

Lesson 3 | SUPER FUNCTIONALITY

Provide students with a fun introduction to the design process as they invent a functional suit for a new superhero.

OBJECTIVE

Students will design a superhero's suit and explain how the features match the function.

STANDARDS

NGSS

Grades 1–2

ETS1-1. Define a problem

ETS1-2. Illustrate how an object solves a problem

Grade 3

ETS1-1. Define a problem

ETS1-2. Brainstorm multiple solutions

CASEL (SEL)

Self-Awareness: Having a growth mindset

TIME

45 minutes

MATERIALS

- Design a Superhero Challenge activity sheet
- *Superhero Tools and Functions* nonfiction reading passage

1 Tell students that in the final step in the hero recruitment process, they will explore superpowers.

2 Ask students to share their favorite superheroes. Invite them to turn and talk to a partner about what the superhero is able to do and what his or her suit looks like.

3 Prompt students to deepen their thinking:

- How do the parts of the suit match what the superhero is able to do (his or her function)? (For example, the suits that Ant-Man and the Wasp wear have a button that allows them to shrink to the size of an insect so they can sneak into places without being noticed.)
- What would happen if the superhero had a different suit? (For example, would Ant-Man be able to do the same things if he was wearing Black Panther's suit?)

For additional support, guide students to refer back to the ***Superhero Tools and Functions*** nonfiction reading passage from Lesson 1.

4 Explain that students will now have a chance to create their own superhero and to design a suit that will reflect and support their abilities.

5 Think aloud as you model creating your own superhero and suit as a demonstration for the class. (For example: The Amazing Olive travels the world to help stop fighting. She needs to be able to speak many languages, so she has a special earpiece that can translate any language.)

6 Distribute the **Design a Superhero** activity sheet. Have students respond to the prompts to create their superhero character and suit.

7 Invite students to share their creations with a partner or with the class.

8 Congratulate students on completing the hero recruitment process. Remind them they can use their heroic problem-solving and teamwork skills every day to help their community!



EXTENSION

Invite students to write a narrative or create a comic strip featuring their superhero. Promote growth mindset by asking students to show how their superhero tries and fails to solve a problem, but learns from the process and eventually succeeds.

Name _____

DESIGN A SUPERHERO CHALLENGE

When Tony Stark designed his Iron Man suit, he made sure that the suit's **shape and parts** matched its **function** (what it could do). Now, you will create your own superhero, plus their suit!

My superhero wants to help by _____.

My superhero's name is _____.

What My Superhero Can Do	How My Superhero's Suit Helps
<i>Example: fly quickly through the air (like Iron Man)</i>	<i>Suit has jet packs to push it through the air</i>

Draw your superhero's suit. Label the suit's parts.