

Bioengineering a Sustainable World – Lesson 2

Current Event Research and Presentation Rubric

Standard:	Level 1	Level 2	Level 3	Level 4
<p>HS-ESS3-4 Students effectively identify a technological solution for limiting future impacts of human activities on environmental systems as well as use scientific knowledge and understanding to evaluate the effectiveness of the technological solution.</p> <p>HS-ESS3-4 includes the following dimensions: SEP 6 - Constructing Explanations and Designing Solutions, DCI -ESS3.C: Human Impacts on Earth Systems & ETS1.B -Developing Possible Solutions, CCC7 – Stability and Change and ETS2.B – Influence on Engineering, Tech, and Science on Society & the Natural World</p>	<p>Students...</p> <ul style="list-style-type: none"> • Begin to identify and describe a technological solution • List effects of human activity on environmental systems • Recognize scientific reasoning used to design the solution • Start to describe how the solution functions 	<p>Students, with some error or missing detail...</p> <ul style="list-style-type: none"> • Identify and describe a technological solution • List and match an environmental system and the effects of human activity on the system • Identify and summarize some of the scientific reasoning used to design the solution • Describe how the solution functions • State criteria and constraints for the solution 	<p>Students...</p> <ul style="list-style-type: none"> • Identify and explain a technological solution • Discuss, in detail, the environmental system being impacted and the effects of human activity on the system • Identify and summarize scientific knowledge or reasoning used to design the solution • Describe how the solution functions and how it is intended to limit future impacts of human activity • Define and quantify criteria and constraints for the solution 	<p>In addition to skills at level 3 students...</p> <ul style="list-style-type: none"> • Find connections integrating other areas of study • Propose modifications to the solution to increase benefits and/or decrease costs or risks to people and environment
<p>Science and Engineering Practice 8: Obtaining, evaluating, and communicating information Students critically read and interpret scientific text as well as communicate the ideas presented in the text clearly.</p>	<p>Students...</p> <ul style="list-style-type: none"> • Selects 1-2 relevant sources about a technological solution • No evaluation of source for credibility • Read scientific text and identify 1-2 key ideas • Unable to communicate information or ideas effectively 	<p>Students...</p> <ul style="list-style-type: none"> • Selects 3-4 relevant scientific sources about a technological solution • Minimal evaluation of source for credibility • Read a scientific text and identify most of the key ideas • Summarize evidence or concepts using direct quotes • Communication of information either orally or written is ineffective 	<p>Students...</p> <ul style="list-style-type: none"> • Selects multiple relevant scientific sources about a technological solution • Evaluates evidence and credibility of each source • Critically read a scientific text and identify key ideas • Summarize complex evidence or concepts neatly and concisely • Effectively communicate information and ideas in one format (written or oral) 	<p>In addition to skills at level 3 students...</p> <ul style="list-style-type: none"> • Selects multiple relevant, high-quality, sources representing many viewpoints • Thoroughly evaluate each source for evidence and credibility • Effectively communicates information and ideas in multiple formats (written and oral)