

Class: Biotech & FDSC	Unit: Applications of Biotech	Lesson: What is the Green Revolution?
<b>Materials</b>	<ul style="list-style-type: none"> <li>● Poster paper</li> <li>● markers</li> </ul>	
<b>National AFNR Standards</b>	<b>Biotechnology Systems</b> BS.01.01.02.c. Evaluate the outcomes and impacts of biotechnology on the globalization of agriculture.	
<b>PA Academic Standards</b>	<b>Technology and Engineering Education</b> Standard - 3.4.12.B1. Analyze ethical, social, economic, and cultural considerations as related to the development, selection, and use of technologies.	
<b>Objectives</b>	<ol style="list-style-type: none"> <li>1. Discuss the major events of the Green Revolution to teacher satisfaction.</li> <li>2. Develop a logical argument for “Was the Green Revolution more harmful or beneficial?” by giving 2 supporting reasons to teacher satisfaction.</li> <li>3. Design a crop that could be bioengineered to solve the famine in Eastern Africa to teacher satisfaction.</li> </ol>	
<b>Warm-Up</b>	What comes to mind when you hear the words Green Revolution? (without using Google)	
<b>Interest Approach</b>	Show video and discuss current famine in Africa <a href="https://www.youtube.com/watch?v=aNbGtWSAV_c&amp;t=207s">https://www.youtube.com/watch?v=aNbGtWSAV_c&amp;t=207s</a>	
<b>Body</b>	<ul style="list-style-type: none"> <li>● Research the Green Revolution:               <ul style="list-style-type: none"> <li>○ <i>The Problem - Why was there a need for a Green Revolution??</i></li> <li>○ <i>who is Norman Borlaug? (his education, his role in the Green Revolution)</i></li> <li>○ <i>the Rockefeller Foundation's pioneering technical assistance program in Mexico</i></li> <li>○ <i>Shuttle Breeding &amp; Selective Breeding - how Borlaug developed the semi-dwarf, disease resistant, high yield wheat variety</i></li> </ul> </li> <li>● Discussion - write down a question you would like to discuss. rotate between outside/inside discussion circle.</li> </ul>	

	<ul style="list-style-type: none"> <li>● Future Green Revolution: Read national geographic article and design your own crop to solve the following famine/crisis (make a model or poster). <ul style="list-style-type: none"> <li>○ Severe drought in the area.</li> <li>○ Farmers don't have money to purchase additional supplies besides the seed.</li> <li>○ Climate: Desert, Steppe, Savanna</li> <li>○ Here are the crops you can choose from to produce the perfect grain for East Africa: maize, millet, sorghum.</li> </ul> </li> </ul>
<b>Wrap-Up</b>	Cognitive connect and review objectives
<b>Daily Assessment</b>	Poster and worksheet
<b>Adaptations &amp; Accommodations</b>	<ul style="list-style-type: none"> <li>● Chunking assignments</li> <li>● Frequent check-ins when working independently</li> <li>● Use a study buddy when completing assignments</li> <li>● Preferential seating</li> <li>● Read directions aloud and provide them written</li> <li>● Benchmark due dates on projects</li> <li>● Provide study guides</li> <li>● Provide guided notes and graphic organizers</li> </ul>