#### Standard

• 3.5.9-12.Z Recognize and explain how their community and the world around them informs technological development and engineering design.

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 (LTTG) Students will be able to engage as technological and engineering literate members of a global society.

#### **Unit Essential Question**

 How can I engage as a technological and engineering literate member of a global society?

# **Essential Question**

• Why is design important to human activity?

#### **Key Vocabulary**

• Community, Development, and Design

#### **Learning Experience**

- Students who demonstrate understanding can recognize and explain how their community and the world around them informs technological development and engineering design.
- Clarifying Statement: Technological developments are best achieved through experiences and interactions within a given context. For example, design of buildings should take into account local conditions including soil type, wind, and snow loads, and should also match local building codes and building styles.

# (Big Idea) Technology & Engineering Curriculum Framework Big Ideas

• Design is a fundamental human activity.

# (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

• ISTE 3D - Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.

# (TEP) Technology and Engineering Practices

- Attention to Ethics Assesses technological products, systems, and processes through critical analysis of their impacts and outcomes.
- Systems Thinking Designs and troubleshoots technological systems in ways that consider the multiple components of the system.

#### 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