Unit: Foundations of Digital Graphics	Concept: Evolution of Digital Graphics

Standard

- 3.5.9-12.JJ Identify and explain how the evolution of civilization has been directly affected by, and has in turn affected, the development and use of tools, materials, and processes.

Key Learning

- (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 does technological knowledge often accelerate alongside other fields?

Key Vocabulary

- Evolve, Civilization, Affect, Development, Age, Tool, Material, Process, and Technology

Learning Experience

- Students who demonstrate understanding can identify and explain how the evolution of civilization has been directly affected by, and has in turn affected, the development and use of tools, materials, and processes.
- Clarifying Statement: The Stone Age started with the development of stone tools used for hunting, cutting, and pounding vegetables and meat and progressed to the harnessing of fire for heating, cooking, and protection. The Bronze Age began with the discovery of copper and copper-based metals. The wide application of new agricultural technologies such as the sickle, plow, windmill, and irrigation enabled farmers to grow more food. Sustained technological advancement caused many people to migrate from farms to developing towns and cities. Other influential developments in this age included weaving machines and the spinning wheel, which advanced the making of cloth. The invention of gunpowder and guns was an improvement over previous weapons for both hunting and protection.

(Big Idea) Technology & Engineering Curriculum Framework Big Ideas

- Historically, technological knowledge has accelerated along with other fields.

(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

- NAEP T.12.2 - Changes caused by the introduction and use of a new technology can range from gradual to rapid and from subtle to obvious, and can change over time. These changes may vary from society to society as a result of differences in a society's economy, politics, and culture.

(TEP) Technology and Engineering Practices

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

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