

<p><b>Unit: Design and Creation of Digital Graphics</b></p>	<p><b>Concept: Applying Design Principles</b></p>
<p><b>Standards</b></p> <ul style="list-style-type: none"> <li>• 3.5.9-12.N Analyze and use relevant and appropriate design thinking processes to solve technological and engineering problems.</li> <li>• 3.5.9-12.P Apply a broad range of design skills to a design thinking process.</li> <li>• 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.</li> <li>• 3.5.9-12.X Implement the best possible solution to a design using an explicit process.</li> </ul>	
<p><b>Key Learning</b></p> <ul style="list-style-type: none"> <li>• (LTTG) Students will be able to employ hands-on problem solving, i.e., designing, making/building, producing, and evaluating outcomes.</li> <li>• (LTTG) Students will be able to collaborate as part of a team, valuing the contributions of all members.</li> </ul>	<p><b>Unit Essential Question</b></p> <ul style="list-style-type: none"> <li>• How can I employ hands-on problem solving, i.e., designing, making/building, producing, and evaluating outcomes?</li> <li>• How can I collaborate as part of a team, valuing the contributions of all members?</li> </ul>
<p><b>Essential Question</b></p> <ul style="list-style-type: none"> <li>• How can I apply design principles to create effective digital graphic designs?</li> </ul>	
<p><b>Key Vocabulary</b></p> <ul style="list-style-type: none"> <li>• Balance, Visual Hierarchy, Focal Point, Contrast, Unity, Repetition, Alignment, Proximity, Spatial Depth, Illusion, Grid, and Template</li> </ul>	
<p><b>Learning Experience</b></p> <ul style="list-style-type: none"> <li>• Students will model, practice, and apply balance, visual hierarchy, focal point, contrast, unity, repetition, alignment, proximity, spatial depth, illusion, grid, and template to design, develop, and create effective designs.</li> </ul>	
<p><b>(Big Idea) Technology &amp; Engineering Curriculum Framework Big Ideas</b></p> <ul style="list-style-type: none"> <li>• There are universal principles and elements of 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>• 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.</li> </ul>	

**(TEP) Technology and Engineering Practices**

- Attention to Ethics - Assesses technological products, systems, and processes through critical analysis of their impacts and outcomes.
- 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