



**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)
<p><b>Asking Questions and Defining Problems</b> 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.</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	<p><b>ETS1.B: Developing Possible Solutions</b></p> <ul style="list-style-type: none"> <li>A solution needs to be tested, and then modified on the basis of the test results, in order to improve it.</li> <li>Models of all kinds are important for testing solutions</li> </ul>	<p><b>Optimism</b></p> <ul style="list-style-type: none"> <li>Critiques technological products and systems to identify areas of improvement.</li> </ul>

**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