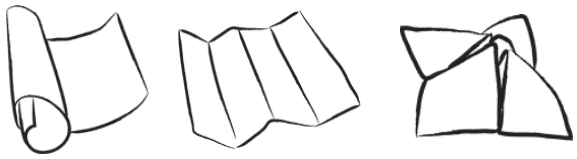
PLAY

TRANSFORM MATERIAL



FACILITATOR GUIDE
GRADES: 6-12
TIME: 30 minutes
MATERIALS: a single type of recycled material, scissors, tape or other adhesive

Designers take time to **play** and explore new ideas and materials, even when they're not sure what they want to create!

PROCESS

1. CHOOSE ONE MATERIAL

Students may work with one single material, plus scissors and adhesive. You may select one material for your whole class. Whatever there is a lot of or easily recycled and cleaned is great!

Examples: aluminum foil, pipe cleaners, paper, straws, tape, sticks, paper clips, cardboard

2. TRANSFORM THE MATERIAL

Challenge students to create an object out of their material. Set a timer for 20 minutes, and encourage them to experiment and see what the material can do. Remind them that it's ok if their ideas don't work out yet, the goal is to investigate the material properties and practice experimenting. You can also ask students to consider:

- What forms can you easily build out of this material?
- Do you need to change your design because of material constraints?

3. REFLECT AND DISCUSS

In pairs or as a class, discuss:

- How did the materials you chose influence the shape or form of your design?
- What were some strengths or limitations of this material?
- If we did this again, what else would you try?

SCAFFOLDING

- **Adapt Material:** It might make sense for your group to begin with a material that is easier to manipulate. You can introduce material students are less familiar with over time.
- Similarly, you could remove tools like scissors and score cardboard instead, or provide pre-cut tape on paper plates to make it easier to grab.

EXTENSIONS

- Introduce new materials each month this way (i.e, 'Material of the Month').
- Students can share out their work and ask for feedback from peers. Ask students to jot down relevant feedback and return to their work. What changes?
- Create mystery bags for groups of students with a set of materials, and challenge them to build something with it.

LEARNING STANDARDS

ELA (CCSS)

- Grades 6–12: CCSS.ELA-LITERACY.SL.6.5; SL.7.5; SL.8.5; SL.9-10.5; SL.11-12.5 — use visual displays, sketches, or models to clarify ideas
- Grades 6–8, 9–10, 11–12: CCSS.ELA-LITERACY.WHST.6-8.5; WHST.9-10.5; WHST.11-12.5 — strengthen work through planning, revising, editing, or trying a new approach

Visual Arts (National Core Arts Standards)

- Grade 6: VA:Cr2.1.6.a; VA:Cr2.2.6.a; VA:Cr3.1.6.a — try new materials/methods, use tools responsibly, and reflect on revisions
- Grade 7: VA:Cr2.1.7.a; VA:Cr2.2.7.a; VA:Cr3.1.7.a — persist with materials/methods, demonstrate care, and refine work through reflection
- Grade 8: VA:Cr2.1.8.a; VA:Cr2.2.8.a; VA:Cr3.1.8.a — experiment, take creative risks, use tools safely, and revise based on criteria
- High School Proficient: VA:Cr2.1.HSI.a; VA:Cr2.2.HSI.a; VA:Cr3.1.HSI.a — make without a fixed final plan, use materials responsibly, and plan revisions
- High School Accomplished: VA:Cr2.1.HSII.a; VA:Cr2.2.HSII.a; VA:Cr3.1.HSII.a — practice through experimentation, consider material impacts, and refine through critique
- High School Advanced: VA:Cr2.1.HSIII.a; VA:Cr2.2.HSIII.a; VA:Cr3.1.HSIII.a — plan and make multiple works, work safely/ethically with materials, and revise/refine toward a design vision