### **Unit: Design and Creation of Multimedia**

### **Concept: Finalizing and Presenting Designs**

#### **Standard**

- 3.5.9-12.N Analyze and use relevant and appropriate design thinking processes to solve technological and engineering problems.
- 3.5.9-12.P Apply a broad range of design skills to a design thinking process.
- 3.5.9-12.Y (ETS) Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
- 3.5.9-12.X Implement the best possible solution to a design using an explicit process.

### **Key Learning**

- (LTTG) Students will be able to employ hands-on problem solving, i.e., designing, making/building, producing, and evaluating outcomes.
- (LTTG) Students will be able to collaborate as part of a team, valuing the contributions of all members.

### **Unit Essential Question**

- How can I employ hands-on problem solving, i.e., designing, making/building, producing, and evaluating outcomes?
- How can I collaborate as part of a team, valuing the contributions of all members?

## **Essential Question**

• How can I finalize and present multimedia designs?

## **Key Vocabulary**

 Finalizing, Information, Media, Technology Skills, Productivity, Perseverance, Self-Discipline, Literacy, Communications, Lifelong Learning, Design Concept, Display, Proof Sheet, and Mock-Up

#### **Learning Experience**

• Students will finalize and digitally present functional, aesthetically pleasing, thought provoking, and expressive designs that solve communications problems. Students will convert raw projects and / or files into a format that can be view by any person on any computer.

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

Technologically literate people are well equipped to learn about and use technological products and systems.

## (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.B: Developing Possible Solutions Both physical models and computers can be used in various ways to aid in the engineering design process.
- ETS1.B: Developing Possible Solutions Computers are useful for a variety of purposes, such as running simulations to test different ways of solving a problem or to see which one is most efficient or economical;

and in making a persuasive presentation to a client about how a given design will meet their needs.

## (TEP) Technology and Engineering Practices

• Communication - Clearly coveys ideas in constructive ways, including through written and oral communication and via mathematical and physical models.

### **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