



Grades 6–8

3.5.6-8.CC Technology and Engineering: Nature and Characteristics of Technology and Engineering

Students who demonstrate understanding can *consider historical factors that have contributed to the development of technologies and human progress.*

Clarifying Statement: For example, students can examine maps in a historical context and decipher how geography and availability of natural resources often determined the materials humans used for shelter.

Assessment Boundary: N/A

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Technology and Engineering Practices (TEP)
Asking Questions and Defining Problems Asking questions and defining problems in 6–8 builds on K–5 experiences and progresses to specifying relationships between variables, and clarifying arguments and models. <ul style="list-style-type: none"> Define a design problem that can be solved through the development of an object, tool, process or system and includes multiple criteria and constraints, including scientific knowledge that may limit possible solutions. 	Developing Possible Solutions <ul style="list-style-type: none"> A solution needs to be tested, and then modified on the basis of the test results, in order to improve it. Models of all kinds are important for testing solutions 	Optimism <ul style="list-style-type: none"> Critiques technological products and systems to identify areas of improvement.

Pennsylvania Context: Examples of Pennsylvania context include but are not limited to local examples of Pennsylvania’s food production, agriculture, urban agriculture, and aquaculture.

Pennsylvania Career Ready Skills: Analyze various perspectives on a situation

Connections to Other Standards Content and Practices

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
PA Core Standards: Reading and Writing in Science and Technical Areas	CC.3.5.6-8.A: Cite specific textual evidence to support analysis of science and technical texts. CC.3.5.6-8.G: Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table). CC.3.5.6-8.I: Compare and contrast information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.
PA Core Standards and Practices: Math	N/A



Standard Source	Possible Connections to Other Standard(s) or Practice(s)
Integrated Standards for Science, Environment & Ecology, and Technology & Engineering Standards Grades K–12	N/A