Standard

• 3.5.9-12.II Investigate the widespread changes that have resulted from the Information Age, which has placed emphasis on the processing and exchange of information.

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

• How do technological advancements define the Information Age?

Key Vocabulary

• Information Age, Processing, Exchange, Data, and Information

Learning Experience

- Students who demonstrate understanding can investigate the widespread changes that have resulted from the Information Age, which has placed emphasis on the processing and exchange of information.
- Clarifying Statement: The development of binary language, transistors, microchips, and an electronic numerical integrator and calculator (ENIAC) led to an explosion of computers, calculators, and communication processes to quickly move information from place to place. Holography, cybernetics, xerographic copying, the breeder reactor, the hydrogen bomb, the lunar module, communication satellites, prefabrication, and gene editing have all been major developments during this time period.

(Big Idea) Technology & Engineering Curriculum Framework Big Ideas

Historical eras are often defined by technological advancements.

(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.12.11 - Give examples to illustrate the effects on society of the recording, distribution, and access to
information and knowledge that have occurred in history, and discuss the effects of those revolutions on
societal change.

(TEP) Technology and Engineering Practices

• Systems Thinking - Designs and troubleshoots technological systems in ways that consider the multiple components of the system.

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