

Science Learning Progression

Grade level: 7/8

Prerequisite skill/knowledge:

Beginning to distinguish between science and technology. 4-5 APP

Differentiate between problems that can/cannot be solved using *technology*.

I can...label problems as solvable or unsolvable using *technology*.

Given 5 problems, properly identify those that are solvable by technology.

Define a problem that can be solved by *technological design*.

I can...describe a problem that requires a *technological solution*.

Written response

After reading a scenario, students identify and write a description of the problem that technology can solve.

Identify *criteria* for success.

I can...make a checklist of *criteria* (standards) that need to be met in order to successfully solve the problem.

Written response

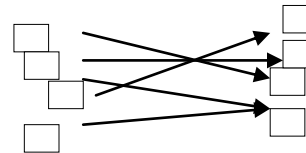
Considering the problem he/she described in the previous formative assessment, the student creates a checklist of 3 to 5 valid success criteria.

Research how others solved similar problems. Make connections and extensions.

I can...identify *issues/solutions* related to my own problems.

Research and make connections.

Students match each problem or solution on their card to a related problem or solution on someone else's card.



Brainstorm different *solutions*.

I can...think of *potential* (possible) *solutions*.

Brainstorm

Given a problem description (scenario), students brainstorm three ideas that could lead to a solution for the problem.

Define a problem that can be solved by *technological design*, and identify *criteria* for a successful design. Research how others solved similar problems and brainstorm *solutions*.
6-8APPD

Later big ideas that build on this big idea include:

Science and technology are interdependent.
Science and technology influence society.
Society influences technology.
Math and information technology can be used to solve problems.

9-12 APP