Concept: Evaluation

Standard

• 3.5.9-12.G Evaluate a technological innovation that was met with societal resistance impacting its development.

Key Learning

 (LTTG) Students will be able to investigate better solutions through a belief that opportunities can be found in every challenge.

Unit Essential Question

 How can I investigate better solutions through a belief that opportunities can be found in every challenge?

Essential Question

• How do the values and beliefs of societies shape attitudes toward technology?

Key Vocabulary

• Evaluate, Innovation, Society, Resistance, Norm, Development, Resolve, Conflict, Consensus, and Value

Learning Experience

- Students who demonstrate understanding can evaluate a technological innovation that was met with societal resistance impacting its development.
- Clarifying Statement: Throughout history, societies have made moral, ethical, and political decisions impacting
 the development of technological solutions and innovations. Sometimes those decisions are controversial and
 multifaceted. Societies differ in their norms and methods for resolving the problems that arise when
 conflicting values preclude consensus. For example, Germany made the decision to phase out all use of
 nuclear power due to public opposition to this energy source.

(Big Idea) Technology & Engineering Curriculum Framework Big Ideas

• The values and beliefs of societies shape attitudes toward technology.

(SEP) Science and Engineering Practices

Obtaining, Evaluating, and Communicating Information - Compare, integrate and evaluate sources of
information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order
to address a scientific question or solve a problem.

(DCI) Disciplinary Core Ideas

• ETS1.A: Defining and Delimiting Engineering Problems - Criteria and constraints also include satisfying any requirements set by society, such as taking issues of risk mitigation into account, and they should be quantified to the extent possible and stated in such a way that one can tell if a given design meets them.

(TEP) Technology and Engineering Practices

• Critical Thinking - Uses evidence to better understand and solve problems in technology and engineering, including applying computational thinking.

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