

Unit: Technological Design Process	Concept: Cross Cultural Design
<p><b>Standard</b></p> <ul style="list-style-type: none"> <li>3.5.9-12.R Use a design thinking process to design an appropriate technology for use in a different culture.</li> </ul>	
<p><b>Key Learning</b></p> <ul style="list-style-type: none"> <li>(LTTG) Students will be able to analyze a problem in its entirety while recognizing the subcomponents interacting with human-made and natural environments.</li> </ul>	<p><b>Unit Essential Question</b></p> <ul style="list-style-type: none"> <li>How can I analyze a problem in its entirety while recognizing the subcomponents interacting with human-made and natural environments?</li> </ul>
<p><b>Essential Question</b></p> <ul style="list-style-type: none"> <li>How are cross cultural design skills applied in technology and engineering design?</li> </ul>	
<p><b>Key Vocabulary</b></p> <ul style="list-style-type: none"> <li>Examine, Culture, Design Thinking, and Access</li> </ul>	
<p><b>Learning Experience</b></p> <ul style="list-style-type: none"> <li>Students who demonstrate understanding can use a design thinking process to design an appropriate technology for use in a different culture.</li> <li>Clarifying Statement: High school students can benefit from examining relationships to technology in other cultures, such as the access (or lack of access) to technologies in specific cultures. For example, people in many locations around the world lack ready access to clean water. Strategies to address this problem will vary according to the resources and circumstances of a given location.</li> </ul>	
<p><b>(Big Idea) Technology &amp; Engineering Curriculum Framework Big Ideas</b></p> <ul style="list-style-type: none"> <li>There are requisite skills used in technology and engineering design.</li> </ul>	
<p><b>(SEP) Science and Engineering Practices</b></p> <ul style="list-style-type: none"> <li>Constructing Explanations and Designing Solutions - Design, evaluate, and/or refine a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and trade-off considerations.</li> </ul>	
<p><b>(DCI) Disciplinary Core Ideas</b></p> <ul style="list-style-type: none"> <li>NAEP T.12.1 - The decision to develop a new technology is influenced by societal opinions and demands. These driving forces differ from culture to culture.</li> </ul>	
<p><b>(TEP) Technology and Engineering Practices</b></p> <ul style="list-style-type: none"> <li>Making and Doing - Demonstrates the ability to regulate and improve making and doing skills.</li> <li>Attention to Ethics - Assess technological products, systems, and processes through critical analysis of their impacts and outcomes.</li> </ul>	

**Terms**

- (ETS) Engineering, Technology, and Applications of Science – Standards applicable across the Science, Environmental Literacy & Sustainability, and Technology & Engineering content areas.
- (LTTG) PDE Technology & Engineering Long Term Transfer Goals
- (Learning Experience) A learning experience refers to any interaction, activity, or other experience in which students acquire new understanding, knowledge, behaviors, or skills.
- (Big Idea #) PDE Technology & Engineering Curriculum Framework Big Ideas
- (SEP) PDE Science and Engineering Practices
- (DCI) PDE Disciplinary Core Ideas
- (TEP) PDE Technology and Engineering Practices