Unit: Promotional Graphics Layout and Design	Concept: Project Planning

Standard

- 3.5.9-12.I (ETS) Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.

Key Learning

- (LTTG) Students will be able to apply investigation, imagination, innovative thinking, and physical skills to accomplish goals.

Unit Essential Question

- How can I apply investigation, imagination, innovative thinking, and physical skills to accomplish goals?

Essential Question

- How can one assess the impact of technology and engineering on society?

Key Vocabulary

- Prioritized Criteria, Trade Offs, and Aesthetics

Learning Experience

- Students who demonstrate understanding can evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.
- Clarifying Statement: When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts.

(Big Idea) Technology & Engineering Curriculum Framework Big Ideas

- Technology and engineering have both positive and negative impacts on society and the environment.

(SEP) Science and Engineering Practices

- 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.

(DCI) Disciplinary Core Ideas

- ETS1.B: Developing Possible Solutions - When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts.

(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