

CHEAT SHEET

STEAM DESIGN CHALLENGES



SETUP

Before you begin any challenge, make sure you have the following

- Dedicated space for materials
- Labeled organization bins
- Variety of materials and found parts
- Safety rules clearly posted
- Anchor charts if necessary (for example: the different types of attachments)



CHALLENGE PROMPTS

Your challenge should be grounded in curiosity, problem-solving and creativity. Here's some challenge prompts that will instantly engage your students

- Build an unsinkable boat.
- Create a piece of furniture without any attachments.
- Create a sculpture that makes music in the wind.
- What problem can you solve using just the materials on this table?
- Design a shoe inspired by nature.
- How might you use this in various habitats?



CONNECTIONS

Framing your challenge with naturally-aligned processes creates a meaningful experience. Here's some sample alignments that may help you get started

- Engineering Design Process
- Elements of Art, Music, Theater, Design or Dance
- Mathematical Practices
- Artists' Habits of Mind
- Scientific Method
- The Creative Process
- ISTE Standards
- Media Arts Standards