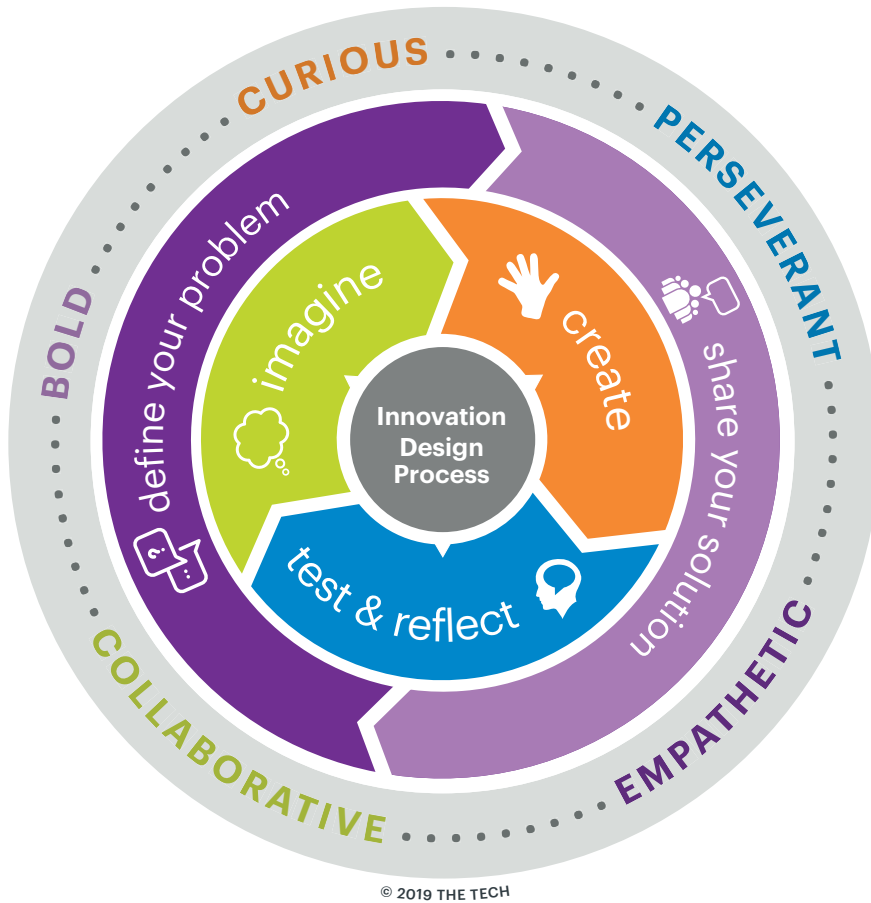# TECH TIP: Innovation Design Process

Design Challenge Learning is a dynamic way to develop learners as creative problem-solvers using real-world problems. These hands-on design challenges engage learners in an iterative and collaborative Innovation Design Process and build Innovator Mindsets that are key to future success.

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DEFINE YOUR PROBLEM

Why are we doing this?

What is the problem?

What part of the problem am I trying to solve?

IMAGINE

What could the optimal solution look like or work like?

How would I want to solve this problem?

What if ...?

CREATE

What materials do I want to use?

How will I make my design?

Yes, and ...

TEST & REFLECT

Does this address the criteria and constraints of what I am trying to accomplish?

Where are the failure points?

How can I optimize this design?

SHARE YOUR SOLUTION

Would you like to hear about my idea?

This was the idea behind my design.

Where do you see my design addressing the criteria and constraints?

KEY CHARACTERISTICS OF THE TECH'S INNOVATION PROCESS

NON-LINEAR
All aspects of the process are important, but there is no fixed sequence to going through these phases. In fact, innovators may engage in multiple phases simultaneously. For example, brainstorming can happen while tinkering with materials.

HANDS-ON
Manipulation of materials is important to innovation, even when working on abstract ideas. Physically representing our ideas, testing and refining them is not only a lot of fun, but can also result in creative solutions otherwise never explored.

ITERATIVE
Innovators create, test, refine over and over and over. They learn from failure and persevere to find the optimal solution within the criteria and constraints with which they are working.

For Tech Tip facilitation videos, visit **thetech.org/resources**.

The Bowers Institute