Standard

• 3.5.9-12.FF Evaluate how technology enhances opportunities for new products and services through globalization.

Key Learning

 (LTTG) Students will be able to exchange and explain ideas by sharing information with a larger community.

Unit Essential Question

• How can I exchange and explain ideas by sharing information with a larger community?

Essential Question

• How do advancements from one field impact another?

Key Vocabulary

• Exponential Growth, Innovation, Invention, Advancement, Opportunity, Globalization, Product, and Service

Learning Experience

- Students who demonstrate understanding can evaluate how technology enhances opportunities for new products and services through globalization.
- Clarifying Statement: Developing countries have in many cases bypassed telephone landlines in adopting
 cellular technology, which has been used not just for communication but also to complete a variety of other
 tasks, such as banking. This concept is referred to as late-comer advantage. The exponential growth curve of
 technology has led to innovations and advancements once thought unattainable. Advancements and cost
 reduction of technologies such as rapid prototyping, desktop CNC, and microcontrollers have provided
 opportunities for new and innovative product ideas.

(Big Idea) Technology & Engineering Curriculum Framework Big Ideas

• Technological knowledge and practices advance – and are advanced by – 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

• HS-ETS1-1 - Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

(TEP) Technology and Engineering Practices

• Optimism - Shows persistence in addressing technological problems and finding solutions to those problems.

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