Converting Agricultural Lesson Plans to be Common Core Compliant for Grades 3-5

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Introduction

- There are few Common Core approved lesson plans for teachers to intermix with traditional science lessons in California.
- The California Ag in the Classroom website has only 13 Common Core approved lesson plans out of the 45 lessons they offer (Learn About Ag, 2017).
- **Purpose:** Create Common Core compliant lessons covering different components of agriculture. The intent is to encourage agricultural education in elementary school classrooms with the goal of increasing agricultural literacy in youth.

Background

- The mission of Agriculture in the Classroom is to "increase agricultural literacy through K-12 education" (NAITC, 2017).
- Agricultural literacy is to "understand the food and fiber system...including its history and its current economic, social and environmental significance to all Americans" (National Research Council, 1988).
- Agricultural literacy is valuable to consumers, can lead to careers in agriculture, and create a greater understanding of the world and of science for students. Agricultural lessons also give students a real life relationship with what they are learning and encourage a higher rate of agricultural literacy in society.

Methodology

- Common Core standards that relate to agriculture education were researched and lessons that correlate with those standards were identified.
- Common Core compliant lesson plans were researched and a template was obtained to use as a guide for the lessons.
- The lesson plans were rewritten in Common Core compliance using the standards and templates previously found.
- The Farm Bureau’s program Ag in the Classroom was contacted for guidance and resources to ensure the lesson plans developed meet the Common Core standards as intended.

Results

Lesson 1: Plants Grown in Different Environments

<table>
<thead>
<tr>
<th>In the Bag</th>
<th>In the Cup with sun and water</th>
<th>In the Cup with sun and no water</th>
<th>In the Cup in the dark closet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant A</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Plant B</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Plant C</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Lesson 2: Growing Plants with Hydroponics

<table>
<thead>
<tr>
<th>Hydroponics Facts Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
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<tr>
<td>X</td>
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</tbody>
</table>

Conclusion & Recommendations

- **Conclusion:** There are many resources that can aid in converting lessons. Ag in the Classroom provides examples to refer to and people to contact for questions. The Common Core Team for the California Department of Education can answer questions and provide guidance.
- **Recommendations:**
  - Develop a unit of lessons modeled like the examples found on Ag in the Classroom.
  - Submit units to be reviewed and published on agclassroom.org and/or learnaboutag.org.