

Design Challenge 5: Create a Prototype!

Put your design to action by creating a prototype. A prototype is an early version of something that is meant to get better. In this design challenge you will create a working prototype of your innovation.

What You'll Need:

- Resources to create a physical prototype. Craft material like cardboard, tape, pencils and colors could potentially be helpful
- Space to create your prototype.
- Digital tool and access to the internet. (optional)
- Storyboarding Graphic Organizer
- Observe the Prototype in Action Observation Log

Quick Steps Guide

1. **Understand the Challenge:** Read or listen carefully to the challenge instructions. You're now moving on to planning your prototype by creating a storyboard.
2. **Review Your Innovation Goal:** Refresh your memory about the innovation goal you set in the previous challenge. Keep this goal in mind as you create your storyboard. Focus on how the users interact with the innovation.
3. **Choose a Storyboarding Tool:** Decide which tool you'll use to create your storyboard. You can use graphic organizers, Google Slides, Jamboard, Apple Keynote, or any tool that allows you to arrange images and text.
4. **Plan Your Storyboard:** Think about the steps involved in your innovation. Break down how it will work from start to finish. Each step will be a "scene" in your storyboard.
5. **Create Scenes:** Using your chosen tool, create individual scenes for each step of your innovation. Add images, drawings, or icons that represent what will happen in each step.
6. **Add Descriptions:** Alongside each scene, write a short description or caption to explain what's happening. Keep it simple and clear so anyone looking at your storyboard can understand.

7. **Arrange the Storyboard:** Arrange your scenes in the order they'll happen – just like a comic strip. Make sure the flow of the innovation is easy to follow.
8. **Review and Adjust:** Take a step back and review your storyboard. Does it make sense? Is it showing the progression of your innovation effectively? Make any necessary adjustments.
9. **Share Your Storyboard:** If you'd like, share your completed storyboard with friends, family, or your teacher. Explain your innovation goal and how your storyboard represents it.
10. **Reflect:** Think about the process of creating your storyboard. Did it help you visualize your innovation? How did it feel to see your idea mapped out?

Extend

Have students create a storyboard using presentation software or animation software. Potentially use an artificial intelligence program to create the images for your storyboard to help show how your innovation will have an impact on users and the environment in which it functions. Have the students create a timeline for steps in the project using a spreadsheet or to do lists.

Evaluate

As the students share their storyboards, determine if it is possible to scale up the project. Is it possible to build? Is it a process that could be implemented permanently or piloted? If the answers to these questions are yes, encourage students to further develop their ideas or potentially identify others who could provide feedback.