Students who demonstrate understanding can examine the ways that technology can have both positive and negative effects at the same time.

Clarifying Statement: The form and function of technologies are shaped by the criteria considered when the technology is developed. Even beneficial and well-intentioned solutions can have negative impacts. For example, flush toilets led to improved health and hygiene; at the same time, they created a need for water treatment strategies that consume large amounts of energy and fresh water. This type of example provides students an opportunity to consider the importance of design criteria.

Assessment Boundary: N/A
<table>
<thead>
<tr>
<th>Standard Source</th>
<th>Possible Connections to Other Standard(s) or Practice(s)</th>
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</table>
| PA Core Standards: Reading and Writing in Science and Technical Areas         | CC.1.2.3.G: Use information gained from text features to demonstrate understanding of a text.  
CC.1.2.4.G: Interpret various presentations of information within a text or digital source and explain how the information contributes to an understanding of text in which it appears.  
CC.1.2.5.G: Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.  
CC.1.4.3.V: Conduct short research projects that build knowledge about a topic.  
CC.1.4.4.V: Conduct short research projects that build knowledge through investigation of different aspects of a topic.  
CC.1.4.5.V: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.  
CC.1.4.3.W: Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.  
CC.1.4.4.W: Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.  
CC.1.4.5.W: Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.                                                                                                                                                                                                 |
| PA Core Standards and Practices: Math                                          | MP.2: Reason abstractly and quantitatively.  
MP.7: Look for and make use of structure.                                                                                                                                                                                                                                 |