



HANDS-ON ACTIVITY:

Backpack Design Challenge

Design thinking is the process of human-centered innovation. Rather than looking at what we, the designers, think is most important, our focus is our user and his or her needs. The design thinking process reflects these steps:

1. Empathize
2. Define
3. Ideate
4. Prototype
5. Test

Skill Level:



Approximate Activity Time: 30-60 minutes

Supplies:

- Post-It® Notes
- Easel board
- Sketching materials

Optional Prototype Materials:

- Pipe cleaners, bubble wrap, duct tape, etc.

Lead the Backpack Challenge

STEP 1: Empathize

Brainstorm:

- What are current problems with YOUR own backpack?
- What do you wish you had in your ideal dream backpack?
- The sky is the limit; think big!

Take a moment to write your ideas on Post-It® Notes and then share as a group on the easel board.

STEP 2: Define

Establish a goal for the project. Define who your end user will be and what you plan to accomplish.

Brainstorm:

- Identify who you are going to design a backpack for and define user age and demographic: student, athlete, traveler, etc.
- How will the user typically use their bag?
- What does the user want for their backpack?

Write ideas on easel board. Decide as a group and select one “user”.

STEP 3: Ideate

Think about how to design the best backpack for your user.

Brainstorm:

- What features should be in this backpack?

Take a moment to write your ideas on Post-It® Notes and then share as a group on the easel board.

STEP 4: Prototype

Build a prototype (sample or a model) of your proposed design!

Is there someone in the group who is an artist? Have them listen to the ideas and sketch out a model of the prototype.

Send two representatives over to the supply table to gather materials the team will need to create a prototype.

As a group, divide up design aspects.

If time allows create different versions of the prototype.

STEP 5: Test

Designers use prototypes to test their ideas.

Identify what is working and what is not working with your prototype.

Remember, prototypes that fail are just as useful as prototypes that succeed because they contribute to the understanding of how to make a good final product.

Make notes about your discoveries and discuss as a group.



FINALE: Present Prototypes and Findings

Each group will present. Identify two representatives to present together. They will have one minute to talk about their user, their design, and what they learned in the process.