selection and confirmation of Supreme Court justices.

12.5 Students summarize landmark U.S. Supreme Court interpretations of the Constitution and its amendments.

1. Understand the changing interpretations of the Bill of Rights over time, including interpretations of the basic freedoms (religion, speech, press, petition, and assembly) articulated in the First Amendment and the due process and equal-protection-of-the-law clauses of the Fourteenth Amendment.
2. Analyze judicial activism and judicial restraint and the effects of each policy over the decades (e.g., the Warren and Rehnquist courts).
3. Evaluate the effects of the Court's interpretations of the Constitution in *Marbury* v. *Madison, McCulloch* v. *Maryland,* and *United States* v. *Nixon,* with emphasis on the arguments espoused by each side in these cases.

4. Explain the controversies that have resulted over changing interpretations of civil rights, including those in *Plessy* v. *Ferguson, Brown* v. *Board of Education, Miranda* v. *Arizona, Regents of the University of California* v. *Bakke, Adarand Constructors, Inc.* v. *Pena,* and *United States* v. *Virginia* (VMI).

12.6 Students evaluate issues regarding campaigns for national, state, and local elective offices.

1. Analyze the origin, development, and role of political parties, noting those occasional periods in which there was only one major party or were more than two major parties.
2. Discuss the history of the nomination process for presidential candidates and the increasing importance of primaries in general elections.
3. Evaluate the roles of polls, campaign advertising, and the controversies over campaign funding.
4. Describe the means that citizens use to participate in the political process (e.g., voting, campaigning, lobbying, filing a legal challenge, demonstrating, petitioning, picketing, running for political office).
5. Discuss the features of direct democracy in numerous states (e.g., the process of referendums, recall elections).
6. Analyze trends in voter turnout; the causes and effects of reapportionment and redistricting, with special attention to spatial districting and the rights of minorities; and the function of the Electoral College.

12.7 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments.

1. Explain how conflicts between levels of government and branches of government are resolved.
2. Identify the major responsibilities and sources of revenue for state and local governments.
3. Discuss reserved powers and concurrent powers of state governments.
4. Discuss the Ninth and Tenth Amendments and interpretations of the extent of the federal government's power.
5. Explain how public policy is formed, including the setting of the public agenda and implementation of it through regulations and executive orders.
6. Compare the processes of lawmaking at each of the three levels of government, including the role of lobbying and the media.
7. Identify the organization and jurisdiction of federal, state, and local (e.g., California) courts and the interrelationships among them.
8. Understand the scope of presidential power and decision making through examination of case studies such as the Cuban Missile Crisis, passage of Great Society legislation, War Powers Act, Gulf War, and Bosnia.

12.8 Students evaluate and take and defend positions on the influence of the media on American political life.

1. Discuss the meaning and importance of a free and responsible press.
2. Describe the roles of broadcast, print, and electronic media, including the Internet, as means of communication in American politics.
3. Explain how public officials use the media to communicate with the citizenry and to shape public opinion.

12.9 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances, and its obstacles.

1. Explain how the different philosophies and structures of feudalism, mercantilism, socialism, fascism, communism, monarchies, parliamentary systems, and constitutional liberal democracies influence economic policies, social welfare policies, and human rights practices.
2. Compare the various ways in which power is distributed, shared, and limited in systems of shared powers and in parliamentary systems, including the influence and role of parliamentary leaders (e.g., William Gladstone, Margaret Thatcher).
3. Discuss the advantages and disadvantages of federal, con federal, and unitary systems of government.
4. Describe for at least two countries the consequences of conditions that gave rise to tyrannies during certain periods (e.g., Italy, Japan, Haiti, Nigeria, Cambodia).
5. Identify the forms of illegitimate power that twentieth-century African, Asian, and Latin American dictators used to gain and hold office and the conditions and interests that supported them.
6. Identify the ideologies, causes, stages, and outcomes of major Mexican, Central American, and South American revolutions in the nineteenth and twentieth centuries.

7. Describe the ideologies that give rise to Communism, methods of maintaining control, and the movements to overthrow such governments in Czechoslovakia, Hungary, and Poland, including the roles of individuals (e.g., Alexander Solzhenitsyn, Pope John Paul II, Lech Walesa, Vaclav Havel).
8. Identify the successes of relatively new democracies in Africa, Asia, and Latin America and the ideas, leaders, and general societal conditions that have launched and sustained, or failed to sustain, them.

12.10 Students formulate questions about and defend their analyses of tensions within our constitutional democracy and the importance of maintaining a balance between the following concepts: majority rule and individual rights; liberty and equality; state and national authority in a federal system; civil disobedience and the rule of law; freedom of the press and the right to a fair trial; the relationship of religion and government.

Principles of Economics

12.1 Students understand common economic terms and concepts and economic reasoning.

1. Examine the causal relationship between scarcity and the need for choices.
2. Explain opportunity cost and marginal benefit and marginal cost.
3. Identify the difference between monetary and non monetary incentives and how changes in incentives cause changes in behavior.
4. Evaluate the role of private property as an incentive in conserving and improving scarce resources, including renewable and nonrenewable natural resources.
5. Analyze the role of a market economy in establishing and preserving political and personal liberty (e.g., through the works of Adam Smith).

12.2 Students analyze the elements of America's market economy in a global setting.

1. Understand the relationship of the concept of incentives to the law of supply and the relationship of the concept of incentives and substitutes to the law of demand.
2. Discuss the effects of changes in supply and/ or demand on the relative scarcity, price, and quantity of particular products.
3. Explain the roles of property rights, competition, and profit in a market economy.
4. Explain how prices reflect the relative scarcity of goods and services and perform the allocative function in a market economy.
5. Understand the process by which competition among buyers and sellers determines a market price.
6. Describe the effect of price controls on buyers and sellers.
7. Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products.
8. Explain the role of profit as the incentive to entrepreneurs in a market economy.
9. Describe the functions of the financial markets.
10. Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.

12.3 Students analyze the influence of the federal government on the American economy.

1. Understand how the role of government in a market economy often includes providing for national defense, addressing environmental concerns, defining and enforcing property rights, attempting to make markets more competitive, and protecting consumers' rights.
2. Identify the factors that may cause the costs of government actions to outweigh the benefits.
3. Describe the aims of government fiscal policies (taxation, borrowing, spending) and their influence on production, employment, and price levels.
4. Understand the aims and tools of monetary policy and their influence on economic activity (e.g., the Federal Reserve).

12.4 Students analyze the elements of the U.S. labor market in a global setting.

1. Understand the operations of the labor market, including the circumstances surrounding the establishment of principal American labor unions, procedures that unions use to gain benefits for their members, the effects of unionization, the mini-mum wage, and unemployment insurance.
2. Describe the current economy and labor market, including the types of goods and services produced, the types of skills workers need, the effects of rapid technological change, and the impact of international competition.

3. Discuss wage differences among jobs and professions, using the laws of demand and supply and the concept of productivity.
4. Explain the effects of international mobility of capital and labor on the U.S. economy.

12.5 Students analyze the aggregate economic behavior of the U.S. economy.

1. Distinguish between nominal and real data.
2. Define, calculate, and explain the significance of an unemployment rate, the number of new jobs created monthly, an inflation or deflation rate, and a rate of economic growth.
3. Distinguish between short-term and long-term interest rates and explain their relative significance.

12.6 Students analyze issues of international trade and explain how the U.S. economy affects, and is affected by, economic forces beyond the United States's borders.

1. Identify the gains in consumption and production efficiency from trade, with emphasis on the main products and changing geographic patterns of twentieth-century trade among countries in the Western Hemisphere.
2. Compare the reasons for and the effects of trade restrictions during the Great Depression compared with present-day arguments among labor, business, and political leaders over the effects of free trade on the economic and social interests of various groups of Americans.
3. Understand the changing role of international political borders and territorial sovereignty in a global economy.
4. Explain foreign exchange, the manner in which exchange rates are determined, and the effects of the dollar's gaining (or losing) value relative to other currencies.

E. STUDENT EVALUATION STANDARDS

Homework/Class work	**
Supervised Agriculture Experience Program	**
FFA – Leadership	**
Quizzes & Tests	**
Participation/Career Readiness	**

**Weighting is based on individual school sites.

SEMESTER BREAKDOWN:

Quarter 1 = 40%

Quarter 2 = 40%

Final = 20%

F. SUGGESTED INSTRUCTIONAL ACTIVITIES

Prepared By: Elizabeth Bledsoe, Clay Freeman, Amy Mertz

Kern High School District
Office of Instruction

DPC#: _____
Approved by Board: _____

District Wide Course of Study Title:

Agricultural Communications

A. COURSE INFORMATION

Grade Level:	**9-12**
Length of Course:	**1 Year (2 Semesters)**
Maximum Credit:	**10**
Type:	**College Prep- "F"**
Recommendation for Enrollment:	**Students should have interest in leadership and/or agriculture practices. Previous or concurrent enrollment in the Agriculture Program required. This course is designed as a supplementary course to the established career pathways in the agriculture department and should not be taken as an agriculture course for the purpose of being in the FFA without advisor approval.**

B. COURSE DESCRIPTION *(Include a brief explanation of the course; mention any prerequisites, including standardized test scores; and indicate whether the course satisfies a specific gradation requirement.)*

This Agricultural Communications course is designed to enhance leadership skills in students through written and oral communication. The course is intended for students in grades 9-12 and should be taken as a supplemental course to the established agriculture career pathway. Students enrolled in the course will have the unique opportunity to receive direct leadership training including public speaking and debate while working with local and state business men and women in the agriculture industry. The course will emphasize detailed knowledge of leadership through the use of local and state public speaking events, business management through computer applications and record keeping, industry networking, professional development, officer development workshops, career development events, as well as local, state and national leadership experiences. FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agriculture education.

C. ***INSTRUCTIONAL MATERIALS*** ***(List the basic text – include title, edition, author, and copyright – and other essential supplementary materials or instructional resources/materials used in the course.)***

LEADERSHIP: Personal Development and Career Success, Second Edition, Thompson Delmar publishing, 2003

SUPPLEMENTARY INSTRUCTIONAL MATERIALS

- National FFA leadership packet, 1 per student
- National FFA leadership development binder
- MPower Leadership activity book
- California Agricultural Education Record Book
- Computer hardware and software
- California State Core Curriculum for Agriculture
- Internet access for California Agricultural Education Web Page and the National FFA web site, research information, and interactive agriculture sites.

D. ***COURSE OUTLINE*** ***(List the major content areas of the course an divide them according to the semester in which they fall. Designate the approximate amount of time given to each of the content areas. Suggested length: one page.)***

Unit	Topic	Time Frame	CTE Academic Standards Addressed	CTE Agriculture Standards Addressed
I.	**Communication Development:** Facilitation Training, Small group, Persuasive, Intrapersonal, Informal and Formal Expressions	4 weeks	Reading (2.1, 2.3) Writing (1.1)	F2.2(2.1), F2.3(1.1, 1.2, 1.3) F2.4(1.1, 2.2, 2.3
II.	**Professionalism:** Business Etiquette, Personal Grooming, Phone Etiquette, Use of effective and appropriate communication in a business setting	3 weeks		F2.2(2.5, 2.6), F9.0(9.4, 9.5, 9.6)
III.	**Leadership:** Historical leaders, Leadership Styles, Individual Strengths and Weaknesses, Overcoming obstacles	4 weeks		F7.0(7.1, 7.2, 7.3, 7.4, 7.5) F9.0(9.1, 9.2, 9.3) F10.0(10.1)
IV.	**Agricultural Advocacy:** FFA, Sound bytes, Response to Media,	4 weeks	Writing (2.6) L&S (1.1)	F2.2(2.6), F2.4 (1.14, 2.4) F4.0(4.1, 4.6)

	Appropriate use of Social Media, Positive messages, Press Releases			
V.	**Record Keeping:** Business Agreements, Budgets, Business Plan Analysis, Financial Statements	2 week	Alg(10.0, 12.0, 13.0)	F1.1(15.0,8.0) F10.0(10.3)
VI.	**Employment Skills:** Job Applications, Job Interviews, Resumes, Coverletters	3 weeks	Writing (2.5) L&S(2.3)	F2.1(2.7) F2.2(2.5) F2.4 (2.3) F3.0(3.6)
VII.	**Career Development Events:** Ag Sales, Ag Marketing, Ag Computers, Ag Issues, Parliamentary Procedure	2 weeks	Econ(12.2.5) Writing (1.6) L&S(1.1, 1.7, 2.2, 2.5)	F2.4 (2.2, 1.8), F4.0(4.2, 4.3), F5.0(5.1, 5.2, 5.3), F9.0(9.2)
VIII.	**Public Speaking:** Impromptu, Creed Recitation, Prepared Public Speaking, Extemporaneous Public Speaking	4 weeks	Reading (2.2, 2.8) Writing (1.1-1.3, 1.5, 2.3)	F2.1(2.2, 2.3, 2.6, 2.7, 2.8), F2.2(1.1, 1.2, 1.3, 1.5, 2.3) F4.0(4.5), C2.0(C2.1-C2.5) C3.0(C3.3) C4.0(C4.4),
IX.	**Production Agriculture Experiences:** Guest Speakers, Industry Tours, Agriculture Career Planning	3 weeks		F8.0 (8.1, 8.2, 8.3), C1.0(C1.2, C1.4)
X.	**Event Planning:** Theme, Banquet Scripts, Due Dates, Invitations, Technology use, Food Safety	3 weeks		F2.4 (1.7) F6.0(6.2) F7.0(7.5)
XI.	**Agriculture Careers:** Making contacts, Career exploration, Industry trends, Portfolios, Supervised Agricultural Experiences	3 weeks		F3.0 (3.1, 3.2, 3.3, 3.4, 3.5, 3.6) F10.0(10.2, 10.3, 10.4)

E. ***COURSE OBJECTIVES FOR*** ***(The objectives area to include the specific, major skills or understandings which students will be able to demonstrate or acquire instruction in the course. A minimum of eight to twelve objectives should be identified for each semester of the course. Each objective is to be clearly linked to the Board adopted standards for the course or subject area; indicate the link by placing the number of the appropriate standards (s) after each objective. Minimum length: one page)***

The student will:

- Know the personal qualifications, interests, aptitudes, information, and skills necessary to succeed in careers.

- Understand the scope of career opportunities and know the requirements for education, training, and licensure.
- Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.
- Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.
- Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.
- Know key strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and portfolio preparation.
- Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.
- Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.
- Use critical thinking skills to make informed decisions and solve problems.
- Understand the qualities and behaviors that constitute a positive and professional work demeanor.
- Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.
- Understand the need to adapt to varied roles and responsibilities.
- Understand that individual actions can affect the larger community.
- Understand the importance of time management to fulfill responsibilities.
- Know how to apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.
- Know major local, district, state, and federal regulatory agencies and entities that affect industry and how they enforce laws and regulations.
- Understand the concept and application of ethical and legal behavior consistent with workplace standards.
- Understand the role of personal integrity and ethical behavior in the workplace.
- Understand how to access, analyze, and implement quality assurance information.
- Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.
- Understand the ways in which pre-professional associations, such as the Future Farmers of America (FFA), and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.
- Understand how to organize and structure work individually and in teams for effective performance and attainment of goals.
- Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.
- Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.
- Understand leadership, cooperation, collaboration, and effective decision-making skills applied in group or team activities, including the student organization.
- Understand the aims, purposes, history, and structure of the FFA student organization, and know the opportunities it makes available.
- Manage and actively engage in a career-related, supervised agricultural experience.
- Understand the importance of maintaining and completing the California Agricultural Record Book.
- Understand how basic economic factors affect agricultural production and agribusiness management decisions.

- Analyze how agriculture uses scarce resources to meet the needs and demands of its consumers.
- Understand environmental responsibility and its impact on agribusiness.
- Understand the benefits of private, public, and governmental organizations, including the value and impact of cooperatives.
- Understand how participation within organizations would be beneficial in supporting various agricultural operations.

F. ***STUDENT EVALUATION STANDARDS*** ***(List the criteria on which students will be graded in the course. Give the approximate weight for each of the grading criteria in determining the student's grade, such as tests, homework, labs, class participation. Also indicate the weight given to quarter grades and semester final in tabulating the final grade.)***

These objectives may be measured by one or more of the following:

a. common unit pre/post assessments
b. teachers' tests
c. class assignments, activities, and specific group tasks or projects
d. students writings and/or portfolios
e. homework
f. audio-visual media presentations
g. leadership activities that enhance personal growth
h. Participation in FFA organization

Assessment Criteria:

Grading Scale:
A = 90-100%
B = 80-89%
C = 70- 79%
D = 60 - 69%
F = 0 - 59%

Quarter Grade Determination:

ASSINGMENTS	CODE	%WEIGHT
Assignments	ASM	35%
Tests	TST	20%
FFA Activities	FFA	15%
Record Book	RB	10%
Participation	PAR	20%
	TOTAL	**100%**

Semester Grade Determination:
Combination of Quarter 1 and 2 90%
Final Exam: 10%

G. ***SUGGESTED INSTRUCTIONAL ACTIVITIES*** ***(This item is optional and is not required of the course of study. If it is completed, it should include teacher and/or student activities such as field trips, demonstrations, speakers, or special procedures that will assist the students in learning the course objectives.)***

Key Laboratory Assignments:

Creating a Leader
Motivational Leaders
How to lead without being bossy
How to make a business phone call
The introduction of a guest
Thanking and presenting a guest
How to meet and greet
Greenhand Degree Ceremonies
Chapter Degree Ceremonies
How to run an official business meeting
Creating an agenda
Keeping the minutes
Creating a budget and balancing the budget
Practicing Roberts Rules of Order
The official opening and closing ceremonies for FFA officers
Creed Speaking
Impromptu Speaking
Job Interview
Career Development Events – Ag Sales, Ag Marketing, Parliamentary Procedure, Ag Issues, Ag Computers
Creating a 6-8 minute speech on an agriculture research topic
Thinking on your feet – Extemporaneous public speaking
Advertising in your community
Publishing article in the paper
Effectively utilizing social media
Planning and executing student and staff activities
Organizing a fundraiser
Participating in a leadership development conference
Planning an end of the year banquet
Agriculture Advocacy workshops
Industry guest speakers
Agricultural career show
Business Luncheon
Leadership traits surveys
Group problem solving
Writing press releases
Media training
Agricultural Issues forum
FFA Record Keeping
Completing job applications
Ag career planning and exploration
Career portfolios
Supervised agricultural experience projects

Appendix B
Program of Activities

SHAFTER FFA

2016-2017

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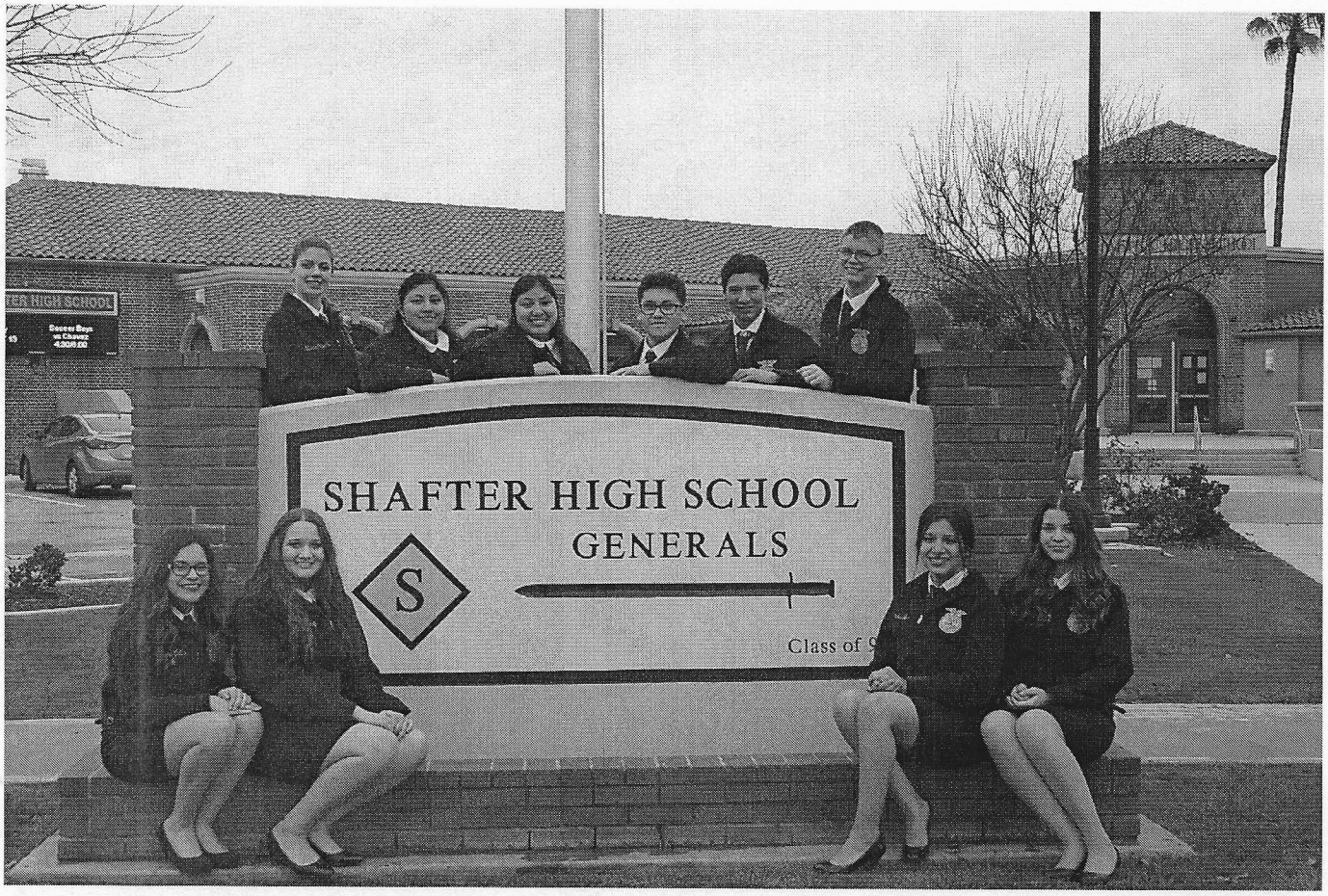
APPENDIX **43**

LETTER TO PARENTS FOR KERN COUNTY FAIR

SHAFTER FFA FAIR APPLICATIONS

STATE CONFERENCE APPLICATION



2016-2017 Chapter Officer

President: Victoria Darling
Vice President: Jasmine Ortiz
Secretary: Monica Barraza
Treasurer: Maria Barraza
Reporter: Esmeralda Torres
Sentinel: Michael Vander Poel

2016-2017 Greenhand Officer Team

President: Valeria Gomez
Vice President: Clarissa Vander Poel
Secretary: Isaac Moreno
Treasurer: Steven Evangelista
Reporter: Kayden Keillor
Sentinel: Fernando Medina

How to be an Active Member

An active FFA member of the Shafter FFA chapter is one who:

1. Is enrolled in an Agriculture Education class
2. Has paid their dues at the local, state, and national levels
3. Maintains a 2.0 or higher grade point average at all times
4. Earns a "C" or better in an Agriculture course
5. Has earned necessary points when applicable
6. Participate in fundraisers
7. Has become involved in a Supervised Agriculture Experience project

Every student enrolled in an Agriculture Education course at Shafter High School is eligible to join FFA. The first step is to sign up which starts the process of active membership. The next step is to maintain a 2.0 or higher G.P.A. If a student falls below a 2.0 for two consecutive grading periods, the student will not be eligible to participate in many FFA activities until eligibility is met. The final step is to be involved as much as possible. The FFA has a Point Award System and every activity has a point value.

We encourage everyone to involve him/herself in the FFA program. There are opportunities, which develop leadership, confidence, and friendships. There is a large area for growth within the FFA program.

2016-2017 Calendar of Events

AUGUST

12-13- Chapter Officer Boot Camp @ SLO
17- School Starts
20- Chapter Officer Leadership Conference
@ Frontier 8:30 am

SEPTEMBER

5- *No School Labor Day*
6- FFA Meeting 6:30 pm
7- Greenhand Conference- Bakersfield
21-Oct 2-Kern County Fair

OCTOBER

11- FFA Meeting 6:30pm
21- Fall Harvest
19-22 National FFA Convention
28- Reedley College Freshman Field Day

NOVEMBER

1- FFA Meeting 6:30 pm
8-10, 14- Opening & Closing Practice
11- Veterans Day Holiday
15- SV Opening & Closing Contest
@ Independence-5pm
21-25 Thanksgiving Break
29- SV Novice Records/BIG/ Coops- BC 5pm

DECEMBER

1- South Valley Section Activity

8- Banking Contest @Bkfd Ag Pavillion -4pm
9- Winter Officer Planning
26-Jan 6- Christmas Break

JANUARY

10- SV Speaking Contest Manuscripts due
16- Martin Luther King Jr. Day
17- FFA Meeting -6:30
20- SJ Regional Officer Apps Due
28- Public Speaking Contest @ Wasco-8:30 am

FEBRUARY

7- State Degree/ Proficiency Scoring
14-16 Tulare Farm Show
17-20 MFE/ALA Conferences@ Visalia
20- Presidents Day
20-24 National FFA Week
24- FFA Meeting @ 6:30pm
25- San Joaquin Regional Meeting @ ?
28- State Officer Testing

MARCH

4- UC Davis Field Day
14- SV Parli Pro Contest @ Foothill- 5pm
17- Regional Speaking @ COS -9 am
18- Merced FD/ Dinuba Vet Science
25- MJC Field Day
30- State Degree Ceremony @ Bkfd Ag Pavillion-6pm
31- Regional Parli Pro Contest @ COS -12 pm

APRIL

1- Reedley Field Day

4- FFA Meeting- 6:30 pm
8- Pomona Field Day/ Clovis Vet Science
10-17 Spring Break
18- Sectional Officer Applications Due
20- State Speaking Finals
21- State Parli-Pro Finals
22-25 State FFA Leadership Conference @Fresno
27- Fair Meeting 6 pm

MAY

1- Chapter Officer Applications Due
2- Chapter Officer Interviews 3
3- KAF Scholarship Night @ Bkfd Ag Pavilion
4- Officer Speech Recording
6- Cal Poly State Finals
8- Sectional Officer Candidate Interview @ West
9- SV Section Elections @ Delano 4 pm
12, 15, 17- Banquet Practice
18- Shafter FFA Banquet

INTRODUCTION TO THE FFA

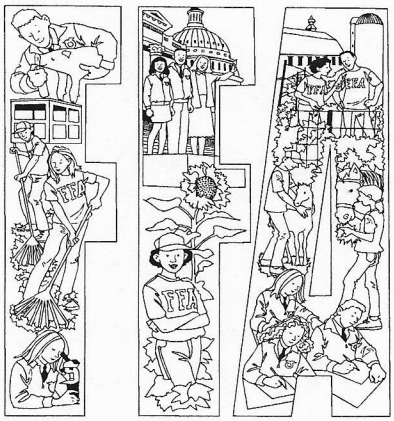
The FFA is a national organization of, by, and for students studying agriculture in public secondary schools under the provision of the National Vocational Education Acts.

An integral part of the program of education in agriculture in the public schools system of America, the FFA has become well known in recent years. No National student organization enjoys greater freedom of self-government under adult council and guidance than the FFA. Organized in November of 1928, it has served to motivate and vitalize the instruction offered to students of agriculture and to provide further training in citizenship and agriculture business.

The FFA is a non-profit, non-political youth organization designed to take its place with other agents striving for the development of leadership, the advancement of agriculture technology, and improvement of agricultural life. The foundation upon which the FFA organization is molded includes leadership, service, thrift, scholarship, improved agriculture, organized recreation, citizenship and patriotism.

National Headquarters for the FFA are located in the Agriculture Education Branch of Health, Education, and Welfare, Washington D.C. The National FFA Convention is held annually in Louisville, Kentucky and the California Association holds its annual conference at the Fresno Convention Center each April.

This 2005-2006 Program of Activities was developed to explain the purpose of the FFA Organization and give insight into the many opportunities that are available to all agriculture students at Shafter High School.



The Agricultural Education Mission

The mission of Agriculture Education is to prepare and support individuals for careers, build awareness and develop leadership for the food, fiber and natural resource system.

FFA CODE OF ETHICS

FFA members conduct themselves at all times to be a credit to their organization, chapter, school, community and family. As an FFA member, I pledge to:

1. Develop my potential for premier leadership, personal growth, and career success.
2. Make a positive difference in the lives of others.
3. Dress neatly and appropriately for the occasion.
4. Respect the rights of others and their property.
5. Be courteous, honest and fair with others.
6. Communicate in an appropriate, purposeful, and positive manner.
7. Demonstrate good sportsmanship by being modest in winning and generous in defeat.
8. Make myself aware of FFA programs and activities and be an active participant.
9. Conduct and value a supervised agricultural program.
10. Strive to establish and enhance my skill through agricultural education in order to enter a successful career.
11. Appreciate and promote diversity in our organization.

FFA OFFICIAL DRESS

Female Official Dress

• Black skirt. Skirt is to be at least knee length, hemmed evenly across the bottom, with a slit no longer than 2 inches above the knee, excluding the kick pleat. Black slacks may be appropriate for traveling and outdoor activities.
• White collared blouse and official FFA blue scarf.
• Black dress shoes with a closed heel and toe (No boots, sandals, open-toed shoes, or tennis shoes.)
• Natural colored nylon hosiery.
• Official FFA jacket zipped to the top.

Male Official Dress

• Black dress pants. (No jeans - blue or black, leather, pleather, etc.)
• White dress shirt and official FFA tie
• Black dress shoes with a closed heel and toe. (No boots, sandals, open-toed shoes, tennis shoes.)
• Black socks.
• Official FFA jacket zipped to the top.

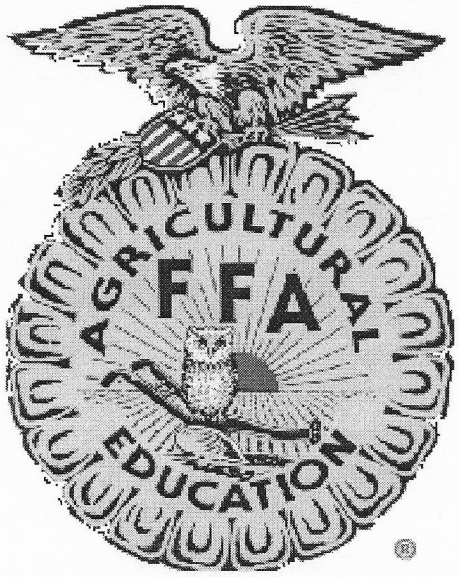
PROPER USE OF THE FFA JACKET

The FFA jacket is the most recognizable symbol of the organization. As a member, one of your responsibilities is to ensure its proper use. Specific guidelines are outlined below.

1. The jacket is to be worn only by members.
2. The jacket should be kept clean and neat.
3. The *back* of the jacket includes only: a large official FFA emblem, the name of the state association, and the name of the local chapter, district, or area. The *front* of the jacket includes only a small official FFA emblem, the name of the individual, one office or honor, and the year of that office or honor.
4. The jacket should be worn on official occasions with the zipper fastened to the top. The collar should be turned down and the cuffs buttoned.
5. The jacket should be worn by members and officers on all official FFA occasions, as well as other occasions where the chapter or state association is represented. It may be worn to school and other appropriate places.
6. The jacket should only be worn to places that are appropriate for members to visit.
7. School letters and insignia of other organizations should not be attached to or worn on the jacket.
8. When the jacket becomes faded and worn, it should be discarded or the emblems and lettering removed.
9. The emblems and lettering should be removed if the jacket is given or sold to a non-member.
10. A member should act professionally when wearing the official FFA jacket.
11. Members should refrain from use of tobacco and alcohol when underage and at all times when representing the FFA. In addition, members should exhibit their leadership qualities when they encounter substance including tobacco and alcohol and serve to discourage others from inappropriate behavior.
12. All chapter degree, officer and award medals should be worn beneath the name on the right side of the jacket, with exception that a single state FFA Degree charm or American FFA Degree key should be worn above the name or attached to a standard key chain. No more than three medals should be worn on the jacket. These should represent the highest degree earned, the highest office held and the highest award earned by the member.

FFA EMBLEM

The National Emblem of the FFA is significant and meaningful in every detail. Used by members in all recognized units in the organization, it is made up of five symbols: the owl, the plow, and the rising sun, within the cross section of an ear of corn, which is surrounded or surmounted by the American eagle. Upon the face of the emblem appear the words, "Agricultural Education," and the letters, "FFA."



The ***owl*** is symbolic of wisdom and knowledge.

The ***plow*** is the symbol of labor and tillage of the soil.

The ***rising sun*** is emblematic of progress and the new day that will dawn when all farmers are trained and have learned to cooperate.

The ***cross section of an ear of corn*** represents common agricultural interests since corn in native to America and grown in every state.

The ***eagle*** is indicative of the national scope of the organization.

FFA COLORS

National Blue

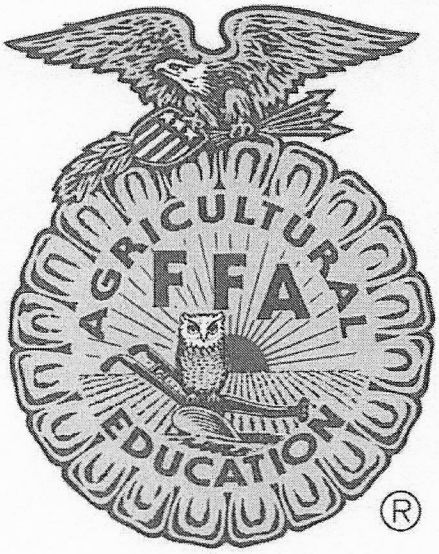
&

Corn Gold

FFA Motto

Learning to do
Doing to Learn
Earning to Live
Living to Serve

The FFA Creed



I believe in the future of agriculture, with a faith born not of words but of deeds - achievements won by the present and past generations of agriculturists; in the promise of better days through better ways, even as the better things we now enjoy have come to us from the struggles of former years.

I believe that to live and work on a good farm, or to be engaged in other agricultural pursuits, is pleasant as well as challenging; for I know the joys and discomforts of agricultural life and hold an inborn fondness for those associations which, even in hours of discouragement, I cannot deny.

I believe in leadership from ourselves and respect from others. I believe in my own ability to work efficiently and think clearly, with such knowledge and skill as I can secure, and in the ability of progressive agriculturists to serve our own and the public interest in producing and marketing the product of our toil.

I believe in less dependence on begging and more power in bargaining; in the life abundant and enough honest wealth to help make it so--for others as well as myself; in less need for charity and more of it when needed; in being happy myself and playing square with those whose happiness depends upon me.

I believe that American agriculture can and will hold true to the best traditions of our national life and that I can exert an influence in my home and community which will stand solid for my part in that inspiring task.

The creed was written by E. M. Tiffany, and adopted at the 3rd National Convention of the FFA. It was revised at the 38th Convention and the 63rd Convention.

FFA DEGREES

There shall be four degrees of active membership based on individual achievement. These are the Greenhand FFA Degree, Chapter FFA Degree, State FFA Degree, and the American FFA Degree. The national organization shall set the minimum qualifications for each degree.

Greenhand FFA Degree

To be eligible to receive the Greenhand FFA Degree from the chapter, the member must meet the following minimum qualifications:

1. Be enrolled in agricultural education and have satisfactory plans for a supervised agricultural experience program.
2. Learn to explain the FFA Creed, Motto, Salute and the FFA Mission Statement.
3. Describe and explain the meaning of the FFA emblem and colors.
4. Demonstrate knowledge of the FFA Code of Ethics and the proper use of the FFA jacket.
5. Demonstrate knowledge of the history of the organization, the chapter constitution and the bylaws, and the chapter Program of Activities.
6. Personally own or have access to the Official FFA Manual and the FFA Student Handbook.
7. Submit written application for the Greenhand FFA Degree.

Chapter FFA Degree

To be eligible to receive the Chapter FFA Degree from the chapter, the member must meet the following qualifications:

1. Must have received the Greenhand FFA Degree.
2. Must have satisfactorily completed the equivalent of at least 180 hours of systematic school instruction in agricultural education at or above the ninth grade level, have in operation an approved supervised agriculture experience program, and be enrolled in an agricultural education course.
3. Have participated in the planning and conducting of at least three official functions in the chapter Program of Activities.
4. Have earned and productively invested at least $150 by the members own efforts or worked at least forty-five hours in excess of scheduled class time, or a combination thereof, and have developed plans for continued growth and improvement in a supervised agriculture experience program.
5. Have effectively led a group discussion for 15 minutes.
6. Have demonstrated five procedures of parliamentary law.
7. Show progress toward individual achievement in the FFA awards program.
8. Have a satisfactory scholastic record.
9. Submit a written application for the Chapter FFA Degree.

State FFA Degree

To be eligible to receive the State FFA Degree from the state association, the member must meet the following minimum qualifications:

1. Have received the Chapter FFA Degree.
2. Have been an active FFA member for at least two years (24 months) at the time of receiving the State FFA Degree.
3. While in school, have completed the equivalent of at least two years (360 hours) of systematic school instruction in agricultural education at or above the ninth grade level, which includes a SAE program.
4. Have earned and productively invested at least $1,000, or worked at least 300 hours in excess of scheduled class time, or a combination thereof, in a supervised agricultural experience program.
5. Demonstrate leadership ability by:
    a. Performing 10 procedures of parliamentary law.
    b. Giving a six-minute speech on a topic relating to agriculture or the FFA.
6. Serving as an officer, committee chairperson, or participating member of a chapter committee.
7. Have a satisfactory scholastic record as certified by the local agriculture educator and the principal or superintendent.
8. Have participated in at least five different FFA activities above the chapter level.

American FFA Degree

To be eligible to receive the American FFA Degree from the National FFA Organization, the member must meet the following qualifications:

1. Have received the State FFA Degree, have been an active member for the past three years (36 months) and have a record of satisfactory participation in activities on the chapter and the state level.
2. Have satisfactorily completed the equivalent of at least three years (540 hours) of systematic secondary school instruction in an agricultural education program.
3. Have graduated from high school at least 12 months prior to the national convention at which the degree is to be granted.
4. Have in operation and have maintained records to substantiate an outstanding SAE program through which a member has exhibited comprehensive planning, managerial and financial expertise.
5. Have earned and productively invested at least $7,500 or have earned and productively invested at least $1,500 and worked 2,250 hours in excess of scheduled class time.
6. Have a record of outstanding leadership abilities and community involvement and have achieved a high school scholastic record of a "C" or better as certified by the principal or superintendent.

PROFICIENCY AWARD AREAS

Agricultural Communications

Typically includes programs in which students work at newspapers or other agricultural print facilities such as magazines to obtain training and practical experience in writing and publicizing in preparation for a writing or communications career. SAE programs may occur at radio or television stations, fair media rooms, or other businesses that require speaking skills and a knowledge of agriculture. This area includes any use of communication technology, such as web sites, aimed at communicating about agriculture.

Agricultural Mechanics Design and Fabrication

Involves designing and constructing agricultural equipment, structural land improvements and/or structures. It also includes selecting structural materials and/or implementing plans that use concrete, plumbing, heating, ventilation, and/or air conditioning in agricultural settings.

Agricultural Mechanics Repair and Maintenance

Involves adjusting, repairing, and maintaining agricultural power systems, which includes those that run by the way of mechanical, electrical, chemical, wind, solar, fluid, and/or water power.

Agricultural Mechanics Energy Systems (Agricultural Power)

Involves adjusting, repairing and maintaining agricultural power systems, which includes those that run by the way of mechanical, electrical, chemical, wind, solar, fluid and/or water power.

Agricultural Processing

Involves students who assemble, transport, process, fabricate, mix, package, and store food and nonfood agricultural products. Products may include the processing of meat, milk, honey, cheese, raisins and other dried fruits, maple syrup, and/or other food items. Nonfood products can include the processing of by-products such as meat, bone, fish and blood meal; tallow; compost; hides; wool and cotton. It can include the cubing and pelleting of forages, as well as producing birdseed and other pet foods. **Note:** the processing of forest products is no longer a part of this proficiency area.

Agriculture Sales Entrepreneurship/Placement

Involves students who sell feed, seed, fertilizer or agricultural chemicals. Students can also own businesses that involve the sales of agricultural equipment, machinery, or structures. Activities can include the merchandising of crops, livestock, processed agricultural commodities, horticultural or forestry items at either the retail or wholesale level.

Agricultural Services

Involves students who work in services offered through agricultural enterprises that deal with custom equipment operation and maintenance, agricultural management and finance, agricultural education, animal breeding, custom bailing, crop scouting, horseshoeing, taxidermy, animal hospitals, custom and contract feeding or other appropriate services.

Beef Production Entrepreneurship/Placement

Includes programs that use the best management practices available to produce and market beef efficiently.

Dairy Production Entrepreneurship/Placement

Involves programs that use the best management practices available to produce and market dairy cattle and dairy products efficiently.

Diversified Agricultural Production

Involves the use of the best management practices available to produce and market efficiently at least one livestock and at least one crop related proficiency.

Diversified Crop Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market efficiently two or more crop related proficiency areas such as grain, fiber/oil, forage, specialty crop, non-horticultural vegetable or fruit production.

Diversified Horticulture Entrepreneurship/Placement

Typically involves producing, processing, and marketing plants used principally for ornamental or aesthetic purposes and fruits and vegetables traditionally related to horticulture. This diversified proficiency area encompasses a student SAE with at least two of the following areas: Floriculture; Nursery Operations; Landscape Management; Turf Grass Management; and Fruit and/or Vegetable Production – such as viticulture (grapes), pomology (fruit trees) and horticulture fruits and vegetable (not including fruit and vegetable row crops).

Diversified Livestock Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market efficiently a combination of two or more livestock related proficiency areas such as beef, dairy, swine, equine, specialty animal, small animal, small animal production or poultry.

Emerging Agricultural Technology

Involves programs where students gain career experiences in new and emerging agricultural technologies such as agriscience, global positioning, biotechnology lab research, computers and others that are not covered by existing categories.

Environmental Sciences and Natural Resources Management

Typically results in FFA members receiving practical experiences in the principles and practices of managing and/or improving the environment and natural resources. Activities can involve managing agricultural waste, recycling agriculture products, cleaning the environment, or serving in the conservation corps. This area can include multiple resource uses; wildlife surveys; erosion prevention practices; public relations and pollution education; land use that regulations that pertain to soil, water and air quality; as well as wetlands, shorelines and grasslands preservation.

Equine Science Entrepreneurship/Placement

Typically provides insights into horse production, breeding, marketing, showing and other aspects of the equine industry. Programs can also include calf roping, barrel racing, rodeo, racing, riding lessons and therapeutic horseback riding if horses are owned and/or managed by a member.

Fiber Crop Production

Involves the use of the best management practices available to produce a market efficiently fiber and/or oil crops such as cotton, sisal, hemp, soybeans, flax, mustard, canola, caster beans, sunflower, peanuts, dill, spearmint and safflower.

Floriculture

Involves the use of the best management practices available to produce and market efficiently fresh and dried field or greenhouse flowers, foliage and related plant materials, including the arranging, packaging and marketing of these materials, for ornamental purposes.

Food Science and Technology

Involves students who work for wages and/or experiences in applying microbiology, food biochemistry or food product research and development to improve taste, nutrition, quality and/or the value of food. Programs can include research, new product development, food testing, grading and inspecting.

Forage Production

Involves the use of the best management practices available to produce and market efficiently forage crops such as non-grain sorghum, alfalfa, clover, brome grass, orchard grass, grain forages, corn or grass silages and pasture.

Forest Management and Products

Involves the use of the best management practices available to conserve or increase the economic value of a forest and/or forest products through such practices a thinning, pruning, weeding, stand improvement, reforestation, insect and disease control, planting and harvesting. It can include experience with the Forest Service, Christmas tree farming, as well as making and selling cedar shakes, firewood and wood ships/mulch.

Grain Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market efficiently grain crops such as corn, barley (including the malting types), millet, buckwheat, oats, grain sorghum, milo, wheat, rice and rye. (Grain production would not include any of the previously mentioned crops where its intended use is for forage.)

Home and/or Community Development

Typically involves improving and protecting the beauty of an area by using natural vegetation or commercial ornamental plants. This area can include activities to modernize a home for better health and comfort by installing or improving water and sanitary facilities, heating and air conditioning or labor saving devices. It can include community and betterment and development activities such as volunteerism to improve the community.

Landscape Management

Typically involves experiences of planting and maintaining plants and shrubs landscaping and outdoor beautification, installing sprinklers and improving recreational areas.

Nursery Operations

Typically provides students with job-entry experiences in areas such as shrubs, tree or other plant production for the purpose of transplanting or propagation. It can include water garden plants produced for sale.

Outdoor Recreation

Typically involves outdoor recreational activities as the primary land use. Some activities best suited to family use or as income-producing enterprises include vacation cabins and cottages, camping areas, fishing, hunting, shooting preserves, guide services, riding stables, vacation farms and guest ranches, natural scenic or historic areas and rodeo events where members do not own or manage horses.

Pomology Production Entrepreneurship/Placement

Involves the use of the best management practices to produce and market efficiently fruit crops such as stone, pome, and citrus fruits; pineapples; coconuts; berries; watermelon; grapes; nuts and all common fruits. (Pome fruits include apples, mayhaws and pears. Stone fruits include peaches, nectarines, plums, apricots, and cherries.)

Poultry Production

Involves the use of the best management practices available to produce and market efficiently domestic fowl such as duck, geese and guinea; chickens; as well as turkeys and their products.

Sheep Production

Involves the use of the best management practices available to produce and market sheep and wool efficiently.

Small Animal Production and Care

Involves the use of the best management practices available to manage, produce and/or market efficiently small pet animals such as rabbits (for pets), cats, dogs, mice, hedgehogs and guinea pigs. Programs can typically provide a service where students care for the well-being of pets. They can also include working at a pet shop or kennel, grooming or training dogs, as well as serving as a veterinary assistant or providing pet sitting service.

Specialty Animal Production Entrepreneurship/Placement

Involves the use of the best management practices available to manage, produce and market efficiently specialty animals covered by none of the existing award categories, including bees, goats, mules, donkeys, miniature horses, meat rabbits, mink, worms, ostriches, emus, alpacas or llamas. Placement experiences can involve working at zoo or at any specialty animal facility.

Specialty Crop Production

Involves the use of the best management practices available to produce and market efficiently crops covered by none of the existing award categories, including sugar beets, dry edible beans, gourds, tobacco, popcorn, Indian and other specialty corns, grass seed, herbs and spices, mushrooms, sugar cane, hops, sorghum cane, confectionary sunflowers or crop seed.

Swine Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market swine efficiently.

Turf Grass Management

Typically involves the planting and maintaining of turf for outdoor beautification, owning a lawn mowing service, improving recreational areas, producing sod for sale and managing golf courses.

Vegetable Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market efficiently crops such as beans, potatoes, pumpkins, sweet corn, tomatoes, onions, zucchini, hot peppers, as well as all canning and common garden vegetables.

Viticulture Production Entrepreneurship/Placement

Involves the use of the best management practices available to produce and market efficiently grapes and/or their by-products.

Wildlife Production and Management Entrepreneurship/Placement

Typically involves activities to improve the availability of fish and wildlife through practices such as trapping, stocking fish and wild game or those that develop new or improve existing land and water habitats for wildlife. This proficiency can include experiences with Fish and Wildlife Departments and Department of Natural Resources. Wildlife, and wild species of ducks, geese, quail and pheasants are eligible in this area if used as an income enterprise.

JUDGING TEAMS

Throughout the year, members of the Shafter FFA Chapter participate in a variety of different judging teams. A judging team is an extension of the classroom and allows members to experience detailed instruction within a particular area of agriculture. In addition, participation in a judging team helps students develop leadership skills and allows them to be recognized for their achievements. The following teams are available for students to become involved in this year:

Vegetable Judging
Pest
Floral Judging

Contests

B.I.G Creed Parliamentary Procedure Opening and Closing Impromptu Speaking Co-Ops	P.O.A Prepared Public Speaking Extemporaneous Speaking Novice records Banking Job Interview

COMMUNITY SERVICE ACTIVITIES

In an effort to make a positive difference in the community, the Shafter FFA Chapter actively participates in a number of community service activities each year. These activities allow FFA members to get involved and make the Shafter community a better place to live and work.

FUNDRAISING ACTIVITIES

The Shafter FFA Chapter is a non-profit, self-supporting organization. The money made from our various fundraising efforts is used to finance FFA events and activities throughout the year.

HISTORY OF SHAFTER FFA

State Officers

1984 Treasurer: John Paveltich

1985 Treasurer: Paul Paveltich

American FFA Degree Recipients

1985 John Paveltich

1987 Paul Paveltich

2006 Noel Penner

James Dewhirst

Dee Anne Kroeker

2010 Matt Whitbey

Elizabeth Wilson

2015 Taylor Sanders

State FFA Degree Recipients

1937	Herbert Neuman
1938	Louis Starrh
1939	Walter Kirschenmann
	Alvin Robinson
1945	Charles Hitchcock
	Fred Starrh
	Donald Zachary
1946	Marvin Kirschenmann
1947	Tom Fletcher
	Leland Kroeker
	Steve Rodriguez
1950	Dee Wilson
1952	Leroy Kirschenmann
1954	Woody Wilson
1955	Sam Parker
1961	Gordan Kirschenmann
1975	Mary Dawson
1977	Ted Elrich
	Charles Hussey
	Scott Pavletich
	Cindy Sapp
1979	Carey Hall
	Ralph Hoover
1980	Dawn Hanselman
	Angie McNabb
	Brock Sapp
	Marty Tasos
	Wayne Williams
1982	John Pavletich
1983	Scott Brant
	Kim Handel
1984	Marshall Bassett
	Anthony Nobles
	Paul Pavletich
	Leland Villalvazo
	David Whitbey
1985	Deene Bittleston
	Tim Deeney
	Steve Wilson
1986	Darrel Grace
	Darrin Filkins
	Andy Love
	Dennis Utt
	Becky Smith
	Teresa Smith
	Dawn Wadman
	Dawnielle Delozier
	Glenn Creekmore
1987	Becky Sapp
	Sam Wilson
	Rey DeLon
	Julie Jameson
	Chad Everett
	Kari Heinsohn
	Joe Smith
	Jack Janzen
	Bibi Carasco
	Kristie Krause
	Stephanie Cortez
	John Hill
	Kristen Zachary
	Laura Reynolds
1988	Bob Bryant
	Scott Chance

1988 Dominic Lucas
con. Jeff Clayton

1989 Terry Clayton
Shawna McCune
Traci Dewar

2002 David Whitbey

2004 Brysen Nixon
Jordan Reimer

2006 James Dewhirst
Dee Ann Kroeker
Colton Parrish
Noelle Penner
Ismael Rendon

2007 Mitchell Deathrage
Elizabeth Wilson
Katelyn Riley
Jacky Aaron
Matt Whitbey
Melissa Bloemhof
Mallory Hansard

2008 Jorge Portillo

2009 Clayton Parrish

2014 Micah Adams
Wilson Hansard
Ashley Hasty
Taylor Sanders
Mason Zaninovich

2015 Christian Acosta
Riley Aguayo
Yazil Castro
Alyssa Hill
Malu Reyes
Carla Tamayo

2016 Victor Diaz
Fernando Garcia
Samantha Johnson
Angelica Lopez
Mayra Lopez
Ashley Mireles
Celeste Ortiz
Maylee Salas
Michael Sharp
Anthony Tucker
Elizabeth Vargas

2017 Samantha Cabrera
Brenda Cuevas
Dustin Giuntoli
Nallely Hermosillo
Yamilet Lopez
Joseph McManus
Maria Meza
Danya Miranda
Carlos Munoz
Pamela Perez
Steve Perez
Genesis Serna
Favian Trujillo

State Champion Judging Teams

1933 Dairy Products

1936 Dairy Products

Policy for Kern County Fair Eligibility

The following list is eligibility requirements for students to exhibit animals through Shafter FFA at the Kern County Fair.

To Be Eligible:

Current Students (Grades 9-12 at the time of the Fair)

1) Students must be members in good standing with the Shafter FFA chapter and enrolled in an Agriculture class taught by a credentialed Ag teacher. Student must maintain a 2.0 GPA and be passing all classes. You must be passing your Ag class with a C or higher. No F's will be acceptable and no more than one D in any classes. If you are not passing a class we cannot pull you out of class for fair.
2) A student cannot switch affiliations (FFA, 4-H, Independent) more than once. If you switch upon entering high school, you must show FFA for the duration of your time at Shafter High School. Once you switch once you must show that species for the organization you switched to.
3) All money, fair and farm contracts, and guidelines must be signed and turned in prior to receiving an animal, if the set deadlines are not met, student will forfeit their right to show for Shafter FFA.
4) To be eligible to show for Shafter High School, the following criteria must be met by the student: Participated in 5 activities at the chapter level, 2 activities above the chapter level, and 8 hours of community service recorded in their SAE Record Book. *Does not to apply to incoming 8th graders.
5) Students must satisfactorily keep record books up to date according to their assigned advisor.

Graduate Students

1) A graduate student of the program can exhibit at the Kern County Fair with the species advisor permission one year following graduation from high school.
2) Graduate student MUST be enrolled in an Agriculture class during their ENTIRE senior year with satisfactory attendance and 2.0 GPA to be eligible.
3) Students must satisfactorily keep record books up to date according to their assigned advisor.
4) A graduate student must be actively seeking to achieve the goal of receiving their American FFA Degree in order to exhibit livestock, and this project will help them achieve their goal.
5) Graduate students will have last priority to use the school farm facility. If the facility is full, then it is the graduate's responsibility to locate housing for the project.
6) Graduate students must be responsible for feeding, caring and attending showmanship practices during the summer.
7) At fair, the graduate student must participate in the market class, showmanship class, and barn duty in order to sell your animal under Shafter FFA.
8) All graduates will adhere to all Shafter FFA and Kern High School District policies.

Shafter FFA School Farm Contract

It is a privilege to keep and house a project at the school farm. Along with this privilege come certain expectations and responsibilities. The instructors are here to guide you with your project, not to maintain and care for the project. It is your responsibility to care for and manage your project.

You share the farm with fellow students; therefore, cooperation and teamwork are expected. Even though these are individual projects, it will take a group effort to ensure everyone's success.

Below you will find a set of expectations that must be followed in order to retain your privilege of using the school farm. Please read through these expectations with your parent/guardian. This contract must be signed and returned to your project advisor before your project begins at the farm.

General Rules

1. **Any students who does not follow the below set of rules will receive a written strike. After three strikes, the student will not be allowed to show for Shafter FFA and animal will be removed from school farm.**
2. When working with your animal, you are required to wear jeans and closed toed shoes for your safety. Shorts and open toed shoes are strictly prohibited.
3. Any change to any farm structure or pen must receive prior authorization from your advisor.
4. The use of any school equipment must be under the direct supervision of an Agriculture Instructor.
5. For show projects, feed, supplies, and FFA jackets must be bought by the students.
6. The school farm is an extension of the school campus, therefore all school rules are in effect and proper behavior is expected at all times.
7. The farm must be kept neat and clean at all times. It is your responsibility to keep your project's designated area clean and free of debris. All trash must be put in proper receptacles. Failure to keep your area clean will result in a fine or working with the farm manager to make up for his lost time.
8. Motor vehicles are not allowed on the farm. All students and parents/guardians must walk onto the farm. Vehicles must be parked outside the farm.
9. No Dogs are allowed on the school farm at any time.
10. The farm will ONLY be open from 6am-7pm daily. Students, parents, or guardians can only be on the farm after hours IF an advisor is present. NO person is allowed on the farm without an advisor present. If you need to be on the farm after hours, you must schedule the time with an advisor a week in advance.
11. To be eligible to show a larger animal (commercial/dairy heifer or steer) you must have shown a smaller animal (pig, goat, or lamb.) the previous year. The only exception will be if you have shown a larger animal in 4-H, Grange, or as an Independent, or live on a dairy or ranch.
12. If the advisor(s) feel that you cannot handle the project or are not following rules, your project can be terminated at any point.
13. Record books must be current and meet the approval of the project advisor prior to loading your animal for fair.

Animals

14. Before purchasing an animal on your own you must have prior approval from the instructor.
15. The student exhibitor must buy and own their animal. No borrowed or leased animals will be exhibited at the Kern County Fair.
16. Instructors must have 24-hour notice before any projects are moved on or off the farm. Animals are not to be moved from one pen to another without advisor permission. Instructors have the right to refuse housing of any project at the school farm.
17. All animals must be fed at the agreed feeding times. In emergency situations, instructors must be notified and other arrangements must be made.

18. Under no circumstances are you allowed to give your animal any medication, without first clearing it with your advisor. The ONLY exception being that of a medicine that is administered in an emergency by a licensed veterinarian. However, it is still your responsibility to notify the advisor of the medication that was given to your animal.
19. In the event that an animal is abused (i.e. physical abuse, not being fed, neglected), you will be asked to remove your animal immediately. If student project is to be removed from School Farm facility, student will be given 48 hours to remove animal, if not removed in the required time span, arrangements will be made to take animal to sale and a transportation charge of $100.00 will be assessed to the student and the remaining profit from auction will be forwarded to the student.
20. If the student decides to take their animal off the farm for any reason, and brings back a disease or parasites, the student will be responsible for all cost incurred treating other school or student owned animals at their own expense.
21. It is mandatory for all students to be present when their animals are being transported to and from the fair for any reason (tagging). As well, the advisor will designate what days are mandatory for exhibitors to be present at the fair.

Breeding Projects

22. For breeding projects, students are responsible for purchasing their own feed, supplies, and paying a pen fee of $20 per animal per month. This means that the advisor and farm manager are not responsible for making sure that there is feed available for the animal(s).(See advisor for breeding contract)

Bills/Finances

23. Any vet bills that are incurred on animals kept at the school farm will be paid for by the student.
24. All students must obtain enough sponsors to cover 75% of all expenses prior to hauling animals to fair. Failure to do so will result in entries being pulled from the Kern County Fair. The student will then be responsible to find a buyer and have the animal removed from the farm no later than 2 weeks after the year's fair.

Project Meetings

25. All project meetings and farm clean-ups must be attended. If you cannot attend, prior arrangements must be made with the instructor. One week prior notice must be given. In cases of emergencies, please notify your instructor ASAP.
26. Each student is required to attend a weekly weigh meetings, and showmanship practices that are offered by the Advisor. After thirty minutes the practice will not be counted as being attended by the student regardless of their participation.
27. Animals that are not housed at the school farm must schedule project visits with their advisor and haul their own animals to fair.

Kern County Fair

28. If, at one week prior to fair, you are unable to control your animal or load it safely in and out of the trailer it will not be allowed to be hauled or allowed to be exhibited at the Kern County Fair. This is in the best interest of the student exhibitor and the public's safety.
29. During Kern County Fair all students are required to participate in showmanship as well as their appropriate market class. If a student misses their market class or auction because they were not paying attention- they will not be allowed to show the following year.
30.. Each student is responsible for fitting their own animals; students can work with each other as needed. There are absolutely no professional or amateur fitters allowed working on your animal. The advisor will appoint someone to demonstrate or show students what to do.
31. If any animal fails a drug test at the Kern County Fair, the student forfeits the right to show for Shafter FFA for life.

After the Fair

32. No Market Animals are allowed to be brought back to the school farm after the Kern County Fair. If your animal does not sell you are responsible to find a buyer and/or other housing for your animal.
33. A $50.00 cleaning fee will be assessed one week after the completion of fair if the student fails to properly clean their pen after the animal is removed.
34. **To receive fair checks, students are required to complete their record book, hand write Thank You cards (in self-addressed stamped envelopes), and pay any fees no later than two weeks after the conclusion of the Kern County Fair. Failure to do these items will disqualify the student from showing under Shafter FFA at the next year's fair.**

I agree to follow the rules and advice of the agriculture instructors throughout the duration of this project. I understand that breach of this contract can result in forfeiture of farm use or the possibility of being removed from the Agriculture Program at Shafter High School. I also understand that the Kern High School District and its personnel are in no way responsible for my project, feed or equipment.

Student Name _____ Student Signature _____

Parent Name _____ Parent Signature _____
Advisor Name _____ Advisor Signature _____
Date _____

Shafter FFA Parent's Code of Conduct

Student Name: _____ **Date:**_____

As a parent and role model, parents and coaches shall maintain a high level of professionalism at the Kern County Fair.

Before an event, every parent of each exhibitor shall:
1.1 Inform students of show rules;
1.2 Be aware of schedules;
1.3 Prepare students for show content and safety guidelines;
1.4 Be a good adult role model.

During a contest every parent of an exhibitor shall:
2.1 Assist contest officials when needed;
2.2 Abide by rules and expectations for that particular event including but not limited to rules regarding physical location;
2.3 Ensure student cell phones are not in use;
2.4 Act in a professional and ethical manner.

After the contest every parent of an exhibitor shall;
3.1 Conduct themselves in a professional manner during critique and awards;
3.2 Treat contest officials and other fair committee members with respect;
3.3 Be a good role model for their team;
3.4 Model good sportsmanship;
3.5 Present any protests or inquiries according to Kern County Fair policies;

At any time in relation to the show, parents shall:
4.1 Behave in a professional manner;
4.2 Refrain from knowingly providing misleading or incorrect information
4.3 Avoid creating or taking part in confrontational situations involving fair officials, other parents, or Agriculture Teacher.
4.4 Follow contest rules or guidelines;
4.5 Avoid encouraging or allowing any student to break contest rules;
4.6 Avoid intentionally putting a student or another person in harm's way.

If a contest supervisor or agriculture teacher finds a parent to be in violation of the Code of Conduct, the said contest supervisor or teacher will turn the parent over to the Kern County Fair Livestock Office. The Livestock Office will then determine the consequences for the parent. By signing below you agree to the above guidelines.

_____ _____

Parent Name Parent Signature

SHAFTER FFA CHAPTER CONSTITUTION

ARTICLE I – Name and Purposes

Section A The name of this organization shall be the "Shafter Chapter of the Future Farmers of America" and the letters, "FFA" may be used to designate the chapter, its activities, or members thereof.

Section B The purposes for which this chapter is formed are as follows:

1. To develop competent and aggressive agricultural leadership.
2. To create and nurture a love of agricultural life.
3. To strengthen the confidence of students of vocational agriculture in themselves and their work.
4. To create more interest in the intelligent choice of agricultural occupations.
5. To encourage members in the development of individual occupational experience programs and establishment in agricultural careers.
6. To encourage members to improve the home and its surroundings.
7. To participate in worthy undertakings for the improvement of the industry of agriculture.
8. To develop character, train for useful citizenship, and foster patriotism.
9. To participate in cooperative effort.
10. To encourage and practice thrift.
11. To encourage improvement in scholarship.
12. To provide and encourage the development of organized recreational activities.

ARTICLE II – Organization

Section A The Shafter Chapter of FFA is a chartered local unit of the South Valley Section in the California Association of Future Farmers of America which is chartered by the National FFA Organization.

Section B This chapter accepts in full the provisions of the constitution and bylaws of the San Joaquin Region Constitution, California Association of FFA as well as those of the National FFA Organization.

ARTICLE III – Membership

Section A Membership in this chapter shall be of three kinds: (1) Active; (2) Alumni; and (3) Honorary, as defined by the National FFA Constitution.

Section B The regular work of this chapter shall be carried on by the active membership who are enrolled at Shafter High School.

Section C Honorary membership in this chapter shall be limited to the Honorary Chapter FFA Degree.

Section .D Active members in good standing may vote on all business brought before the chapter. An active member shall be considered in good standing when:

1. They attend local chapter meetings with reasonable regularity.
2. They show an interest in, and take part in the affairs of the chapter.
3. Are properly affiliated with the state and national FFA organizations.

Section E Alumni members is limited to students that were active members their entire 12th grade year and graduated from Shafter High School.

Section F Paid FFA members are required to participate in chapter activities as a portion of their grade.

ARTICLE IV – Emblems

Section A The emblem of the FFA shall be the emblem for the chapter.

Section B Emblems used by the members shall be designated by the national organization of FFA.

ARTICLE V – Membership Degrees and Privileges

Section A There shall be four grades of active membership in this chapter. These grades are: (1) The Greenhand FFA Degree, (2) The Chapter FFA Degree, (3) The State FFA Degree, and (4) The American FFA Degree.

All "Greenhands" are entitled to wear the regulation bronze emblem pin. All members holding the Degree of Chapter FFA are entitled to wear the silver emblem pin All members holding the State FFA Degree are entitled to wear the regulation gold emblem charm. All members holding the American FFA Degree are entitled to wear the regulation gold emblem key.

Section B Greenhand FFA Degree. Minimum qualifications for election: (Refer to State Constitution for a complete list of degree requirements.)

1. Be regularly enrolled in a class in vocational education course for an agricultural occupation and have satisfactory and acceptable plans for a program of supervised farming, and/or other agricultural occupational experiences.
2. Learn and explain the FFA Creed, Motto, and Salute.
3. Describe the FFA emblem, colors, and symbols.
4. Explain the proper use of the FFA jacket.
5. Have satisfactory knowledge of the history of the organization.
6. Know the duties and responsibilities of the FFA members.
7. Personally own or have access to Official FFA Manual.
8. Submit written application for the Degree for Chapter records.

Section C Chapter FFA Degree. Minimum qualifications for election: (Refer to State Constitution for a complete list of degree requirements.)

1. Must have the Degree of Greenhand and have a record of satisfactory participation in the activities of the local chapter.
2. Must have satisfactorily completed at least one year of instruction in vocational agriculture, have in operation an approved supervised farming, and/or other agricultural occupational experience program, and be regularly enrolled in a vocational agriculture class.
3. Be familiar with the purposes and programs of activities of the state association and national organization.
4. Be familiar with the provisions of the constitution of the local chapter.
5. Be familiar with parliamentary procedure.
6. Be able to lead a group discussion for fifteen minutes.
7. Must have earned by his/ her own efforts from his/ her supervised farming and/or other agricultural occupations program and deposited in a bank or otherwise productively invested at least $150 or worked 100 hours on his/her SAE in excess of scheduled class time.

Section D State FFA Degree: Minimum qualifications for election:

1. Qualifications for the State FFA Degree are those set forth in the Constitution of the State Association

Section E American FFA Degree. Minimum qualifications for election:

1. Qualifications for the American FFA Degree are those set forth in the Constitution of the National FFA Organization.

Section F Special Committees shall review the qualifications of members and make recommendations to the chapter concerning degree advancement.

ARTICLE VI – Officers

Section A The officers of the chapter shall be as follows: President, Vice President, Secretary, Treasurer, Reporter, and Sentinel. 2nd Vice President, Historian, and two committee chairs may also be elected depending on the amount of students running for office. The local Advisor shall be the teacher of vocational agriculture in the school where the chapter is located. Officers shall perform the usual duties of their respective offices.

1. There shall be an election of six freshman students to be Greenhand Officers in the fall of each year.

Section B Officers must have and maintain a 2.0 GPA and a "C" or higher in all their agriculture classes.

Section C All elected chapter officers shall hold their office position for one year. The annual officer tenure is Banquet to Banquet.

Section D The officers of the chapter together with the chairmen in charge of the major sections of the annual program of activities shall constitute the Chapter Executive Committee. The Executive Committee shall have full power to act as necessary for the chapter in accordance with actions taken at chapter meetings and various regulations or bylaws adopted from time to time.

Section E All officers will partake in 100% of our chapter meetings unless a valid reason is provided. Notification of not being able to attend should be made to an advisor before the meeting.

Section F All officers are required to fulfill their officer contract.

Section G Recognition of officers at our annual banquet will depend on the completion of the officer contract and the discretion of the advisor.

Section H Process of selecting chapter officers is as follows

1. Members will vote for 6-8 candidates per ballot.
2. Once votes are counted, the candidates with the highest cumulative scores become the officer team. The scores will consist of: Speech, participation in the chapter, interview, teacher recommendation, votes, and application.
3. The interview committee will consist of the advisors and senior officer members.
4. Once the top candidates have been selected all the advisors will discuss and choose positions for those officers.

Section I The recommendations for a candidate's resume interested in the chapter President's position will be as follows:

1. Preferably a junior or senior
2. Two years or more in the Shafter FFA and agriculture program
3. Earned the Chapter Degree
4. Been a State FFA Conference Delegate
5. Participated in the following:
   a. Opening and Closing Ceremonies Contest
   b. Any Public Speaking Contest (prepared, extemporaneous, or impromptu)
   c. Have been trained in and properly used Parliamentary Procedure.
   d. Chaired an event
   e. Maintained a 2.0 GPA overall and 80% in their agriculture class.

If there are no qualified junior or senior according to the above rules, the four advisors may recommend a sophomore to the position of President.

Section J Officer Removal:

1. The removal of an officer will be carried out when the officer is showing neglect of irresponsibility toward their office position.
2. The officer's contract and the records kept by both the Secretary and the advisors will be used to evaluate the officer.
3. An officer will be removed by letter and direct conversation with the advisors.
4. Reasons for Removal
   a. Student breaks a major rule regarding the chapter or KHSD policies.
   b. Section E & F are not fulfilled.
   c. Student cannot maintain a 2.0 GPA in all their subject areas (see # 5).
   d. Student must maintain a C in all their Ag class.
   e. Student abusing the FFA Code of Ethics.
   f. Student breaches 3 Strike Rule (3 strike rule consists of 3 violations of the officer contract at the advisors discretion with formal documentation to be brought before the officer). .
5. Regarding letter grade or GPA:
   a. Student is put on one quarter probation to get back into good standing with the office position.
   b. If probation is during first quarter of spring, then the officer recognition award will be held until progress report is turned in by the instruction approximately one week before banquet

Section K When an officer position becomes void prior to the termination of its contract the historian or one of the committee members may be moved up if applicable and with advisor approval. If there is no historian or committee member, then the next highest ranking candidate will fill the position.

Section L The officer contract will be developed by the advisors. They will be in contract form and require at least four signature- the officer, the parent/guardian of the officer, and two advisors.

Section M An FFA member who chooses to run for a higher office position (sectional, regional, or state) must meet the following requirements:

1. Been a chapter officer who is in good standing or have advisor recommendation
2. Participated in Opening and Closing Ceremonies Contest and a Public Speaking Contest.
3. Must have been trained in and properly used Parliamentary Procedure.
4. Must have earned at least 125 points or more from August to February.

Section N The duties of the Executive Committee and four advisors will be as follows:

1. Meet every Wednesday at lunch; excluding finals, school breaks, and when more than two advisors cannot be present.
2. Enforce the Constitution and Bylaws.

ARTICLE VII – Meetings

Section A Regular chapter meetings shall be held once a month during the school year and once during the remaining months of the year at such time and place as is designated by the Chapter Executive Committee. Special meetings may be called at any time.

Section B Standard meeting equipment shall be used at each meeting. All regular meetings shall open and close with the official ceremony. Parliamentary procedure shall be used in transacting all business at each meeting.

Section C Delegates, as specified by the State Constitution, shall be elected annually from the active membership to represent the chapter at the State Leadership Conference. Other delegates may be named as necessary in order to have proper representation at various other FFA meetings within the State.

Section D A majority of the active members listed on the secretary's membership roll shall constitute a quorum, and a quorum must be present at any meeting at which business is transacted or a vote taken committing the chapter to any proposal or action.

ARTICLE VIII – Leadership Conferences

State Conference

Section A The following are how members shall be selected to attend:

1. Freshman to Seniors may attend
2. A senior must earn the right to go to state convention. The following will determine their participation:
   a. Participation in a State Competition
   b. Receiving a State Level Award
   c. Running for State Office
   d. Advisor approval based on activity in the chapter
3. All freshman to junior students will be selected based on the following criteria:
   a. The first students to turn in their application and deposit money by the given date and time.
   b. Have a 2.0 GPA
   c. Participation and attitude in the Shafter FFA chapter.

Other Leadership Conferences

Section A This section of Article VIII includes Greenhand Leadership Conference, Made For Excellence and Advanced Leadership Academy.

Section B Members will be chosen by advisors to represent Shafter at the conference.

1. Attendees may be asked to go or will have to sign up with the advisors in order to be chosen.
2. In some cases an application may need to be filled out.

Section C Conferences will be paid for by the individual, chapter, or a combination of both depending on the conference.

Section D Overnight Trips- All KHSD rules and chapter rules will be enforced.

ARTICLE IX – Kern County Fair

Section A A student must be a paid member enrolled in the Shafter Agriculture Program, or continuing their education during their junior/senior year in an agriculture class at the ROC facility.

Section B Students must be active in their participation in the Shafter FFA. This means the student must have participated in 5 chapter activities and 2 above the chapter activities by the time the first Fair Meeting is held.

Section C A student is required to have a 2.0 overall GPA and "C" or better in all their agriculture classes.

Section D A student will follow all KHSD, Kern County Fair, and Shafter FFA Farm Contract rules. If they are not followed the student will not be allowed to show for Shafter FFA.

Section E The rules that will need to be followed will be set each year at the Fair Meeting in the spring.

Section F All signed contracts, grade checks, and paperwork must be turned in to the species advisor before the student may start their project.

Section G The Kern County Fair is a school function and all school and KHSD rules must be followed. If they are not the student will report to the Dean of Students and be removed from participation of the fair.

Section H Incoming Freshman must take the following steps in order to show:

1. Meet with the species advisor in person.
2. Discuss the responsibilities and requirements associated with the project
3. Signed contracts, costs and payments made in advance to the start of the project.

Section I An alumni student may show under Shafter FFA if the following are true:

1. Are actively pursuing the American Degree
2. Completed their entire 12th grade year in the Shafter FFA program
3. Graduated from Shafter High School with a cumulative GPA of 2.0
4. Passed all their agriculture classes their senior year with a "C" or better
5. All previous record books are completed and up to date
6. Wears the Shafter FFA Jacket during all classes they are showing in the Kern County Fair.

Section J If a student enrolls in the Shafter FFA program and then drops out of the classroom at any point (before or after fair, at the fall semester, in the spring, or at the end of the year) the student loses their privilege to show for the Shafter FFA.

Section K If a student who is enrolled in Shafter FFA program has an animal on the Shafter Farm Facility and decides to drop the program or not show for Shafter FFA, they must move their animal off the Farm immediately.

ARTICLE X – The Classroom and Farm Laboratory

Section A The goal of the classroom is to teach students an appreciation of what agriculture is and how it affects our daily lives.

Section B The goal of the FFA is to teach students an appreciation of leadership. The FFA is an integral part of the grading that takes place in the classroom.

Section C Overall grading will consist of participation in the classroom, FFA, outside performance on the two acre Farm Laboratory, and extra credit (at teacher's discretion).

Section D It is the choice of the student to take the classes in the Shafter Agriculture Program. If the student does not wish to abide by the rules of the program and the KHSD, then they lose the liberty of returning the following year (or semester).

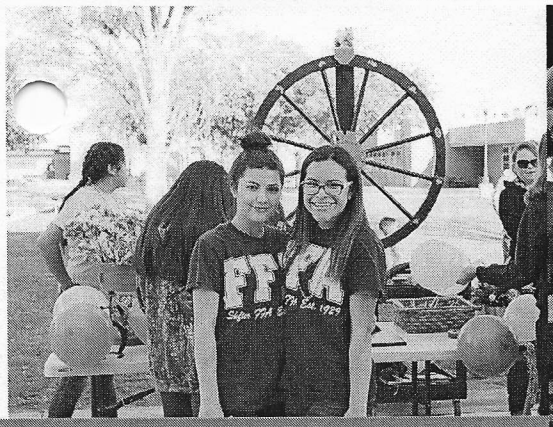
Section E The Farm Laboratory site will be used as a hands on learning facility. All classroom and KHSD rules apply as the farm is an extension of Shafter High School.

Section F The goal is to create a fun and safe learning environment that can be utilized by the agriculture students and serves as a teaching tool for all grade levels that visit the facility.

ARTICLE XI - Amendments

Section A This constitution may be amended or changed at any regular chapter meeting by a two-thirds vote of the active members present providing it is not in conflict with the state association constitution or that of the National FFA Organization.

Section B Bylaws may be adopted to fit the needs of the chapter at any regular chapter meeting by a two-thirds vote of the active members present providing such bylaws conflict in no way with the constitution and bylaws of either the state association or the national organization.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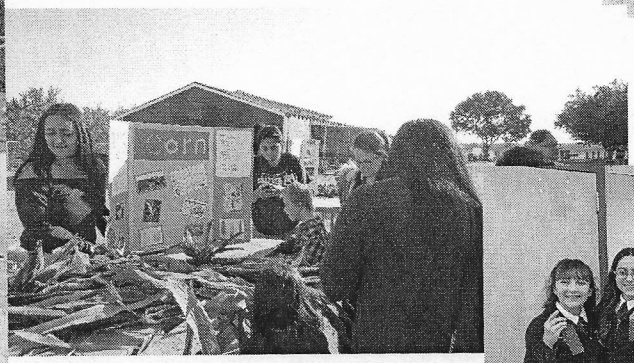
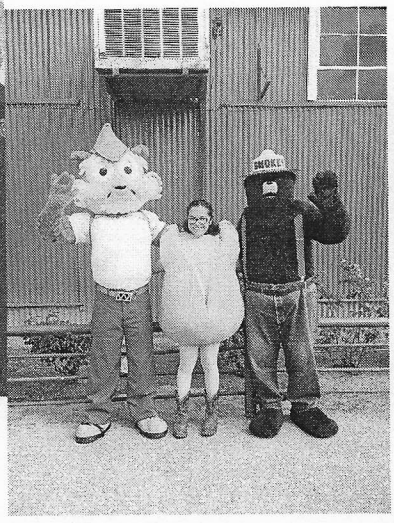
SOUZA
FAMILY
VINEYARD

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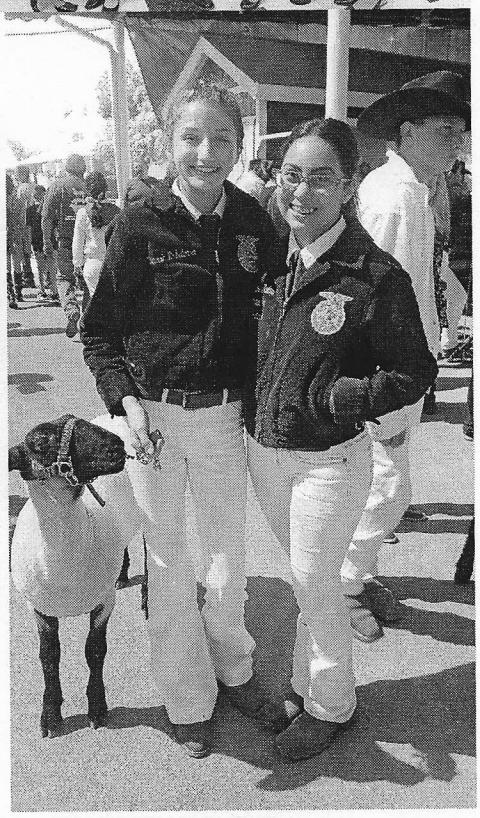


Appendix

Dear Parents and SHS FFA Exhibitors,

We are excited for your student's interest in a livestock project for the Kern County Fair. Livestock projects are a great way for students to "learn by doing." Students will learn valuable skills such as responsibility, commitment, and work ethic outside of the classroom setting. Livestock projects require a great deal of commitment from both the student and the parent. The outcome at fair is directly tied to how much time and effort students put into these projects over the summer.

Ownership period is a minimum of 60 days. We will be starting these projects at the end of the current school year. The exact start date will vary by species. These projects will require a commitment from both the parent and student throughout the summer until the conclusion of the 2017 Kern County Fair in October. Students will be responsible for training their animal to walk and setup for showmanship daily as well as attend weekly showmanship practices. Students will have to feed and check on their animal in the morning and again at night as well as keep their pen and livestock barn clean. For the entire duration of the project students will be required to log on to their AET record book and keep track of expenses, income, and hours worked. This commitment should not be taken lightly students will often show in their record books over 500 hours invested in an individual project. While you may go on a family vacation no other student will know your animal as well as you do or take care of your animal as well as you do.

Livestock projects also require a financial commitment. Students will not be receiving their fair checks until December or January. Below is an estimated budget for all animals. Additional expenses may be required if your animal is underweight or if your animal gets sick and a veterinarian is called out. All Students are responsible for purchasing their own feed and supplies for the duration of the project.

Expenses	
Market Animal (Hog, Sheep, Goat)	$ 350.00
Feed	$ 320.00
Entry Fees	$ 45.00
Insurance	$15.00
Supplements and Medicine	$100.00
Shavings	$50
Equipment	$ 30.00
TOTAL EXPENSES	$ 910

Income

Sale at Fair	$ 500-700.00 (average price without Buyer 9)
Profit/Loss	***$ -200***

Supervised Agriculture Experience projects are a key component of an agriculture department. Showing livestock at the Kern County Fair is not a requirement for Shafter FFA members. Students can have agribusiness, agriscience, or plant based SAE instead of livestock. Due to the limited space at the Shafter High farm and the limited resources of the Shafter High Agriculture department an application process for showing livestock will begin in February. Students are able to choose to show either sheep, goats, poultry, or hogs. Below are a few of the requirements students will have to have met to be eligible to show for Shafter FFA.

Eligibility Requirements

- Prior to being allowed to show for Shafter High School, the following criteria must be met by the student: Participated at 5 activities at the chapter level, 2 activities above the chapter level, and 5 hours of community service recorded in their SAE Record Book.
- Students must be members in good standing with the Shafter FFA chapter and enrolled in an Agriculture class. Student must maintain a 2.0 GPA and be passing all classes. Only one D is acceptable, and you cannot have any F's. Students must have a C or better in their Agriculture class. If you cannot pass your class we do not see that you will be able to take care of an animal on a daily basis.

Graduate Eligibility Requirements:

- Graduate student MUST be enrolled in an Agriculture class during their ENTIRE senior year with satisfactory attendance and 3.0 GPA to be eligible.
- A graduate student must be actively seeking to achieve the goal of receiving their American FFA Degree in order to exhibit livestock, and this project will help them achieve their goal. Students should be within 150 hours and or $1000 of earning their American degree. There must be a purpose to this student exhibiting; they cannot show because they want to show.

We look forward to answering any questions you may have and helping to prepare your student for the best project to fit their needs. Any questions may be emailed to elizabeth_bledsoe@kernhigh.org .

Sincerely,

Elizabeth Bledsoe, Mark Morales, Teddi Nichols, and Ellen Renick

Kern County Fair Livestock Exhibitor Application

Applicant's Name:	
Student ID:	
Year in FFA: (1,2,3, and 4)	
Do you need to keep you animal(s) at the school farm?	Yes / No
Species Desired: You may list more than one. List your first choice first. DO NOT LIST SPECIES YOU DO NOT WANT TO SHOW.	1. 2. 3. 4. 5. 6.
Do you want to show more than one species if available? (Circle)	Yes / No
Would you like to show small animal if available? (Circle)	Yes / No
Which small stock species would you like to show? (If yes above)	Turkey Chicken Rabbit Cavies

Please attach the following documents to your application (check them off after you attach)

☐ **Transcripts:** Must be a minimum 2.0 with a C or better in all Ag Classes.

☐ **Complete Recordbook Report (AET)**

Due: / /

General FFA Involvement Points

In the boxes below, please list the NUMBER of activities that you have participated in at each level (chapter, section, region, state, and nationals). You can find this information in your AET recordbook under "Complete Recordbook Report" on the reports tab. Any activities not listed in the AET recordbook will not be counted towards your total score. Any applications that are found to be inaccurate will be immediately disqualified. This includes: 1) Adding more points to your application than you have actually earned 2) Counting activities under the wrong category 3) Adding activities to your recordbook that you have never competed/participated in.

Student exhibitors must have a minimum of 5 chapter and 2 activities above the chapter level.

*****Multiply your points in the box on the left by the number in the middle. Insert the total on the right.*****

Highlight yellow in Recordbook report	Number of Chapter Level Activities	x1 pt each	Total Chapter Points: 0
Highlight orange in Recordbook report	Number of Section Level Activities	x2 pt each	Total Section Points: 0
Highlight green in Recordbook report	Number of Region Level Activities	x3 pt each	Total Region Points: 0
Highlight blue in Recordbook report	Number of State Level Activities	x4 pt each	Total State Points: 0
Highlight pink in Recordbook report	Number of National Level Activities	x5 pt each	Total National Points: 0

Total General FFA Involvement Points: 0

Other Points

Below are the other school, community, SAE and FFA activities that we take into account in deciding which students will be selected to show at the Kern County Fair. Please see the smaller text below each field to determine where to find this information.

GPA Points

Please write your 9-12 TOTAL GPA into the box below. Must match the GPA on your transcripts. Multiply your GPA by 3, and put the number in the box on the right.

Transcripts | | x3 | GPA Points |

SEMESTERS of Agriculture Classes Taken

Includes all agriculture pathway classes completed or currently enrolled in. A full year of each agriculture class is 2 semesters. Please multiply the number of SEMESTERS of agriculture classes you have taken or are taking by 2 and put the number in the box on the right.

Line 5b AET Recordbook Report | | x2 pt each | Ag Class Points |

Number of FFA SAE Projects Completed/In Progress

Must include complete project plans, budgets (not applicable for placement SAEs), journal entries, and financial entries for each project to receive points. You may include your current SAE ONLY IF you have a current completed project plan, as well as budget and journal entries. Please multiply the number of SAEs in your recordbook by 5 and put the number in the box on the right.

Line 1 AET Recordbook Report | | x5 pt each | SAE Points |

Community Service

Please list the number of hours of community service that you have completed in the box below. Only community service recorded in the AET will be accepted. Community service must be rendered with a 501(c)3 non-profit organization. A maximum of 50 hours of community service will be counted towards your application. Please multiply your number of community service hours by 0.5 and put the number in the box on the right.

Section E Community Service AET Recordbook Report | | x0.5 pt each | Community Service Points |

Number of FFA Offices Held

Includes all FFA offices held at the chapter, section, region, and state level. Multiply the number of offices by 5 and insert the number in the box on the right.

Section C AET Recordook Report | | x5 pt each | FFA Office Points |

Number of Proficiencies Won

You may count winning chapter, section, region, and state as seperate awards (earn 5pts each). Awards must be recorded in your recordbook. Multiply the number of proficiencies you have won by 5 and enter the total in the box on the right.

Section E FFA Competitions AET Recordbook Report | | x5 pt each | Proficiency Points |

Total Other Points

Kern County Fair Signature Page

Above the Chapter activity

In the box to the right, please list the ABOVE THE CHAPTER LEVEL activity that you have/will participate in during the 2016-2017 school year. **Failure to compete above the Chapter level activity will result in your removal from the showing list.**

The show list will be based upon the number of total weighted points accumulated by each student. The number of points each students has will be divided by the number of years that they have been in agriculture classes at Shafter High School in order to determine the weighted average. Students will be ranked based upon total weighted points, and awarded their first choice animal as available down the list. Students who wish to show two SALEABLE ANIMALS (1 large and 1 small) must be in the top 20% of all applicants during that year in order to be eligible. Students below the top 20% may be eligible to show multiple species if space is available in their second choice species. There is no "magic number" of points that will guarantee students showing a livestock species. Top 20% will vary based upon applicants each year.

By signing below, I hereby certify that the information contained within is true and correct. I understand that any fraudulent applications will be disqualified without notice. I also certify that I understand that both student applicant and a parent/guardian must attend the exhibitor meeting in April or May (Date TBD) in order to be eligible to show, and that the student applicant must maintain a 2.0 GPA with no "F" grades for both semesters and a C or higher in their agriculture class. I also understand that applications will ONLY be accepted by returning exhibitors if the returning exhibitor obtains a signature from their previous species advisor. Advisor signatures must be obtained BEFORE parent signatures. Advisors may deduct points from applications if there were behavior, punctuality, or attendance issues at the previous year's fair.

TOTAL POINTS. Please add your "General FFA points" and your "Other Points totals.

_____
Student Signature

WEIGHTED TOTAL POINTS (please divide your total points by the number of years you have been in agriculture classes. Graduates, divide by 5.

_____
Parent Signature

Discipline/Attendance (Student has no major discipline problem or attendance problems)

_____
Dean of Students/ Vice Principle

_____
PREVIOUS Species Advisor Signature (Returning showmen only)

Notes regarding point deductions from previous species advisor:

POINT DEDUCTIONS

DO THIS BOX WITH PREVIOUS ADVISOR BEFORE PARENT SIGNATURE

Kern County Fair Financial Signature Page

Below outlines expected cost of the livestock project offered by Shafter High School Agriculture Department and the obligations of both the Agriculture Department and Exhibitors

Expenses

Market Animal (Hog, Sheep, Goat)	$ 350.00 +
Feed	$320.00
Entry Fees	$45.00
Insurance	$20.00 +/-
Supplements and Medicine	$100.00
Shavings	$50+/-
Equipment	$30.00
TOTAL EXPENSES	$915

Income

Sale at Fair	$ 500-700.00 (No Buyers are guaranteed. Students need to procure sponsors for at least their projects break even point.)
Profit/Loss	***-$200***

Permission of the Species Advisor is required before purchasing any animal that may be exhibited on behalf of Shafter FFA and Shafter High School

The Shafter FFA will not facilitate the purchase price of any animals or items. It is 100% the students/exhibitors responsibility to pay for all items including but not limited to: Livestock, Vet Bills, Feed and Fair Entries. Fair checks will be picked up by the advisor and will be given to students upon completion of all livestock

The USDA does offer project loans that are not affiliated with the school in any way. However, Students are still 100% responsible for repayment of the loan. Fair Checks are sent to the USDA and are not seen by Shafter High School. For More information please see an Advisor.

_____

Parent/ Guardian Signature

_____

Student Signature

SHAFTER FFA CHAPTER

Application for State FFA Leadership Conference
DUE to Ag Teacher by 3:30 on January 13, 2017.
NO MONEY WILL BE ACCEPTED AT THIS TIME.

Eligibility to Attend State FFA Leadership Conference
Students eligible must be a member in good standing with the Chapter and with Shafter High School. They must have a minimum 2.0 GPA and be able to attend the entire trip from Saturday April 22, 2017 to Tuesday April 25, 2017. Candidates must demonstrate active participation in events of the FFA Chapter. First priority will be given to students that have a reason for attending the conference (Contest, delegate, committee chair) and lower classmen. Registration costs will be paid by the FFA Chapter but any student that is selected to attend the conference will be responsible for **$200** to be applied towards the cost of hotel rooms. Students that are eligible to attend will receive permission slips on Wednesday January 18, 2017. We will be taking the first 27 students who turn in their paperwork and **receipt** of deposit of $40 to Ms. Bledsoe (room 1405) starting at 7:30AM on Thursday January 19th, 2017. Final payment for hotels will be due by March 31st. **Failure to cancel by April 3rd will result in the loss of your deposit and all money paid.**

Applicants Name: _____

Year in School: _____ **Student ID:** _____ **Ag Teacher:** _____

Do you have a reason for attending the State FFA Leadership Conference? ☐**YES** ☐**NO**

Explain Reason: _____

_____

1. Student's fall semester grade point average. _____
   Due to the fact students will be missing two school days for this leadership conference grades are extremely important. FFA members are students first and foremost therefore students with F's for semester grades will be ineligible. Students with two or more D's will be ineligible. We will look at students with 1 D on a case by case basis. Students must have a C or better in their agriculture class.

2. List all FFA CDEs you have participated in. Show the years and involvement.

3. List all FFA Offices you have held.

4. If you have not held an FFA Office yet have you ever ran for either Greenhand or Chapter Office. Please explain.

5. List the SAE(s) you have kept during your FFA career.

6. List other FFA activities that you have participated in at the chapter, section, region, and state level.

7. List all extracurricular school activities you participated in during high school. Include all other organizations, clubs and sports. Show the years that you participated and explain your involvement.

8. List all community activities. Include the years participated and explain your involvement. Also include offices held and any awards received. (Church, clubs, scouts, 4H and etc.)

9. List your future plans and goals for your involvement in the Shafter FFA program.

10. Have you ever been suspended or gotten in trouble and had to talk to the dean? Please explain the circumstances.

11. Additional comments by the applicant describing your reason for wanting to attend the FFA State Leadership Conference, and why you should be chosen. Answer carefully as this will have an impact on the selection of recipient.

I have read and understand the rules for eligibility and the cost of this FFA Conference Trip. I understand failure to cancel by April 4th will result in the loss of my deposit and all money paid.

Applicant signature: _____

Parent or guardian signature: _____

Appendix C
Teacher Credentials

CA.GOV

COMMISSION ON TEACHER CREDENTIALING
Ensuring Educator Excellence

BLEDSOE, ELIZABETH > Document:

New Search Note: If you have questions about the information displayed below, please click here for a listing of Commission contacts.

Last Name: BLEDSOE
First Name: ELIZABETH
Middle Name: COLLEEN

Last Known County of Employment: Note: Please verify County of Employment is current
Adverse and Commission Actions Indicator: If flag displayed, click the Adverse and Commission Actions tab. If no flag, review Status field under the All Documents tab to view any adverse action taken.

Current Document | All Documents | Adverse and Commission Actions

1 - 2 of 2

Document Number	Document Title	Term	Status	Issue Date	Expiration Date	Original Issue Date	Grade	Special Grade
160060462	Specialist Instruction Credential (Agriculture)	Clear	Valid	6/1/2016	6/1/2021	12/18/2013		
160060461	Single Subject Teaching Credential	Clear	Valid	6/1/2016	6/1/2021	6/22/2009		

Authorization/Subjects

1 - 1 of 1

Authorization Code	Authorization Description	Subject Code	Subject Description	Major/ Minor	Added Authorization Date
R3A1	This credential authorizes the holder to teach agriculture in grades twelve and below, including preschool, and in classes organized primarily for adults. It also authorizes the holder to develop and coordinate curriculum, develop programs, and deliver staff development for agriculture education programs coordinated by school districts or county offices of education.	AGRI	Agriculture	MAJ	

Renewal Requirements

Please disregard any # signs you may see below and refer to the "Additional Description" column to the right for specific renewal requirements.

1 - 2 of 2

Renewal Code	Renewal Description	Additional Description
R20	To renew this credential, the holder needs to submit only an application and fee to the Commission no earlier than 12 months before the expiration date. The renewal period is five years.	TC Code Not Required
R15P	The term of this credential is limited by the term of the prerequisite credential. To renew this credential, the holder must also renew the prerequisite credential.	

Employment Restrictions

CA.GOV

COMMISSION ON TEACHER CREDENTIALING
Ensuring Educator Excellence

New Search Note: If you have questions about the information displayed below, please click here for a listing of Commission contacts.

Last Name: RENICK
First Name: ELLEN
Middle Name: CHRISTINE

Last Known County of Employment: KERN COUNTY OFFICE OF EDUCATION

Adverse and Commission Actions Indicator:

Note: Please verify County of Employment is current
If flag displayed, click the Adverse and Commission Actions tab. If no flag, review Status field under the All Documents tab to view any adverse action taken.

Current Document | All Documents | Adverse and Commission Actions

1 - 4 of 4

Document Number	Document Title	Term	Status	Issue Date	Expiration Date	Original Issue Date	Grade	Special Grade
150061544	Single Subject Teaching Credential	Preliminary	Valid	4/3/2015	5/1/2020			
160023284	Single Subject Teaching Credential	Preliminary	Valid	12/9/2015	5/1/2020	12/9/2015		
130225586	Certificate of Clearance		Valid	12/12/2013	1/1/2019	12/12/2013		
170099687	General Education Limited Assignment Single Subject Teaching Permit		Valid	2/1/2017	2/1/2018			

Authorization/Subjects

1 - 2 of 2

Authorization Code	Authorization Description	Subject Code	Subject Description	Major/ Minor	Added Authorization Date
R1S	This document authorizes the holder to teach the subject area(s) listed in grades twelve and below, including preschool, and in classes organized primarily for adults.	SBSX	Science: Biological Sciences (Examination)	MAJ	
ELAS	The following instructional services may be provided to English learners within the content area(s) listed on this document: (1) English language development defined as instruction designed specifically for limited-English-proficient students to develop their listening, speaking, reading, and writing skills in English; and (2) specially designed content instruction delivered in English defined as instruction in a subject area, delivered in English, that is specially designed to meet the needs of limited-English-proficient students. This English learner authorization also covers classes taught on the basis of other valid, non-emergency credentials or permits held within the settings or content/specialty area(s) listed	NONE		MAJ	

CA.GOV

COMMISSION ON TEACHER CREDENTIALING

Ensuring Educator Excellence

New Search Note: If you have questions about the information displayed below, please click here for a listing of Commission contacts.

Last Name: MORALES
First Name: MARK
Middle Name: ANDREW

Last Known County of Employment:
Adverse and Commission Actions Indicator:

Note: Please verify County of Employment is current
If flag displayed, click the Adverse and Commission Actions tab. If no flag, review Status field under the All Documents tab to view any adverse action taken.

Current Document | All Documents | Adverse and Commission Actions

1 - 2 of 2

Document Number	Document Title	Term	Status	Issue Date	Expiration Date	Original Issue Date	Grade	Special Grade
130080127	Specialist Instruction Credential (Agriculture)	Clear	Valid	6/1/2013	6/1/2018	5/21/1993		
130080126	Single Subject Teaching Credential	Clear	Valid	6/1/2013	6/1/2018	12/18/1992		

Authorization/Subjects

1 - 1 of 1

Authorization Code	Authorization Description	Subject Code	Subject Description	Major/ Minor	Added Authorization Date
R3A1	This credential authorizes the holder to teach agriculture in grades twelve and below, including preschool, and in classes organized primarily for adults. It also authorizes the holder to develop and coordinate curriculum, develop programs, and deliver staff development for agriculture education programs coordinated by school districts or county offices of education.	AGRI	Agriculture	MAJ	

Renewal Requirements

Please disregard any # signs you may see below and refer to the "Additional Description" column to the right for specific renewal requirements.

1 - 1 of 1

Renewal Code	Renewal Description	Additional Description
R15	There are no additional requirements for the renewal of this credential; however, the term of this credential is limited by the term of the prerequisite credential. To renew this credential, the holder must also renew the prerequisite credential.	

Employment Restrictions

No Records

COMMISSION ON TEACHER CREDENTIALING
Ensuring Educator Excellence

NICHOLS, TEDDI > Document:

New Search Note: If you have questions about the information displayed below, please click here for a listing of Commission contacts.

Last Name: NICHOLS
First Name: TEDDI
Middle Name: GENEE'

Last Known County of Employment: KERN COUNTY OFFICE OF EDUCATION

Note: Please verify County of Employment is current
If flag displayed, click the Adverse and Commission Actions tab. If no flag, review Status field under the All Documents to view any adverse action taken.

Adverse and Commission Actions Indicator:

Current Document | All Documents | Adverse and Commission Actions

1 - 3 of 3

	Document Number	Document Title	Term	Status	Issue Date	Expiration Date	Original Issue Date	Grade	Specia Grade
>	150034235	Single Subject Teaching Credential	Preliminary	Valid	2/2/2015	3/1/2020			
>	150034769	Specialist Instruction Credential (Agriculture)	Clear	Valid	2/2/2015	3/1/2020			
>	140009792	Certificate of Clearance		Valid	1/15/2014	2/1/2019	1/15/2014		

Authorization/Subjects

1 - 2 of 2

Authorization Code	Authorization Description	Subject Code	Subject Description	Major/ Minor	Added Authorizatio Date
R1S	This document authorizes the holder to teach the subject area(s) listed in grades twelve and below, including preschool, and in classes organized primarily for adults.	AGRI	Agriculture	MAJ	
ELAS	The following instructional services may be provided to English learners within the content area(s) listed on this document: (1) English language development defined as instruction designed specifically for limited-English-proficient students to develop their listening, speaking, reading, and writing skills in English; and (2) specially designed content instruction delivered in English defined as instruction in a subject area, delivered in English, that is specially designed to meet the needs of limited-English-proficient students. This English learner authorization also covers classes taught on the basis of other valid, non-	NONE		MAJ	

Appendix D
Departement Budget

FFA Budget 2015-2016

Expenses

	Estimated	Actual
	$26,412.90	$0.00

	Estimated	Actual
Officer Retreat	$1,000.00	
Totals	$1,000.00	$0.00

	Estimated	Actual
Officer Retreat	$25.00	
Totals	$25.00	$0.00

	Estimated	Actual
COLC @10/student $12/adult	$126.00	
0		
Totals	$126.00	$0.00

	Estimated	Actual
Club Meeting	$50.00	
Kern County Fair @ 48 adult 12 pass	$100.00	
Harvest Hall	$25.00	
Tshirts 105 pieces	$1,050.00	
Totals	$1,225.00	$0.00

	Estimated	Actual
Club Meeting	$50.00	
Greenhand Conference @35/student	$650.00	
R-2 Leadership Packets @8.50/student +1	$2,862.50	
Fall Harvest	$150.00	
Totals	$3,712.50	$0.00

	Estimated	Actual
Club Meeting	$50.00	
Opening and Closing @10/student $12/adult	$636.00	
Bus	$250.00	
Totals	$686.00	$0.00

	Estimated	Actual
Club Meeting-cookie	$50.00	
Poinsettias	$1,311.50	
Skatenight @8.00/student	$144.00	
SV Speaking Contests	$156.00	
Banking Contest-5 students	$60.00	
Totals	$1,721.50	$0.00

	Estimated	Actual
Club Meeting	$50.00	
BIG/ CoOp/Novice Records $10/Student $12/adult	$154.00	
Totals	$204.00	$0.00

	Estimated	Actual
FFA Week	$100.00	
MFE/ALA @100	$800.00	
Tulare Farm Show Tickets	$275.00	
Tulare Farm Show Bus	$550.00	
FFA Regional Meeting	$120.00	
FFA Bash@5.00 per person	$130.00	
Totals	$1,975.00	$0.00

	Estimated	Actual
Club Meeting	$50.00	
Chico State Field Day	$125.00	
Chico State Hotel @142.15 night	$284.30	
SV Parli Pro$10/Student $12/adult	$132.00	
Sectional Activity Night	$250.00	
Merced Field Day	$125.00	
Highland Vegetable Contest	$25.00	
Totals	$991.30	$0.00

	Estimated	Actual
Club Meeting	$50.00	
Regional Parli Pro	$100.00	
Cal Poly Pomona Field Day	$125.00	
Pomona Hotel@142.15/night	$284.30	
KI Field Day	$42.00	
State Conference Reg @110/person	$1,610.00	
State Conference Hotels @154/night	$3,803.58	
Fresno State Field Day	$128.00	
Madera Floral Contest	100	
State degree Banquet	$1,010.00	
Totals	$7,252.88	$0.00

	Estimated	Actual
SV Officer Elections $10/Student $12/adult	$144.00	
Club Meeting	$50.00	
Cal Poly Field Day- Registration Veg	$25.00	
Cal Poly Registration Floral	$100.00	
Cal Poly Field Day Hotels	$846.72	
Banquet-Food	$800.00	
Banquet-Awards	$800.00	
Banquet-Decorations	$200.00	
Floral Disneyland Trip Tickets	$3,028	
Floral Disneyland Trip Bus	$1,500.00	
Totals	$7,493.72	$0.00

California Department of Education

AGRICULTURAL CAREER TECHNICAL EDUCATION INCENTIVE GRANT

2016–17 APPLICATION FOR FUNDING

(Due Date: To be received in Regional Supervisor's Office by June 30, 2016)

DATES OF PROJECT DURATION - JULY 1, 2016, TO JUNE 30, 2017

Shafter HS	Kern High School District
(School Site)	(District)

Certification: I hereby certify that all applicable state and federal rules and regulations will be observed; that to the best of my knowledge, the information contained in this application is correct and complete; and that the attached assurances are accepted as the basic conditions of the operations in this project/program for local participation and assistance.

	Agriculture Coordinator
Signature of Authorized Agent	Title
Signature of Agriculture Teacher Responsible for the Program	Signature of Principal

Contact Phone Number: (661)808-3447

Date of Approval of Local Agency Board: 5/31/2016

Funds Requested - Part I	$5,000.00	
Part II	$2,592.00	
Part III	$12,000.00	
Part IV	$0.00	
Total		$19,592.00

Number of Different Agriculture Teachers at Site: 4

PART I - QUALITY CRITERIA 1-9 (REQUIRED) ALLOCATION

Quality Criteria	Will Meet Criteria	Variance Requested
1. Curriculum and Instruction	X	
2. Leadership and Citizenship Development	X	
3. Practical Application of Occupational Skills	X	
4. Qualified and Competent Personnel	X	
5. Facilities, Equipment, and Materials	X	
6. Community, Business, and Industry Involvement	X	
7. Career Guidance	X	
8. Program Promotion	X	
9. Program Accountability and Planning	X	

Formal Variance Request must be included if requesting a variance. A variance is a proposed plan for bringing the program into compliance with required quality criteria. Variances should result in compliance prior to the following year's application. All variances must be approved with the application. Non-compliance with the terms of the approved variance will result in a loss of funds.

PART I - CONTINUED

Departmental Allocation: Meeting the criteria in PART I makes the program eligible for the following amounts based on the number of teachers in the program.

Total Number of Teachers	Amount Eligible	Amount Requested
One Teacher or Less	$4,000	
Two Teachers	$4,500	
Three Teachers or More	$5,000	$5,000.00

PART II - PROGRAM ENROLLMENT ALLOCATION

Total Number of Students	2015–16 R2 Number	Amount Requested
List Number from R2 Report ($8/Member)	324	$2,592.00

PART III - QUALITY CRITERIA 10–11 (OPTIONAL) ALLOCATION

Schools which qualify for a Departmental Allocation may apply for additional amounts for each specific Quality Criteria (10 and 11) met.

* Amounts requested in Quality Criterion 10 will be the indicated amount for that criterion, multiplied by the full-time equivalent (FTE). To count a preparation period, the teacher must be teaching Career Technical Education courses in Agriculture for 50 percent or more of their teaching periods.
* Amounts requested in Quality Criterion 11A will be the indicated amount for each teacher who was compensated a minimum of $2,000 for year-round employment.
* Amounts requested in Quality Criterion 11B will be the indicated amount for each teacher who is provided a project supervision period. Project periods will be counted if the teacher has a preparation period as part of the regular teaching day.

Number of FTE Agriculture Teachers at Site: 4

List the Names of the Agriculture Teachers:

1. Mark Morales	4. Ellen Renick
2. Elizabeth Bledsoe	5.
3. Teddi Nichols	6.

	Number Meeting Criteria	Amount Requested
Criterion 10 - Student/Teacher Ratio	2	$4,000.00
Criterion 11A - Year-Round Employment	4	$8,000.00
Criterion 11B - Project Supervision Period	0	$0.00
TOTAL FUNDS REQUESTED PART IV		$12,000.00

PART IV - QUALITY CRITERION 12 (OPTIONAL) ALLOCATION

Quality Criterion 12 Form is attached and all criteria has been met. If the answer is yes, list $7,500 (funds requesting) in space to the right. $0.00

PART V - FINANCIAL SCHEDULE

Part A

			A	B		C
e	Acct. No.	Classification	Description of Item for Which Funds Will be Expended	Incentive Grant Funds		Matching Funds
1	4000	Books & Supplies		13,792.00		13,792.00
2			Subtotal for 4000	**$13,792.00**		**$13,792.00**
3	5000	Services and Other Operating Expenses such as: Services of Consultants, Staff Travel, and Conference; Rentals, Leases, and Repairs; Bus Transportation	1. Travel and Conf	5,000.00		5,000.00
4			2. Buses	800.00		800.00
5			3.			
6			4.			
			5.			
7			6.			
8			Subtotal for 5000	**$5,800.00**		**$5,800.00**
9	6000	Capital Outlay: Includes Sites and Improvements of Sites; Buildings and Improvement of Buildings; Equipment	1.			
10			2.			
11			3.			
			4.			
12			5.			
13			Subtotal for 6000	**$0.00**		**$0.00**
14			Total for 4000–6000 Lines 2, 8, 13	**$19,592.00**		**$19,592.00**

TOTAL 2016–17 Incentive Grant Allocation: $19,592.00

Part B - Complete this portion if a waiver of the matching requirement is requested:

			A	B		C
Line	Acct No.	Classification	Description of Item for Which Funds Were Expended	Incentive Grant Funds		Amount of Salary and Benefits
15	1000	Salaries	Teachers' Summer Service Salaries			
16	1000	Salaries	Teachers' Salaries for Project Supervision Period			
17	3000	Benefits	Benefits for the Above Items (1000)			
18			TOTAL			**$0.00**

TOTAL Amount of Waiver Requested: none

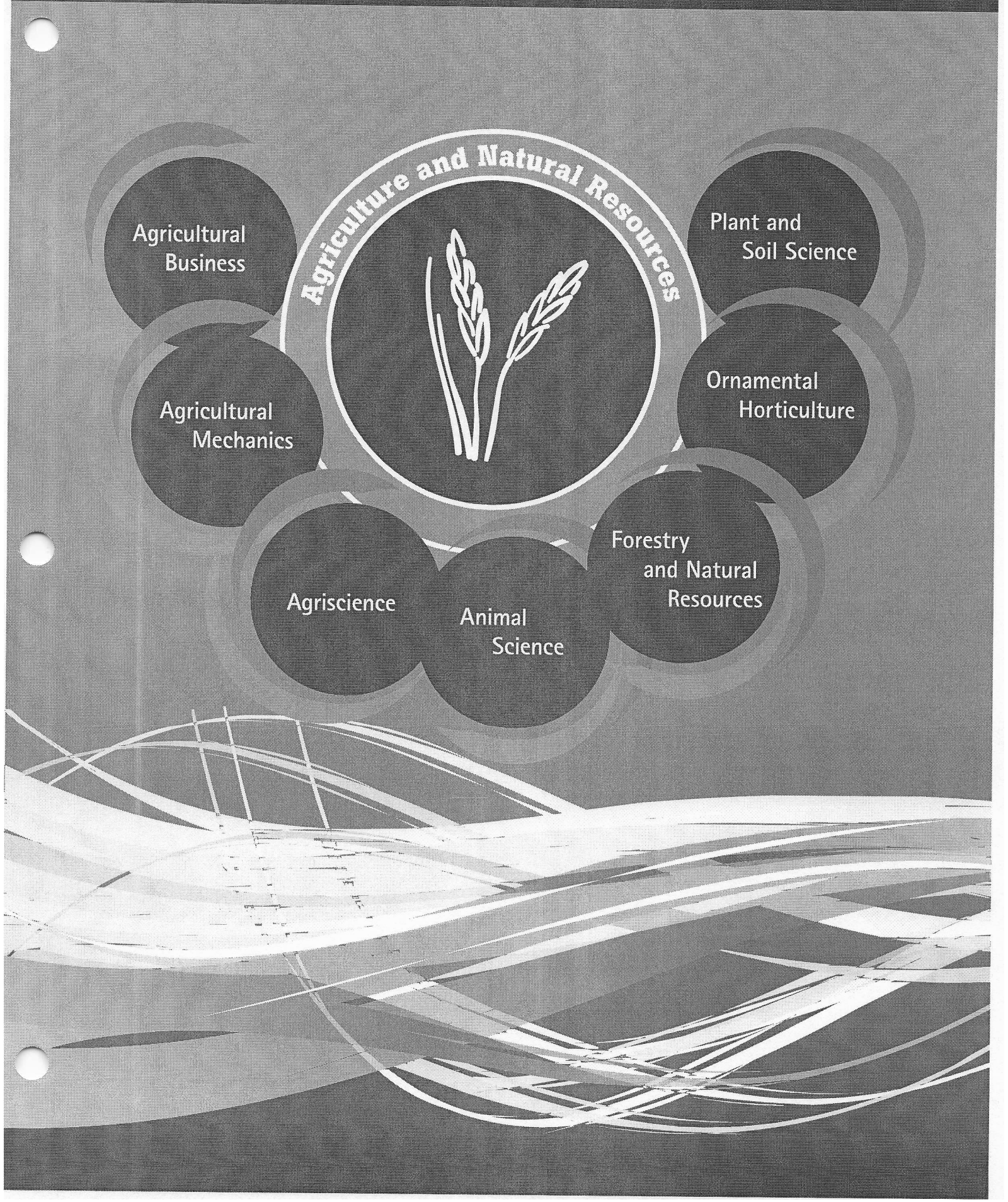
Advisory Committee

Currently at this time we are redoing our Advisory Committee. We have changed the department drastically since I started at Shafter High School. The advisory committee that was in place no longer completely represents our program and the classes offered. We are currently searching for members that will benefit our program and students. This also means that we are looking at our constitution and bylaws for this group. Our plan is to have a fully functioning advisory committee by the 2017-2018 school year.

Proficiency Standards

We use the California Career Technical Education Model Curriculum Standards as the proficiency standards for the classes the students have taken. Please see the attached standards that we use.

California Career Technical Education Model Curriculum Standards



1.0 Academics

Analyze and apply appropriate academic standards required for successful industry sector pathway completion leading to postsecondary education and employment. Refer to the Agriculture and Natural Resources academic alignment matrix for identification of standards.

2.0 Communications

Acquire and accurately use Agriculture and Natural Resources sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats. (Direct alignment with LS 9-10, 11-12.6)

2.1 Recognize the elements of communication using a sender–receiver model.

2.2 Identify barriers to accurate and appropriate communication.

2.3 Interpret verbal and nonverbal communications and respond appropriately.

2.4 Demonstrate elements of written and electronic communication, such as accurate spelling, grammar, and format.

2.5 Communicate information and ideas effectively to multiple audiences using a variety of media and formats.

2.6 Advocate and practice safe, legal, and responsible use of digital media information and communications technologies.

3.0 Career Planning and Management

Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans. (Direct alignment with SLS 11-12.2)

3.1 Identify personal interests, aptitudes, information, and skills necessary for informed career decision making.

3.2 Evaluate personal character traits, such as trust, respect, and responsibility, and understand the impact they can have on career success.

3.3 Explore how information and communication technologies are used in career planning and decision making.

3.4 Research the scope of career opportunities available and the requirements for education, training, certification, and licensure.

3.5 Integrate changing employment trends, societal needs, and economic conditions into career planning.

3.6 Recognize the role and function of professional organizations, industry associations, and organized labor in a productive society.

3.7 Recognize the importance of small business in the California and global economies.

3.8 Understand how digital media are used by potential employers and postsecondary agencies to evaluate candidates.

3.9 Develop a career plan that reflects career interests, pathways, and postsecondary options.

4.0 Technology

Use existing and emerging technology to investigate, research, and produce products and services, including new information, as required in the Agriculture and Natural Resources sector workplace environment. (Direct alignment with WS 11-12.6)

4.1 Use electronic reference materials to gather information and produce products and services.

4.2 Employ Web-based communications responsibly and effectively to explore complex systems and issues.

4.3 Use information and communication technologies to synthesize, summarize, compare, and contrast information from multiple sources.

4.4 Discern the quality and value of information collected using digital technologies, and recognize bias and intent of the associated sources.

4.5 Research past, present, and projected technological advances as they impact a particular pathway.

4.6 Assess the value of various information and communication technologies to interact with constituent populations as part of a search of the current literature or in relation to the information task.

4.7 Demonstrate the use of appropriate tools and technology used in the Agriculture and Natural Resources sector.

5.0 Problem Solving and Critical Thinking

Conduct short as well as more sustained research to create alternative solutions to answer a question or solve a problem unique to the Agriculture and Natural Resources sector, using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques. (Direct alignment with WS 11-12.7)

5.1 Identify and ask significant questions that clarify various points of view to solve problems.

5.2 Solve predictable and unpredictable work-related problems using various types of reasoning (inductive, deductive) as appropriate.

5.3 Use systems thinking to analyze how various components interact with each other to produce outcomes in a complex work environment.

5.4 Interpret information and draw conclusions, based on the best analysis, to make informed decisions.

6.0 Health and Safety

Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the Agriculture and Natural Resources sector workplace environment. (Direct alignment with RSTS 9-10, 11-12.4)

6.1 Locate, and adhere to, Material Safety Data Sheet (MSDS) instructions.

6.2 Interpret policies, procedures, and regulations for the workplace environment, including employer and employee responsibilities.

6.3 Use health and safety practices for storing, cleaning, and maintaining tools, equipment, and supplies.

6.4 Practice personal safety when lifting, bending, or moving equipment and supplies.

6.5 Demonstrate how to prevent and respond to work-related accidents or injuries; this includes demonstrating an understanding of ergonomics.

6.6 Maintain a safe and healthful working environment.

6.7 Be informed of laws/acts pertaining to the Occupational Safety and Health Administration (OSHA).

7.0 Responsibility and Flexibility

Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the Agriculture and Natural Resources sector workplace environment and community settings. (Direct alignment with SLS 9-10, 11-12.1)

7.1 Recognize how financial management impacts the economy, workforce, and community.

7.2 Explain the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.

7.3 Understand the need to adapt to changing and varied roles and responsibilities.

7.4 Practice time management and efficiency to fulfill responsibilities.

7.5 Apply high-quality techniques to product or presentation design and development.

7.6 Demonstrate knowledge and practice of responsible financial management.

7.7 Demonstrate the qualities and behaviors that constitute a positive and professional work demeanor, including appropriate attire for the profession.

7.8 Explore issues of global significance and document the impact on the Agriculture and Natural Resources sector.

8.0 Ethics and Legal Responsibilities

Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms. (Direct alignment with SLS 11-12.1d)

8.1 Access, analyze, and implement quality assurance standards of practice.

8.2 Identify local, district, state, and federal regulatory agencies, entities, laws, and regulations related to the Agriculture and Natural Resources industry sector.

8.3 Demonstrate ethical and legal practices consistent with Agriculture and Natural Resources sector workplace standards.

8.4 Explain the importance of personal integrity, confidentiality, and ethical behavior in the workplace.

8.5 Analyze organizational culture and practices within the workplace environment.

8.6 Adhere to copyright and intellectual property laws and regulations, and use and appropriately cite proprietary information.

8.7 Conform to rules and regulations regarding sharing of confidential information, as determined by Agriculture and Natural Resources sector laws and practices.

9.0 Leadership and Teamwork

Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution as practiced in the Future Farmers of America (FFA) career technical student organization. (Direct alignment with SLS 11-12.1b)

9.1 Define leadership and identify the responsibilities, competencies, and behaviors of successful leaders.

9.2 Identify the characteristics of successful teams, including leadership, cooperation, collaboration, and effective decision-making skills, as applied in groups, teams, and career technical student organization activities.

9.3 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace setting.

9.4 Explain how professional associations and organizations and associated leadership development and competitive career development activities enhance academic preparation, promote career choices, and contribute to employment opportunities.

9.5 Understand that the modern world is an international community and requires an expanded global view.

9.6 Respect individual and cultural differences and recognize the importance of diversity in the workplace.

9.7 Participate in interactive teamwork to solve real Agriculture and Natural Resources sector issues and problems.

9.8 Define the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.

9.9 Identify the ways in which pre-professional associations, such as the Future Farmers of America (FFA), and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.

9.10 Understand how to organize and structure work, individually and in teams, for effective performance and the attainment of goals.

9.11 Explain multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.

9.12 Demonstrate how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.

9.13 Participate in group or team activities, including those offered by the student organization, that develop skills in leadership, cooperation, collaboration, and effective decision making.

10.0 Technical Knowledge and Skills

Apply essential technical knowledge and skills common to all pathways in the Agriculture and Natural Resources sector, following procedures when carrying out experiments or performing technical tasks. (Direct alignment with WS 11-12.6)

10.1 Interpret and explain terminology and practices specific to the Agriculture and Natural Resources sector.

10.2 Comply with the rules, regulations, and expectations of all aspects of the Agriculture and Natural Resources sector.

10.3 Construct projects and products specific to the Agriculture and Natural Resources sector requirements and expectations.

10.4 Collaborate with industry experts for specific technical knowledge and skills.

10.5 Interpret and explain the aims, purposes, history, and structure of the FFA student organization and know the opportunities it makes available.

10.6 Manage, and actively engage in, a career-related, supervised agricultural experience.

10.7 Understand the importance of maintaining and completing the California Agricultural Record Book.

10.8 Maintain and troubleshoot equipment used in the agricultural industry.

11.0 Demonstration and Application

Demonstrate and apply the knowledge and skills contained in the Agriculture and Natural Resources anchor standards, pathway standards, and performance indicators in classroom, laboratory, and workplace settings, and through the FFA career technical student organization.

11.1 Utilize work-based/workplace learning experiences to demonstrate and expand upon knowledge and skills gained during classroom instruction and laboratory practices specific to the Agriculture and Natural Resources sector program of study.

11.2 Demonstrate proficiency in a career technical pathway that leads to certification, licensure, and/or continued learning at the postsecondary level.

11.3 Demonstrate entrepreneurship skills and knowledge of self-employment options and innovative ventures.

11.4 Employ entrepreneurial practices and behaviors appropriate to Agriculture and Natural Resources sector opportunities.

11.5 Create a portfolio, or similar collection of work, that offers evidence through assessment and evaluation of skills and knowledge competency as contained in the anchor standards, pathway standards, and performance indicators.

B. Agricultural Mechanics Pathway

The Agricultural Mechanics pathway prepares students for careers related to the construction, operation, and maintenance of equipment used by the agriculture industry. Basic agricultural mechanics skills and safety, standards B1.0 through B8.0, cover woodworking, electrical systems, plumbing, cold metal work, concrete, and welding technology. Advanced topics, standards B9.0 through B12.0, deal with metal fabrication, small engines, agriculture power and technology, and agriculture construction.

Sample occupations associated with this pathway:

- Agriculture Equipment Operator
- Farm Equipment Mechanic and Service Technician
- Agricultural Engineer
- Welder
- Equipment Fabricator

B1.0 Implement personal and group safety practices.

- B1.1 Practice the rules for personal and group safety while working in an agricultural mechanics environment.
- B1.2 Integrate accepted shop management procedures and a safe working environment.
- B1.3 Safely secure loads on a variety of vehicles.

B2.0 Apply the principles of basic woodworking.

- B2.1 Identify common wood products, lumber types, and sizes.
- B2.2 Measure and lay out lumber, calculating board feet and square feet.
- B2.3 Identify, select, and implement basic fastening systems.
- B2.4 Complete a woodworking project, including interpreting a plan, developing a bill of materials and cutting list, selecting materials, shaping, joining, and finishing.

B3.0 Demonstrate basic electricity principles and wiring practices commonly used in agriculture.

- B3.1 Explain the relationship between voltage, amperage, resistance, and power in single-phase alternating current (AC) circuits.
- B3.2 Use proper electrical test equipment for AC and direct current (DC) circuits.
- B3.3 Analyze and correct basic circuit problems (e.g., open circuits, short circuits, incorrect grounding).
- B3.4 Implement proper basic electrical circuit and wiring techniques using nonmetallic cable and conduit as defined by the National Electric Code (NEC).
- B3.5 Interpret basic agricultural electrical plans.
- B3.6 Complete an electrical project, including interpreting a plan, following NEC code, selecting materials and components, and completing a circuit.

B4.0 Select and apply plumbing system practices commonly used in agriculture.

- B4.1 Match appropriate basic plumbing fitting skills with a variety of materials, such as copper, polyvinyl chloride (PVC), steel, polyethylene, and acrylonitrile butadiene styrene (ABS).
- B4.2 Explain the environmental influences on plumbing and irrigation system choices (e.g., filter systems, water disposal, drip vs. flood).
- B4.3 Research and communicate how various plumbing and irrigation systems are used in agriculture.
- B4.4 Complete a plumbing project, including interpreting a plan, developing a bill of materials and cutting list, selecting materials, joining, and testing.

B5.0 Understand agricultural cold metal processes.

- B5.1 Identify common metals, sizes, and shapes.
- B5.2 Demonstrate basic tool-fitting skills.
- B5.3 Properly lay out materials for a given project.
- B5.4 Demonstrate basic cold metal processes (e.g., shearing, cutting, drilling, threading, bending).
- B5.5 Complete a cold metal project, including interpreting a plan, developing a bill of materials, selecting materials, shaping, fastening, and finishing.

B6.0 Understand concrete and masonry practices commonly used in agriculture.

- B6.1 Identify and explain the use of concrete and masonry tools and demonstrate proper handling of concrete materials.
- B6.2 Practice bed preparation, concrete forms layout, and construction.
- B6.3 Complete a concrete or masonry project, including calculating volume, developing a bill of materials, assembling, mixing, placing, and finishing.

B7.0 Understand oxy-fuel cutting and welding.

- B7.1 Explain the role of heat and oxidation in the cutting process.
- B7.2 Properly set up, adjust, shut down, and maintain an oxy-fuel system.
- B7.3 Flame-cut metal with an oxy-fuel cutting torch.
- B7.4 Fusion-weld mild steel with and without filler rod by using oxy-fuel equipment.
- B7.5 Repair metal objects using a variety of techniques, such as brazing or hard surfacing.

B8.0 Understand electric arc welding processes.

- B8.1 Select, properly adjust, safely employ, and maintain appropriate welding equipment (e.g., gas metal arc welding, shielded metal arc welding, gas tungsten arc welding).
- B8.2 Read welding symbols and plans, select electrodes, fit-up joints, and control heat and distortion.

B8.3 Apply gas metal arc welding, shielded metal arc welding, or flux core arc welding processes to fusion-weld mild steel with appropriate welding electrodes and related equipment.

B8.4 Weld a variety of joints in various positions.

B9.0 Assimilate metallurgy principles and fabrication techniques.

B9.1 Define metallurgy principles, including distortion, hardening, tempering, and annealing.

B9.2 Operate and maintain various arc welding and cutting systems safely and appropriately.

B9.3 Operate and maintain fabrication tools and equipment safely and appropriately.

B9.4 Design project plans by using mechanical drawing techniques.

B9.5 Finish a metal project by implementing proper sequencing.

B9.6 Manipulate and finish metal by using a variety of tools, machines, and techniques (e.g., lathe, mill, CNC plasma, shears, press break, grinders, and sanders).

B9.7 Construct a welding project using any electric welding process, appropriate products, joints, and positions, which will include interpreting a plan, determining proper assembly sequence, developing a bill of materials and cutting list, selecting and acquiring materials, and developing a clear and concise fabrication contract.

B10.0 Understand small and compact engines.

B10.1 Understand and explain engine theory, including the application of mathematical and/or physical science laws for both two- and four-stroke cycle engines.

B10.2 Differentiate among types of small engines and their applications.

B10.3 Identify small-engine parts and explain the various systems (e.g., fuel, ignition, compression, cooling, and lubrication systems).

B10.4 Troubleshoot and solve problems with small engines.

B10.5 Disassemble, inspect, adjust, and reassemble a small engine.

B10.6 Look up and order parts, apply repair and maintenance recommendations from a repair manual, and complete appropriate forms, including work orders.

B11.0 Understand the principles and applications of various engines and machinery used in agriculture.

B11.1 Identify common agricultural machinery and implements.

B11.2 Calibrate, operate, and maintain equipment safely and efficiently.

B11.3 Summarize the theory, operation, and troubleshooting of various types of engines found on agricultural machinery, including cooling, fuel, and lubrication systems.

B11.4 Explain the theory, operation, and troubleshooting of hydraulic systems.

B11.5 Explain the theory, operation, and troubleshooting of power train and power take-off systems.

B11.6 Understand the theory and operation of 12-volt DC electronic and electrical systems (e.g., circuit design, starting, charging, and safety circuits).

B12.0 Apply land measurement and construction techniques commonly used in agriculture.

- B12.1 Describe common surveying techniques used in agriculture (e.g., leveling, land measurement, building layout, GPS).
- B12.2 Draw and interpret architectural plans.
- B12.3 Install single- and three-phase wiring and control systems found in agricultural structures, pumps, and irrigation systems.
- B12.4 Install plumbing in agricultural structures (e.g., potable water, sewer, irrigation).
- B12.5 Form, place, and finish concrete or masonry (e.g., concrete block).
- B12.6 Construct agricultural structures by using wood framing and steel framing systems (e.g., barns, shops, greenhouses, animal structures).
- B12.7 Develop clear and concise agricultural construction contracts.

C. Agriscience Pathway

The Agriscience pathway helps students acquire a broad understanding of a variety of agricultural areas, develop an awareness of the many career opportunities in agriculture, participate in occupationally relevant experiences, and work cooperatively with a group to develop and expand leadership abilities. Students study California agriculture, agricultural business, agricultural technologies, natural resources, and animal, plant, and soil sciences.

Sample occupations associated with this pathway:

- Research Assistant/Associate
- Water Quality Specialist
- Plant Scientist
- Agriscience Teacher
- Entomologist

C1.0 Evaluate the role of agriculture in the California economy.

- C1.1 Understand the history of the agricultural industry in California.
- C1.2 Describe how California agriculture affects the quality of life.
- C1.3 Analyze the interrelationship of California agriculture and society at the local, state, national, and international levels.
- C1.4 Research the economic impact of leading California agricultural commodities.
- C1.5 Assess the economic impact of major natural resources in California.
- C1.6 Distinguish between the economic importance of major agricultural exports and imports.
- C1.7 Explore factors that affect food safety and producers' responsibilities to consumers.

C2.0 Examine the interrelationship between agriculture and the environment.

- C2.1 Identify important agricultural environmental impacts on soil, water, and air.
- C2.2 Explain current environmental challenges related to agriculture.
- C2.3 Summarize how natural resources are used in agriculture.
- C2.4 Compare and contrast practices for conserving renewable and nonrenewable resources.
- C2.5 Research how new energy sources are developed from agricultural products (e.g., gas-cogeneration and ethanol).

C3.0 Analyze the effects of technology on agriculture.

- C3.1 Describe how technology affects the logistics of moving an agricultural commodity from producer to consumer.
- C3.2 Understand how technology influences factors such as labor, efficiency, diversity, availability, mechanization, and communication.

C3.3 Communicate public concern for technological advancements in agriculture, such as genetically modified organisms.

C3.4 Research the laws and regulations concerning biotechnology.

C3.5 Integrate the use of technology when collecting and analyzing data.

C4.0 Determine the importance of animals, the domestication of animals, and the role of animals in modern society.

C4.1 Understand the evolution and roles of domesticated animals in society.

C4.2 Differentiate between domestication and natural selection.

C4.3 Compile the modern-day uses of animals and animal by-products.

C4.4 Defend various points of view regarding the use of animals.

C4.5 Research unique and alternative uses of animals (e.g., therapeutic riding programs and companion animals).

C5.0 Compare the structure and function of plants, animals, bacteria, and viruses.

C5.1 Identify the function of cells.

C5.2 Analyze the anatomy and physiology of cells.

C5.3 Understand various cell actions, such as osmosis and cell division.

C5.4 Compare and contrast plant and animal cells, bacteria, and viruses.

C6.0 Explore animal anatomy and systems.

C6.1 State the names, and find the locations, of the external anatomy of animals.

C6.2 Explain the anatomy and major functions of vertebrate systems, including digestive, reproductive, circulatory, nervous, muscular, skeletal, respiratory, and endocrine systems.

C7.0 Comprehend basic animal genetics.

C7.1 Differentiate between genotype and phenotype and describe how dominant and recessive genes function.

C7.2 Compare genetic characteristics among cattle, sheep, swine, and horse breeds.

C7.3 Predict phenotype and genotype ratios by using a Punnett Square.

C7.4 Explain the fertilization process.

C7.5 Distinguish between the purpose and processes of mitosis and meiosis.

C8.0 Understand fundamental animal nutrition and feeding.

C8.1 Identify types of nutrients required by farm animals (e.g., proteins, minerals, vitamins, carbohydrates, fats/oils, water).

C8.2 Analyze suitable common feed ingredients, including forages, roughages, concentrates, and supplements for ruminant, monogastric, equine, and avian digestive systems.

C8.3 Understand basic animal feeding guidelines and evaluate sample feeding programs for various species, including space requirements and economic considerations.

C9.0 Evaluate basic animal health.

- C9.1 Assess the appearance and behavior of a normal, healthy animal.
- C9.2 Explain the ways in which housing, sanitation, and nutrition influence animal health and behavior.
- C9.3 Analyze the causes and controls of common animal diseases.
- C9.4 Summarize effective techniques for controlling parasites and explain why controlling parasites is important.
- C9.5 Research the legal requirements for the procurement, storage, methods of application, and withdrawal times of animal medications, and know proper equipment handling and disposal techniques.

C10.0 Explain soil science principles.

- C10.1 Recognize the major soil components and types.
- C10.2 Summarize how soil texture, structure, pH, and salinity affect plant growth.
- C10.3 Assess water delivery and irrigation system options.
- C10.4 Differentiate among the types, uses, and applications of amendments and fertilizers.

C11.0 Analyze plant growth and development.

- C11.1 Understand the anatomy and functions of plant systems and structures.
- C11.2 Identify plant growth requirements.
- C11.3 Discern between annual, biennial, and perennial life cycles.
- C11.4 Examine sexual and asexual reproduction in plants.
- C11.5 Understand photosynthesis and the roles of the sun, chlorophyll, sugar, oxygen, carbon dioxide, and water in the process.
- C11.6 Summarize the respiration process in the breakdown of food and organic matter.

C12.0 Understand fundamental pest management.

- C12.1 Classify agricultural pests (e.g., insects, weeds, disease, and vertebrates).
- C12.2 Compare chemical, mechanical, cultural, and biological methods of plant pest control.
- C12.3 Analyze the major principles, advantages, and disadvantages of integrated pest management.

C13.0 Design agricultural experiments using the scientific method.

- C13.1 State the steps of the scientific method.
- C13.2 Analyze an agricultural problem and devise a solution based on the scientific method.

D. Animal Science Pathway

In the Animal Science pathway, students study large, small, and specialty animals. Students explore the necessary elements, such as diet, genetics, habitat, and behavior, to create humane, ecologically, and economically sustainable animal production systems. The pathway includes the study of animal anatomy and physiology, nutrition, reproduction, genetics, health and welfare, animal production, technology, and the management and processing of animal products and by-products.

Sample occupations associated with this pathway:

- Veterinarian Technician
- Animal Caretaker/Kennel Operator
- Animal Breeder
- Ranch Manager
- Feed Nutritionist

D1.0 Evaluate the necessary elements for proper animal housing and animal-handling equipment.

- D1.1 Design an animal facility focusing on appropriate space and location requirements for habitat, housing, feed, and water.
- D1.2 Select habitat and housing conditions and materials, such as indoor and outdoor housing, fencing materials, air flow/ventilation, and shelters, to meet the needs of various animal species.
- D1.3 Interpret animal behaviors and execute protocols for safe handling of animals.
- D1.4 Defend the purpose and the safe and humane use of animal husbandry tools, such as hoof trimmers, electric shears, elastrators, dehorning tools, and scales.

D2.0 Apply principles of animal nutrition to ensure the proper growth, development, reproduction, and economic production of animals.

- D2.1 Assess the flow of nutrients from the soil, through the animal, and back to the soil.
- D2.2 Explore the principles for providing proper, balanced rations for a variety of production stages in ruminants and monogastrics.
- D2.3 Compare the digestive processes of the ruminant, monogastric, avian, and equine digestive systems.
- D2.4 Distinguish how animal nutrition is affected by the digestive, endocrine, and circulatory systems.

D3.0 Apply principles of comparative anatomy and physiology to uses within various animal systems.

- D3.1 Compare and contrast animal cells, tissues, organs, and body systems.
- D3.2 Develop efficient procedures to produce consistently high-quality animals that are well suited for their intended purposes.
- D3.3 Relate the importance of animal organs to the health, growth, and reproduction of animals.

D4.0 Demonstrate understanding of animal reproduction, including the function of reproductive organs.

- D4.1 Illustrate animal conception, including estrus cycles, ovulation, and insemination.
- D4.2 Research the gestation process and basic fetal development.
- D4.3 Explain the parturition process, including the identification of potential problems and their solutions.
- D4.4 Select animal breeding methods based on reproductive and economic efficiency.
- D4.5 Select a breeding system based on the principles of genetics.

D5.0 Discuss animal inheritance and selection principles, including the structure and role of deoxyribonucleic acid (DNA).

- D5.1 Evaluate a group of animals for desired qualities, and discern among them for breeding selection.
- D5.2 Select animals, based on quantitative breeding values, for specific characteristics.
- D5.3 Research and discuss current technology used to measure desirable traits.
- D5.4 Predict phenotypic and genotypic results of a dominant and recessive gene pair.
- D5.5 Research the role of mutations, both naturally occurring and artificially induced, and hybrids in animal genetics.

D6.0 Prescribe and implement a prevention treatment program for animal diseases, parasites, and other disorders.

- D6.1 Evaluate the signs of normal health in contrast to illness and disease.
- D6.2 Analyze the importance of animal behavior in diagnosing animal sickness and disease.
- D6.3 Research common pathogens, vectors, and hosts that cause disease in animals.
- D6.4 Evaluate preventative measures for controlling and limiting the spread of diseases, parasites, and disorders among animals.
- D6.5 Discuss procedures used at the local, state, and national levels to ensure biosecurity of the animal industry.
- D6.6 Explain the health risk of zoonotic diseases to humans, their historical influence, and future implications.
- D6.7 Discuss the impacts on local, national, and global economies, as well as on consumers and producers, when animal diseases are not appropriately contained and eradicated.

D7.0 Explore common pasture and rangeland management practices and their impact on a balanced ecosystem.

- D7.1 Evaluate a rangeland and identify methods of rangeland improvement used in an effective animal production program.
- D7.2 Summarize how rangeland management practices affect pasture production, erosion control, and the general balance of the ecosystem.

D7.3 Develop a management plan for rangelands, including how to calculate carrying capacity, for a variety of animal species and locations.

D7.4 Evaluate a plan to balance rangeland use for animal grazing and for wildlife habitat.

D8.0 Explain challenges associated with animal waste management.

D8.1 Assess treatment and disposal management systems for animal waste.

D8.2 Compare various methods for using animal waste and the environmental impacts associated with each method.

D8.3 Research the health and safety regulations that are an integral part of properly managed animal waste systems.

D9.0 Assess animal welfare concerns and management practices that support animal welfare.

D9.1 Evaluate the early warning signs of animal distress and how to rectify the problem.

D9.2 Discuss consumer concerns with animal production practices relative to human health.

D9.3 Summarize federal and state animal welfare laws and regulations, such as those dealing with abandoned and neglected animals, animal fighting, euthanasia, and medical research.

D9.4 Research the regulations for humane transportation and harvesting of animals, such as those delineated by the U.S. Department of Agriculture (USDA) Food Safety and Inspection Service and the Humane Methods of Slaughter Act.

D10.0 Demonstrate understanding of the production of large animals (e.g., cattle, horses, swine, sheep, goats) and small animals (e.g., poultry, cavy, rabbits).

D10.1 Formulate and implement optimum requirements for diet, genetics, habitat, and behavior in the production of large and small animals.

D10.2 Develop, maintain, and use growth and management records for large or small animals to make data-driven management decisions.

D11.0 Demonstrate understanding of the production of specialty animals (e.g., fish, marine animals, llamas, and tall, flightless birds).

D11.1 Assess specialty animals' role in agriculture (e.g., fish farms, pack animals, working dogs).

D11.2 Explore the unique nutrition, health, and habitat requirements for specialty animals.

D11.3 Synthesize and implement optimum requirements for diet, genetics, habitat, and behavior in the production of specialty animals.

D11.4 Develop, maintain, and utilize growth and management records for specialty animals to make data-driven management decisions.

D12.0 Understand how animal products and by-products are processed and marketed.

D12.1 Research animal harvest, carcass inspection and grading, and meat processing safety regulations and practices and the removal and disposal of nonedible by-products, such as those outlined in Hazard Analysis and Critical Control Point, Sanitation Standard Operating Procedures, and good manufacturing practices documents.

D12.2 Compare the relative importance of the major meat, dairy, and egg classifications, including the per-capita consumption and nutritive value of those classifications.

D12.3 Discuss how meat-based, dairy, and egg retail products are produced.

D12.4 Describe how nonmeat products, such as wool, pelts, hides, and by-products, are harvested and processed.

D12.5 Evaluate how meat products and nonmeat products are marketed.

D12.6 Compare the value of animal by-products to nonagricultural industries.

D12.7 Apply point-of-origin safety and sanitation procedures in the production, harvest, handling, processing, and storing of meat products.

F. Ornamental Horticulture Pathway

The Ornamental Horticulture pathway prepares students for careers in the nursery, landscaping, and floral industries. Topics include plant identification, plant physiology, soil science, plant reproduction, nursery production, and floriculture, as well as landscaping design, installation, and maintenance.

Sample occupations associated with this pathway:

- Florist/Floral Designer
- Landscape Design/Architect
- Hydroponics Grower
- Botanical Specialist
- Nursery/Greenhouse Manager

F1.0 Compare and contrast the hierarchical classification of plants.

- F1.1 Practice how to classify and identify plants by order, family, genus, and species.
- F1.2 Demonstrate how to identify plants by using a dichotomous key.
- F1.3 Illustrate how common plant parts are used to classify the plants.
- F1.4 Distinguish how to classify and identify plants by using botanical growth habits, landscape uses, and cultural requirements.
- F1.5 Identify and select plants for local landscape applications.

F2.0 Summarize plant physiology and growth principles.

- F2.1 Understand plant systems, nutrient transportation, structure, and energy storage.
- F2.2 Diagram the seed's essential parts and explain the functions of each.
- F2.3 Explain how primary, secondary, and trace elements are used in plant growth.
- F2.4 Experiment with the factors that influence plant growth, including water, nutrients, light, soil, air, and climate.
- F2.5 Differentiate the tissues seen in a cross section of woody and herbaceous plants.
- F2.6 Explore the factors that affect plant growth.

F3.0 Demonstrate plant propagation techniques.

- F3.1 Explain the different forms of sexual and asexual plant reproduction.
- F3.2 Demonstrate the various techniques for successful plant propagation (e.g., budding, grafting, cuttings, seeds).
- F3.3 Utilize and monitor plant reproduction for the development of a saleable product.

F4.0 Develop and implement a plan for basic integrated pest management.

- F4.1 Read and interpret pesticide labels and understand safe pesticide management practices.

F4.2 Research how pesticide regulations and government agencies affect agriculture.

F4.3 Identify common horticultural pests and diseases and methods of controlling them.

F4.4 Design an integrated approach to solving plant problems.

F5.0 Summarize water and soil (media) management practices.

F5.1 Explain how basic soil science and water principles affect plant growth.

F5.2 Illustrate basic irrigation design and installation methods.

F5.3 Prepare and amend soils, implement soil conservation methods, and compare results.

F5.4 Research major issues related to water sources and water quality.

F5.5 Explain the components of soilless media and test the use of those media in various types of containers.

F6.0 Apply ornamental plant nutrition practices.

F6.1 Analyze how primary and secondary nutrients and trace elements affect ornamental plants.

F6.2 Use basic nutrient testing procedures on soil and plant tissue.

F6.3 Analyze organic and inorganic fertilizers to understand their appropriate uses.

F6.4 Read and interpret labels to properly apply fertilizers.

F7.0 Develop a plan for the selection, installation, and maintenance of turf.

F7.1 Explain the selection and management of landscape and sports field turf.

F7.2 Demonstrate how to select, install, and maintain a designated turf grass area.

F7.3 Distinguish how the use of turf benefits the environment.

F8.0 Employ nursery production principles.

F8.1 Demonstrate the proper use of production facilities and common nursery equipment.

F8.2 Use common nursery production practices.

F8.3 Demonstrate how to propagate and maintain a horticultural crop to the point of sale.

F8.4 Design a marketing and merchandising strategy to use in nursery production.

F9.0 Demonstrate the proper use of containers and horticultural tools, equipment, and facilities.

F9.1 Use different types of containers and demonstrate how to maintain growing containers in controlled environments.

F9.2 Operate and maintain selected hand and power equipment safely and appropriately.

F9.3 Select proper tools for specific horticultural jobs.

F9.4 Install landscape components and electrical, land, and water features.

F10.0 Understand basic landscape planning, design, construction, and maintenance.

- F10.1 Utilize terms associated with landscape and design in appropriate context.
- F10.2 Produce a residential design, including how to render design to scale using design technology and principles.
- F10.3 Use proper landscape planting and maintenance practices.
- F10.4 Prune ornamental shrubs, trees, and fruit trees.
- F10.5 Produce clear and concise landscape business contracts.

F11.0 Understand basic floral design principles.

- F11.1 Demonstrate the use of plant materials and tools.
- F11.2 Apply basic design principles to products and designs.
- F11.3 Handle, prepare, and arrange cut flowers appropriately.
- F11.4 Develop a marketing and merchandising strategy to use in the floral industry.

COMMISSION ON TEACHER CREDENTIALING
Ensuring Educator Excellence

Last Name: NICHOLS
First Name: TEDDI
Middle Name: GENEE'

Last Known County of Employment: KERN COUNTY OFFICE OF EDUCATION

Note: Please verify County of Employment is current
If flag displayed, click the Adverse and Commission Actions tab. If no flag, review Status field under the All Documents tab to view any adverse action taken.

Adverse and Commission Actions Indicator:

Current Document | All Documents | Adverse and Commission Actions |

1 - 3 of 3

	Document Number	Document Title	Term	Status	Issue Date	Expiration Date	Original Issue Date	Grade	Special Grade
>	150034235	Single Subject Teaching Credential	Preliminary	Valid	2/2/2015	3/1/2020			
>	150034769	Specialist Instruction Credential (Agriculture)	Clear	Valid	2/2/2015	3/1/2020			
>	140009792	Certificate of Clearance		Valid	1/15/2014	2/1/2019	1/15/2014		

Authorization/Subjects

1 - 2 of 2

Authorization Code	Authorization Description	Subject Code	Subject Description	Major/ Minor	Added Authorization Date
R1S	This document authorizes the holder to teach the subject area(s) listed in grades twelve and below, including preschool, and in classes organized primarily for adults.	AGRI	Agriculture	MAJ	
ELAS	The following instructional services may be provided to English learners within the content area(s) listed on this document: (1) English language development defined as instruction designed specifically for limited-English-proficient students to develop their listening, speaking, reading, and writing skills in English; and (2) specially designed content instruction delivered in English defined as instruction in a subject area, delivered in English, that is specially designed to meet the needs of limited-English-proficient students. This English learner authorization also covers classes taught on the basis of other valid, non-	NONE		MAJ	

SHAFTER FFA CALENDAR OF ACTIVITIES 2016-2017

AUGUST

12-13- Chapter Officer Boot Camp @ SLO

17- School Starts

20- Chapter Officer Leadership Conference

@ Frontier 8:30 am

SEPTEMBER

5- *No School Labor Day*

6- FFA Meeting 6:30 pm

7- Greenhand Conference- Bakersfield

21-Oct 2-Kern County Fair

OCTOBER

11- FFA Meeting 6:30pm

21- Fall Harvest

19-22 National FFA Convention

28- Reedley College Freshman Field Day

NOVEMBER

1- FFA Meeting 6:30 pm

8-10, 14- Opening & Closing Practice

11- Veterans Day Holiday

15- SV Opening & Closing Contest

@ Independence-5pm

21-25 Thanksgiving Break

29- SV Novice Records/BIG/ Coops- BC 5pm

DECEMBER

1- South Valley Section Activity

8- Banking Contest @Bkfd Ag Pavillion -4pm

9- Winter Officer Planning

26-Jan 6- Christmas Break

JANUARY

10- SV Speaking Contest Manuscripts due

16- Martin Luther King Jr. Day

17- FFA Meeting -6:30

20- SJ Regional Officer Apps Due

28- Public Speaking Contest @ Wasco-8:30 am

FEBRUARY

7- State Degree/ Proficiency Scoring

SHAFTER FFA CALENDAR OF ACTIVITIES 2016-2017

14-16 Tulare Farm Show

17-20 MFE/ALA Conferences@ Visalia

20- Presidents Day

20-24 National FFA Week

24- FFA Meeting @ 6:30pm

25- San Joaquin Regional Meeting @ ?

28- State Officer Testing

MARCH

4- UC Davis Field Day

14- SV Parli Pro Contest @ Foothill- 5pm

17- Regional Speaking @ COS -9 am

18- Merced FD/ Dinuba Vet Science

25- MJC Field Day

30- State Degree Ceremony @ Bkfd Ag Pavillion-6pm

31- Regional Parli Pro Contest @ COS -12 pm

APRIL

1- Reedley Field Day

4- FFA Meeting- 6:30 pm

8- Pomona Field Day/ Clovis Vet Science

10-17 Spring Break

18- Sectional Officer Applications Due

20- State Speaking Finals

21- State Parli-Pro Finals

22-25 State FFA Leadership Conference @Fresno

27- Fair Meeting 6 pm

MAY

1- Chapter Officer Applications Due

2- Chapter Officer Interviews

3- KAF Scholarship Night @ Bkfd Ag Pavilion

4- Officer Speech Recording

6- Cal Poly State Finals

8- Sectional Officer Candidate Interview @ West

9- SV Section Elections @ Delano 4 pm

12, 15, 17- Banquet Practice

18- Shafter FFA Banquet

Professional Development for the 2016-2017 School Year

- Focus on Freshman Conference (summer)
- Rick Morris Trainings (August)
- School Site In Services (August & January)
- Regional Meetings and Road show (November/February)
- Gizmo Training (September/November/February)
- BTSA Meetings
- Kern High School District Agriculture and Principles luncheon (November)
- New Professionals (November)
- San Joaquin Region Industry Tours (November)
- AET Training (December)
- Teach Like a Champion (Spring)
- Timeless Teachers (Spring)
- Brain Conference (February)
- CPR Renewal Training

Shafter

Demographics

Gender

Pathway Name	Gender		
	Female	Male	Withheld
Agricultural Business	10	10	
Agricultural Mechanics	2	99	
Agriscience	153	102	1
Animal Science	16	8	
Ornamental Horticulture	75	18	

Race

Pathway Name					
	Black	Hispanic/Latino	Two or more	White	Withheld
Agricultural Business	1				19
Agricultural Mechanics				10	91
Agriscience		1		25	230
Animal Science				1	23
Ornamental Horticulture			1	15	77

Ethnicity

Pathway Name		
	Hispanic	Non-Hispanic
Agricultural Business	19	1
Agricultural Mechanics	90	11
Agriscience	227	29
Animal Science	23	1
Ornamental Horticulture	85	8

Freshman Persistance

Years in Ag	Students	Percent
1	33	51.56%
2	11	17.19%
3	10	15.63%
4	4	6.25%
5	6	9.38%
Freshman Cohort Students	64	

Average Years Completed: 2%

Shafter

Chapter Summary

Last Name	First Name	Gender	Ethnicity	Years Teaching	Credentials	Base Salary	Extended	FFA Stipend	Dept Head Stipend
Bledsoe	Elizabeth	Female	White	8	Ag Specialist Single Subject	$69,735	$10,000	$0	$0
Morales	Mark	Male		23	Ag Specialist Single Subject	$83,125	$16,625	$0	$0
Nichols	Teddi	Female	White	2	Ag Specialist Single Subject	$49,000	$8,000	$0	$0
Renick	Ellen	Female	White	2	Single Subject	$49,600	$5,236	$0	$0

Morales, Mark

Period	Course Title	Enrollment	Pathway
1	Agricultural Welding	1	Agricultural Mechanics
1	Introduction to Agricultural Mechanics	16	Agricultural Mechanics
2	Agricultural Welding	19	Agricultural Mechanics
4	Introduction to Agricultural Mechanics	23	Agricultural Mechanics
6	Introduction to Agricultural Mechanics	26	Agricultural Mechanics
7	Agricultural Welding	8	Agricultural Mechanics
7	Fabrication & Construction	11	Agricultural Mechanics

Nichols, Teddi

Period	Course Title	Enrollment	Pathway
1	Agricultural Environmental & Earth Science	37	Agriscience
2	Agricultural Environmental & Earth Science	39	Agriscience
3	Veterinary Science	25	Animal Science
4	Agricultural Environmental & Earth Science	35	Agriscience
6	Agricultural Environmental & Earth Science	27	Agriscience
7	Agricultural Environmental & Earth Science	36	Agriscience

Bledsoe, Elizabeth

Period	Course Title	Enrollment	Pathway
1	Ag Economics	19	Agricultural Business
1	Floriculture & Floral Design	4	Ornamental Horticulture
2	Ag Economics	1	Agricultural Business
2	Floriculture & Floral Design	25	Ornamental Horticulture
3	Floriculture & Floral Design	30	Ornamental Horticulture
4	Floriculture & Floral Design	18	Ornamental Horticulture
7	Crop Production	19	Ornamental Horticulture
7	Floriculture & Floral Design	1	Ornamental Horticulture

Renick, Ellen

Period	Course Title	Enrollment	Pathway
1	Sustainable Agriculture	37	Agriscience
2	Sustainable Agriculture	1	Agriscience
3	Sustainable Agriculture	26	Agriscience
4	Sustainable Agriculture	1	Agriscience
6	Sustainable Agriculture	31	Agriscience

Shafter

Graduate Follow-Up Data

Total Seniors (2015 Graduation Year): **59**

Total Seniors Completing 3 or more years in Ag: **18**

Program Completer Status	Count
Two Year College - Ag Major	6
Four Year College - Non-Ag Major	4
Employed - Fulltime - Ag Job	3
Two Year College - Non-Ag Major	3
Employed - Fulltime - Non-Ag Job	1
Location or Position Unknown	1

OFFICE OF INSTRUCTION

REUEST FOR APPROVAL OF FIELD TRIP, OUT OF AREA TRIP,
AND/OR OVERNIGHT TRIP

__X__ Local Field Trip or Co-Curricular Trip (School Site Administrative approval)	* Submit this from to local school administration at least ten (10) days in advance of trip
___ Out of Area Trip over 150 miles or overnight (Assoc. Supt./Director of Insturction approv	* complete from and return at least thirty (30**) school days in advance of trip
__ Trip Out of State (incl. Mexico and/or longer than 3 school da	*Complete form and return at least sixty days in advance of trip
____ Trip to foreign country (except Mexico) (Assoc. Supt./Director of Insturction approv	*Complete form and return at least one year in advance of trip

* See back of sheet for additional forms
** Trips earned in compttition are exempt from this 30 day limit, but should be turned in as soon as possible

(Please Complete All Questions)

SCHOOL:	**Shafter High School**			REQUEST DA	**January 25, 2017**
Person in charge:	**Teddi Nichols**			Group: **Shafter FFA**	
Destination:	**Bakersfield, CA**			Distance/one	**22 miles**
Purpose of Trip:	**Farm Day in the City**			Estimated Cost:	
Proposed Means of Transportati	**School Van**			# of Students	**9**
Day/Date of Leaving	**Mar**	**09**	**2017**	Time of leavir	**7:00 am**
Day/Date of Return	**Mar**	**09**	**2017**	Time of Retur	**3:30 pm**
Group Responsible for Financing:					
Chaperons:	**Teddi Nichols**				
List any stops enroute:	**None**				
Additional Comments:					

Approved:

Director of Activiites/Transportation	Date
Principal/Assistant Principal	Date
Director/School Support Services, Athletics (if athletics	Date
Associate Superintendent and.or Dirctor of Instruction	Date
Superintendent/Secretary, Board of Trustees	Date

(Submit in Duplicate of Office of Instruction)

Program of Work
FFA Travel Budget 2011-12

School: **Shafter High School**
Group: **Ag Dept/FFA**
Person in Charge: **Elizabeth Bledsoe**
Chaperones: **Bledsoe, Nichols, Morales, Rennick**
Request Date: **7/1/16**
Adopted by the membership on _____

Month	Date Leaving	Date Return	Time Leaving	Time Return	# of Students	Activity	Location	Trans	Budget	Distance
June	25	25	7 am	12 pm	10	Chapter Officer Retreat	Bakersfield	van, truck	$100	20
July	19	19	5 AM	1 PM	10	Farm Bureau Ag Teacher Breakfast	Bakesrfield	2 trucks	$0	25
	21	21	7 Am	2 pm	10	Chapter Offier Work Day	Shafter	2 trucks	$0	10
Aug	3	3	7	2 pm	10	Chapter Officer Work Day-Pictures	Bakersfield	2 Trucks	$0	20
	13	14	7 am	8 pm	10	Officer Bootcamp	Camp San Luis	van and truck	$200	118
	20	20	7 am	5 pm	10	Chapter Officer Leadership Conferenc	Frontier High Scho	1 Van 1 Truck	$100	12
Sept	7	7	7am	4pm	18	Greenhand Leadership Conference	Bakersfield	2 vans	$500	25
	21	2	6 am	5 pm	50	Kern County Fair	Fairgrounds	2 trucks, 3 vans	$100	23
Oct										
	15	15	4:00 PM	9:00PM	60	Opening/Closing Contest	Independence HS	Bus	$600	25
Nov	16	17	8:00 AM	5:00 PM	0	New Professionals Institute	Fresno	Truck	$100	108
	18	19	8:00 AM	4:00 PM	0	SJ Roadshow & CATA meeting	Tenaya Lodge	Truck	$400	159
	29	29	4pm	9:00PM	18	BIG/CoOps/Novice Records	Bakersfield Colleg	2 Vans	$200	23
	1	1	4:00 PM	9 pm	25	Sectional Skating	Skateland, Bakers	vans and truc	$100	23
Dec	8	8	4:00 PM	9 pm	5	Agri-Financing Contest	Ag Pavilion	truck	$0	25
	9	9	4:00 pm	10:00 pm	10	Winter Officer Retreat	Bakersfield	Van	$100	20
Jan	28	28	7:00 Am	4:00 PM	25	SV Speaking Contest	Wasco HS	vans and truc	$300	9
	21	21	4:00 PM	9:00 PM	22	CSUB Basketball Ag Night	Bakersfield	vans and truc	$0	16
	27	27	4:00 PM	9:00 PM	9	Highland Vegetable Judging Contest	Highland	Van	$0	24

Program of Work
FFA Travel Budget 2011-12

Month	Date Leaving	Date Return	Time Leaving	Time Return	# of Students	Activity	Location	Trans	Budget	Distance
Feb	7	7	4:00 PM	9:00 PM	0	State Degree/Proficiency Scoring	Ag Pavilion	Truck	$0	25
	17	18	8:00 Am	8 pm	18	Made For Exc. Conference (MFE)	Visalia	2 vans	$1,800	65
	25	25	7:00 AM	5 pm	12	San Joaquing FFA/CATA Meeting	Tulare	van and truck	$100	55
Mar	10	11	8:00 Am	11 PM	12	Chico State Field Day and Tour	Chico	van and truck	$500	359
	14	14	4:00 Pm	10:00 PM	12	SV Parli Pro Contest	Foothill HS	van and truck	$108	28
	17	17	7:00 AM	4:00 PM	4	Regional Speech Contests	COS	Truck	$0	57
	30	30	4 pm	9:00 PM	20	SV State Degree Banquet	KC Fairgrounds	Truck	$200	23
	31	31	6 am	6 pm	12	Regional Parli Pro	COS	van and truck	$100	57
April	7	8	4pm	4 pm	12	Cal Poly Pomona Field Day	Pomona	van and Truc	$500	155
	22	25	5 am	4 pm	27	Fresno Field Day/State FFA Conventio	Fresno	3 vans	$5,000	108
	29	29	6 am	5 PM	9	Madera Floral Contest	Madera HS		$100	122
May	3	3	4 pm	8 pm	4	Kern Ag Foundation Scholarship Night	Ag Pavilion	Truck	$0	25
	5	6	8AM	9 pm	12	Cal Poly State Finals	San Luis Obispo	van and truck	$500	118
	8	8	4 pm	9 pm	9	Sectional Officer Interviews	West HS	van	$0	22
	9	9	4 pm	9 pm	9	Sectional Elections- Speeches	Delano HS	Van	$63	25
	16	16	4 pm	9 pm	0	CATA Planning Meeting	Bakersfield	Truck	$0	20
	23	23	3 pm	9 pm	0	American Degree Scoring	Tulare	Truck	$0	55
June	25	29	10 am	5 pm	0	State CATA Conference(Teachers)	San Luis Obispo	truck	$2,000	118

CALIFORNIA AGRICULTURAL TEACHERS' ASSOCIATION

Teddi Nichols

SERVING AGRICULTURE BY TEACHING
2016/2017 ACTIVE MEMBER

"Home of the Generals"

SHAFTER HIGH SCHOOL

526 MANNEL AVENUE
SHAFTER, CALIFORNIA
93263-1899

(661) 746-4961
FAX (661) 746-6743
http://shafter.kernhigh.org

RUSSELL G. SHIPLEY, PRINCIPAL

KERN HIGH SCHOOL DISTRICT

BOARD OF TRUSTEES

J. Bryan Batey, Vice President
Jeff Flores, Clerk Pro Tem
Phillip Peters, Clerk
Chad Vegas, Member
Mike Williams, President

SUPERINTENDENT

Bryon J. Schaefer, Ed.D.

November 28, 2016

New Professionals Conference Recap

Mr. Shipley,

I recently attended the New Professionals conference on November 16-17, 2016. This conference is designed for first through third year agriculture teachers. It is two days of workshops and meetings that help agriculture teachers succeed in their first three years. The workshops include curriculum development, new lab ideas for science classes, Ag mechanics workshops, fair and SAE project ideas, and FFA tips and tricks.

Not only do we learn from veteran teachers who know the agriculture teaching business; we also can meet other young agriculture teachers. This allows us to bounce ideas off of each other and learn new techniques to use in our programs. We also have time to speak with the veteran teachers who are presenting the workshops. I found the time I could communicate with my peers extremely beneficial.

There were two workshops this year that I received the most information from. They were the Ag Advisory and SAE workshops. In the Ag Advisory workshop, I learned what criteria our department should be using to select members, how our meetings should be run, and helpful tips in helping run the Ag Advisory meetings. The second workshop helped me to learn new SAE projects that students could complete; more than just raising an animal for the Kern County Fair. I look forward to attending next year and learning more helpful information for our program.

Sincerely,

Teddi Nichols

Shafter Agriculture Five Year Acquisition List

2015

- Digital Camera- $200
- 5 Breeding Ewes- $3,000
- Paint Kit- $500
- Floral Cooler- $10,000
- Forklift- $20,000

2016

- Science Supplies- $5,000
- Truck- $30,000
- Shop Supplies- part of D1 $1 million grant
- Sound System-$ 500

2017

- Textbooks (Vet Science, Biotechnology, Ag Mechanics) - $10,000
- Vet Science Supplies- $1,000

2018

- Copier- $25,000

2019

- Greenhouse- $20,000
- FFA Jackets, Ties & Scarves- $500
- Fair Supplies- $ 2,000

FFA Budget 2015-2016

Expenses

	Estimated	Actual
Total Expenses	**$26,412.90**	**$0.00**

June	Estimated	Actual
Officer Retreat	$1,000.00	
Totals	**$1,000.00**	**$0.00**

August	Estimated	Actual
COLC @10/student $12/adult	$126.00	
0		
Totals	**$126.00**	**$0.00**

October	Estimated	Actual
Club Meeting	$50.00	
Greenhand Conference @35/student	$650.00	
R-2 Leadership Packets @8.50/student +1	$2,862.50	
Fall Harvest	$150.00	
Totals	**$3,712.50**	**$0.00**

December	Estimated	Actual
Club Meeting-cookie	$50.00	
Poinsettias	$1,311.50	
Skatenight @8.00/student	$144.00	
SV Speaking Contests	$156.00	
Banking Contest-5 students	$60.00	
Totals	**$1,721.50**	**$0.00**

February	Estimated	Actual
FFA Week	$100.00	
MFE/ALA @100	$800.00	
Tulare Farm Show Tickets	$275.00	
Tulare Farm Show Bus	$550.00	
FFA Regional Meeting	$120.00	
FFA Bash@5.00 per person	$130.00	
Totals	**$1,975.00**	**$0.00**

April	Estimated	Actual
Club Meeting	$50.00	
Regional Parli Pro	$100.00	
Cal Poly Pomona Field Day	$125.00	
Pomona Hotel@142.15/night	$284.30	
KI Field Day	$42.00	
State Conference Reg @110/person	$1,610.00	
State Conference Hotels @154/night	$3,803.58	
Fresno State Field Day	$128.00	
Madera Floral Contest	100	
State degree Banquet	$1,010.00	
Totals	**$7,252.88**	**$0.00**

July	Estimated	Actual
Officer Retreat	$25.00	
Totals	**$25.00**	**$0.00**

September	Estimated	Actual
Club Meeting	$50.00	
Kern County Fair @ 48 adult 12 pass	$100.00	
Harvest Hall	$25.00	
Tshirts 105 pieces	$1,050.00	
Totals	**$1,225.00**	**$0.00**

November	Estimated	Actual
Club Meeting	$50.00	
Opening and Closing @10/student $12/adult	$636.00	
Bus	$250.00	
Totals	**$686.00**	**$0.00**

January	Estimated	Actual
Club Meeting	$50.00	
BIG/ CoOp/Novice Records $10/Student $12/adult	$154.00	
Totals	**$204.00**	**$0.00**

March	Estimated	Actual
Club Meeting	$50.00	
Chico State Field Day	$125.00	
Chico State Hotel @142.15 night	$284.30	
SV Parli Pro$10/Student $12/adult	$132.00	
Sectional Activity Night	$250.00	
Merced Field Day	$125.00	
Highland Vegetable Contest	$25.00	
Totals	**$991.30**	**$0.00**

May	Estimated	Actual
SV Officer Elections $10/Student $12/adult	$144.00	
Club Meeting	$50.00	
Cal Poly Field Day- Registration Veg	$25.00	
Cal Poly Registration Floral	$100.00	
Cal Poly Field Day Hotels	$846.72	
Banquet-Food	$800.00	
Banquet-Awards	$800.00	
Banquet-Decorations	$200.00	
Floral Disneyland Trip Tickets	$3,028	
Floral Disneyland Trip Bus	$1,500.00	
Totals	**$7,493.72**	**$0.00**

California Department of Education

AGRICULTURAL CAREER TECHNICAL EDUCATION INCENTIVE GRANT

2016–17 APPLICATION FOR FUNDING

(Due Date: To be received in Regional Supervisor's Office by June 30, 2016)

DATES OF PROJECT DURATION - JULY 1, 2016, TO JUNE 30, 2017

Shafter HS	Kern High School District
(School Site)	(District)

Certification: I hereby certify that all applicable state and federal rules and regulations will be observed; that to the best of my knowledge, the information contained in this application is correct and complete; and that the attached assurances are accepted as the basic conditions of the operations in this project/program for local participation and assistance.

	Agriculture Coordinator
Signature of Authorized Agent	Title
Signature of Agriculture Teacher Responsible for the Program	Signature of Principal

Contact Phone Number: (661)808-3447

Date of Approval of Local Agency Board: 5/31/2016

Funds Requested - Part I	$5,000.00
Part II	$2,592.00
Part III	$12,000.00
Part IV	$0.00
Total	$19,592.00

Number of Different Agriculture Teachers at Site: 4

PART I - QUALITY CRITERIA 1-9 (REQUIRED) ALLOCATION

Quality Criteria	Will Meet Criteria	Variance Requested
1. Curriculum and Instruction	X	
2. Leadership and Citizenship Development	X	
3. Practical Application of Occupational Skills	X	
4. Qualified and Competent Personnel	X	
5. Facilities, Equipment, and Materials	X	
6. Community, Business, and Industry Involvement	X	
7. Career Guidance	X	
8. Program Promotion	X	
9. Program Accountability and Planning	X	

Formal Variance Request must be included if requesting a variance. A variance is a proposed plan for bringing the program into compliance with required quality criteria. Variances should result in compliance prior to the following year's application. All variances must be approved with the application. Non-compliance with the terms of the approved variance will result in a loss of funds.

PART I - CONTINUED

Departmental Allocation: Meeting the criteria in PART I makes the program eligible for the following amounts based on the number of teachers in the program.

Total Number of Teachers	Amount Eligible	Amount Requested
One Teacher or Less	$4,000	
Two Teachers	$4,500	
Three Teachers or More	$5,000	$5,000.00

PART II - PROGRAM ENROLLMENT ALLOCATION

Total Number of Students	2015–16 R2 Number	Amount Requested
List Number from R2 Report ($8/Member)	324	$2,592.00

PART III - QUALITY CRITERIA 10–11 (OPTIONAL) ALLOCATION

Schools which qualify for a Departmental Allocation may apply for additional amounts for each specific Quality Criteria (10 and 11) met.

* Amounts requested in Quality Criterion 10 will be the indicated amount for that criterion, multiplied by the full-time equivalent (FTE). To count a preparation period, the teacher must be teaching Career Technical Education courses in Agriculture for 50 percent or more of their teaching periods.
* Amounts requested in Quality Criterion 11A will be the indicated amount for each teacher who was compensated a minimum of $2,000 for year-round employment.
* Amounts requested in Quality Criterion 11B will be the indicated amount for each teacher who is provided a project supervision period. Project periods will be counted if the teacher has a preparation period as part of the regular teaching day.

Number of FTE Agriculture Teachers at Site: 4

List the Names of the Agriculture Teachers:

1. Mark Morales	4. Ellen Renick
2. Elizabeth Bledsoe	5.
3. Teddi Nichols	6.

	Number Meeting Criteria	Amount Requested
Criterion 10 - Student/Teacher Ratio	2	$4,000.00
Criterion 11A - Year-Round Employment	4	$8,000.00
Criterion 11B - Project Supervision Period	0	$0.00
TOTAL FUNDS REQUESTED PART IV		$12,000.00

PART IV - QUALITY CRITERION 12 (OPTIONAL) ALLOCATION

Quality Criterion 12 Form is attached and all criteria has been met. If the answer is yes, list $7,500 (funds requesting) in space to the right.	$0.00

PART V - FINANCIAL SCHEDULE

Part A

			A	B		C
e	Acct. No.	Classification	Description of Item for Which Funds Will be Expended	Incentive Grant Funds		Matching Funds
1	4000	Books & Supplies		13,792.00		13,792.00
2			Subtotal for 4000	**$13,792.00**		**$13,792.00**
3	5000	Services and Other Operating Expenses such as: Services of Consultants, Staff Travel, and Conference; Rentals, Leases, and Repairs; Bus Transportation	1. Travel and Conf	5,000.00		5,000.00
4			2. Buses	800.00		800.00
5			3.			
6			4.			
			5.			
7			6.			
8			Subtotal for 5000	**$5,800.00**		**$5,800.00**
9	6000	Capital Outlay: Includes Sites and Improvements of Sites; Buildings and Improvement of Buildings; Equipment	1.			
10			2.			
11			3.			
			4.			
12			5.			
13			Subtotal for 6000	**$0.00**		**$0.00**
14			Total for 4000–6000 Lines 2, 8, 13	**$19,592.00**		**$19,592.00**

TOTAL 2016–17 Incentive Grant Allocation: $19,592.00

Part B - Complete this portion if a waiver of the matching requirement is requested:

			A	B		C
Line	Acct No.	Classification	Description of Item for Which Funds Were Expended	Incentive Grant Funds		Amount of Salary and Benefits
15	1000	Salaries	Teachers' Summer Service Salaries			
16	1000	Salaries	Teachers' Salaries for Project Supervision Period			
17	3000	Benefits	Benefits for the Above Items (1000)			
18			TOTAL			**$0.00**

TOTAL Amount of Waiver Requested: none

District/Department Budget Process

The Kern High School District is one of the largest districts in the state. This makes the budget process throughout the district a little complicated. The district receives funding and the superintendent of business distributes it to each school site. Once the school site has the funding, the Assistant Principal will divide and allocate categorical funds to those departments that are eligible at the school site. Once each department receives the amount they have to spend, they can create their budget. Funding sources for the Shafter Agriculture Department are the following: Incentive Grant (agriculture and CTE), Perkins, and FFA/ASB account (fundraising and floral monies). We also own a few acres of land that is our school farm. Part of this land is rented out to other companies and agencies. The monies from these companies is also a funding source to put back into improvement of our farm. The remaining funds is allocated to supplies, textbooks, and capital expenditures.

SHAFTER

2016/17 Teacher Responsibility

ACTIVITY / RESPONSIBILITY	BLEDSOE	MORALES	NICHOLS	RENNICK
Board Meetings	X	X	X	X
Department Chairman		X		
District Advisory Committee		X		
SOEP Supervisor	Poultry, Pumpkins, Floral	Swine	Sheep, Rabbits	Beef, Dairy,Goats
School Farm Management	X	X	X	X
Vehicle Maintenance	X	X	X	X
Safety Program Coordinator		X		
Livestock Pens	X	X	X	X
State FFA Degree Applications			X	X
American FFA Degree Applications		X		
R-2 Reports	X	X	X	X
Ag Proficiency Applications	X			
Summer Reports		X		
Survey Ex-Ag Students		X		
Special Assignments				
Department Calendar			X	
Department Handbook	X			
Greenhand Initiation				
Chapter FFA Degree				
Judging Trips and Contests				
Fresno State	X	X	X	X
Cal Poly, SLO	X	X	X	X
Reedley College	X	X	X	X
South Valley Section	X	X	X	X
Modesto Junior College	X	X	X	X
Kern County Fair	X	X	X	X
Chico	X	X	X	X
Pomona	X	X	X	X
California Farm Equipment Show	X	X	X	X

Building / Equipment Areas				
Ag Office	X	X	X	X
Ag Shop Area		X		
Ag Science Room	X		X	X
Project Pens	X	X	X	X
Crop Areas	X	X		
Ag Compound	X	X	X	X
Ag Computer Lab	X	X	X	X
Storerooms	X	X	X	X
Budgets				
High School Farm		X		
FFA General Account		X		
District Incentive Grant		X		
Judging Teams				
Cotton				
Vine Pruning				
Floral	X			
Vegetable Crops	X			
Public Speaking				
Prepared			X	
Creed			X	
Impromptu				X
Job Interview		X		
Extemp.	X			
Parli-Pro.			X	
Cooperatives	X			
BIG				
Horse Judging				X
Science Fair				X
Banking and Finance	X			
Ag Pest Control		X		

Vet Science			X	
Opening Closing	X		X	X
Novice Records				X
Department Reports				
FFA Membership	X	X	X	X
Student Directory	X	X	X	X
FFA Program of Work	X	X	X	X
Ag Department Advisory		X		
Parent Boosters	X			X
Total Department SOE Program	X	X	X	X
FFA Advisor	X		X	X

Ms. Teddi Nichols

Agriculture Department

Thank you very much for subbing for me. Below is the list of classes that I teach:

1st: Ag Resources

2nd: Ag Resources

3rd: Vet Science

4th: Ag Resources

5th: Lunch

6th: Ag Resources G

7th: Ag Resources

DEANS Number: 76014

1. Please write down the name of any student who misbehaves and I will speak with them when I return. **If there is a student or students who are being completely rude or misbehaving do not hesitate to call security.**
2. I have laid out the handouts and instructions for the day on the desk in the classroom.
3. The assignments need to be turned into the appropriate period in the green bin on the back counter.
4. **Please make them stay in their assigned seats for the whole period. They are not allowed to move to talk to friends.**
5. Students are not allowed in the Ag office or computer lab.
6. ***You dismiss the students, not the bell. It is a class policy that all students must be sitting in a seat when the bell rings. They cannot be dismissed until they do so. Please make them adhere to this rule while I am gone.***
7. Pictures/seating charts for each class are on the green clip board on my desk.

Thank you again!!

Teddi Nichols

Please score each class on a scale of 1-10 (see chart below) with 10 being "Great" and 1 being "terrible". I will be rewarding the class with the best score when I return.

Period	If you need help ask...	Potential Difficulties	Score
1 Ag Resources	Hannah R. Sydnie C. Esmerelda	There are a couple chatty boys in this class. If Andres M is not working consistently it is okay. Just let him do his work at his own pace. This class is pretty good. There shouldn't be too many problems.	
2 Ag Resources	Pamela B	There are some chatty kids in this class. For the most part they should work okay.	
3 Vet Science	Fernando G Victor D Yamilet L Maria B	This is a pretty good class as well. You shouldn't have too many problems. Michael S. can be loud and sometimes annoying. Just tell him to stop. If he gives you attitude after telling him to stop send him out.	
4 Ag Resources	Clarissa V	This group can be very squirrely and rowdy. Angel A, Israel G, Nick B will need reminders to do their work. They shouldn't be up all the time moving around but once or twice is okay.	
6 Ag Resources GATE	Victor D (TA) Valeria Eva	These students can get loud but most of them will just do their work.	
7 Ag Resources	Chloe E	This is a squirrely and rowdy class as well. They are all pretty chatty. Allow Julio E to get up and move around once or twice in the period if needed.	

Thank you again for subbing for me again. If you have any issues with the students please do not hesitate to call the **DEAN at 76014.**

Tuesday February 28, 2017

Ag Resources (Periods 1, 2, 4, 6, 7)

- The students need to work annotation for 20.2
- They should have the templates that they need to use. If they don't there are more in the annotation template folder in the front
- When they finish they need to finish missing work for the class.
- **Please have the students pick up their paperwork from the back of the classroom. If it is not picked up today I will throw it away on Wednesday.**

Vet Science (Period 3)

- Please pass out the notes that are on my desk.
- The students need to complete the New Horizons Worksheets. They will need to use the magazines on my back counter.

Program Completer at Shafter High School

A student in the agriculture program is considered a Program Completer after at least three years in the agriculture program and earning their State Degree. The student who receives their state degree their junior year is eligible for the title of program completer their senior year. The students must complete and be enrolled in one of the pathways offered in our department. The pathways all start with the Ag Earth Science class as freshman. They may also take Beginning Ag Mechanics their freshman year if they choose the Ag Mechanics pathway. Most students will also take the Ag Biology class their sophomore year. From there, they will choose their pathway. They can choose Ag mechanics, Floral/Horticulture, or Veterinary Sciences. They must also maintain a SAE project all four years as well as attend at least four FFA activities each semester. Those who are program completers receive a FFA sash to wear at their graduation ceremony.

Community College Agreement

The Kern High School District has an agreement with our local community college, Bakersfield College, for dual enrollment. There are certain classes on each school site that offer students dual enrollment. The students have the choice to dual enroll but many will take the opportunity. The students then are also registered through the community college and will receive credit at the high school and college level. This program is in its first full year. There are still many kinks and problems that need to be sorted out. Although, this program has been very beneficial to our students.

Reimbursement Process

To receive reimbursement for travel and conferences in the Kern High School District, employees must fill out a Request to be Absent. The request must include all hotel, registration, personal vehicle and food expenses.This form is submitted to the site administration for approval. Once approved it is sent to the district office. When the trip is complete the employee must submit all receipts expect for food purchases. The district allots a certain amount per meal and that is the amount that can be claimed once the trip is complete. The allowance for meals are the following: Breakfast -$ 9, Lunch- $11 and Dinner- $20.

Another way to receive reimbursement is for personal expenses. To complete this the employee must complete a Request for Payment and Disbursement Authorization. This form is filled out, signed and turned in to the Financial Office at the school site. Any purchases in the value of $250 or more must also have a PO request attached. All requests must have any receipts or bills attached as well. The finance office will process the paperwork and cut a check. The checks are either mailed or picked up by the requesting employee.

Kern High School District
Business Office

PLEASE READ THIS CAREFULLY

RE: CONFERENCE ATTENDANCE AND TRAVEL REIMBURSEMENT

Your request to attend the professional conference indicated on the attached form has been approved. Please comply with the following directions.

1. The employee is responsible for conference registration, hotel reservations, and submitting expenses for reimbursement.

2. Claims for reimbursement with all supporting documentation must be made within 30 days of the last date of conference.

3. The employee must retain all receipts or tickets for registration, hotels, travel (including air and rental cars). All expenses other than meals and ground transportation must be verified by payment receipt. A copy of your registration form and payment receipt must be submitted with the reimbursement request. This is particularly important when any meals are included in the registration.

4. District will reimburse expenses for employees only.

5. Authorized expenditures:

    1. Lodging *
    2. Registration fee *
    3. Approved air travel and rental car *
    4. Meals on overnight travel only – no reimbursement for one day trips
    5. Ground transportation (taxi, shuttles)
    6. Gratuities and incidentals without receipts -- $3.00 a day
    7. Bridge and freeway tolls
    8. Mileage – 57.5¢ per mile (*effective January 1, 2015)*

    *** Reimbursement for lodging, registration fees, air travel and rental car requires a copy of the statement showing payment.**

6. Per diem allowance for meals.

Breakfast	$ 9.00	*Exception*
Lunch	11.00	
Dinner	20.00	Actual cost of official conference meals may be reported.

(Continued on back side of page)

7. Hotel/Motel Accommodations:

   It is recommended that the employee use other than luxury hotels. A number of lodging chains, such as Holiday Inn, Ramada Inn, Quality Hotels, Doubletree, Marriott, are generally adequate and offer modest rates. Movie rentals and personal items charged to a room are not reimbursable expenses. A copy of the hotel/motel bill must be included even if payment was made by a district credit card.

8. Ground Transportation:

   A. Reimbursement is not allowed when employee is provided with a District car.
   B. Reimbursement is restricted to taxi or shuttle transportation between airports or train station and hotel/motel and between hotel/motel and place of conference.

9. Registration:

   Only the amount of the pre-registration for member can be requested.
   (No late fee or non-member fee or membership fee)

10. One personal phone call is allowable for each night of lodging with a maximum limit of $5.00.
    All calls must be verified by receipt and submitted along with reimbursement request form.

11. Reimbursement for meals on overnight travel only. No reimbursement for one day trips.

If no expense required, return the reimbursement form with notation no expense.

PLEASE RETURN COMPLETED REIMBURSEMENT REQUEST FORM TO THE OFFICE OF INNOVATIVE PROGRAMS

KERN HIGH SCHOOL DISTRICT

REQUEST TO BE ABSENT

FROM ASSIGNED RESPONSIBILITIES FOR PROFESSIONAL ACTIVITIES

Instructions: This form is to be submitted by all personnel who expect to be absent from duties, other than for personal necessity or other leave. It must be received by the Office of Innovative Programs 10 days *prior* to absence.

Name: Teddi Nichols

School: Shafter High Department: Ag

Destination (City/State): San Francisco
Attach letter of explanation for out-of-state travel.

Reason (Explain in detail): Learning and the Brain Conference

Dates: from March 17 to March 19 Total Days for this Activity: 3

Substitute: NO ☐ YES X ☐ Dates and Periods: February 16 – February 19, 2017

Funding Source/Substitute: Acct #: 06-3010 - 0 - 0000 - 1110 - 1105 - 03130 - 6411
CASE Job #

Funding Source/Expenses: Acct #: 06- 33010-0-0000-2100 -5200 - 03130-6411

Estimated Expenses:

☐	Registration	$499.00 – Paid through funding source
☐	Hotel/Motel Name SF Hilton Union Sq.	$190.00 p/night x3 – Paid through funding
☐	Meals	$120.00
☐	School Vehicle	no expense
☐	Private Car: *Effective 1/1/16 mileage reimbursement: .54¢	0
☐	Other Transportation:	0
☐	Other: Hotel Parking and Daily Transportation to Conf. site	$ Please have receipts for reimbursement

TOTAL ESTIMATE: $1,189.00

Date: 11/9/2016 Signature *Teddi Nichols*

SCHOOL AUTHORIZATION

The expenses listed above are approved.

Date:_____ Principal's Signature:_____

DISTRICT AUTHORIZATION

Date:_____ District Approval:_____

(SEND TO THE OFFICE OF INNOVATIVE PROGRAMS)

Request for Payment and Disbursement Authorization
(Check Request)

Request

Date of Request _____ Amount _____

Date approved by Club or Organization _____ Account Number _____

Mail _____ Box _____ Account Name _____

Vendor No. _____ Purchase Order _____

Payee _____

Address _____

Phone No. _____ Fax No. _____

Federal ID # (Social Security) _____

Purpose _____, Invoice # and Date

_____

_____

Authorized Signatures: **Date:**

Student _____ _____

Athletic/Activities Director _____ _____

Advisor _____ _____

Principal _____ _____

Representative _____ _____

All disbursements over one hundred dollars require a signed authorization. Disbursements for student organizations require an authorization signed by a board designated employee, i.e., activities director, an advisor, and a student representative. Disbursements for non-student organizations require an authorization signed by a board designated employee and an approved representative of the organization. Other disbursements, such as scholarship distributions, require and authorization signed by a board designated employee and the principal.

Checks will not be processed without authorized signatures.

KHSD-019

DISTRICT COPY

IMPORTANT
PO Number MUST appear on all invoices, packages and correspondence.

Shafter High School

Request for Purchase Order

PO Number _____

Club Name _____ ASB Account # _____ Date _____

Vendor # _____ Event Request # _____

Vendor Name _____ Phone # _____ Date Needed _____

Address _____ Fax # _____ Mail _____ Box _____

_____ Pick Up _____ Fax _____

Quantity	Item #	Color	Size	Description	Cost per Unit	Total Cost

For services provided by out-of-state vendors, there will be a 7% CA tax withheld unless an approved exemption has been filed with the District.

Prior to approval, check the district computer system for vendor holds and restrictions.

Shipping / Handling _____

Tax _____

Total _____

Advisor Name _____

Student Approval _____

Finance Office Approval _____

Act./Ath. Director Approval _____

Other Approval _____

Federal Tax ID Number _____