



GRADES: 2–5

DIFFICULTY: ● ○ ○

TIME NEEDED: 45–60 mins

PROJECT OVERVIEW

Create a symbol that depicts a unique characteristic of your state.

PROJECT SEQUENCE

DREAM

1. Ask students to brainstorm a list of at least five things that make their state unique. For instance, Colorado symbols may include mountains, a ski lift, a mountain bike, sunshine, gold, etc.

DESIGN

2. Ask students to choose one idea from their list. This is what they will base their symbol design on.
3. Then, have students complete a sketch of their state symbol. This sketch will include their basic idea as well as the materials they will use to build the structure.

MAKE

4. Have students start building their state symbols.
5. Have students test and modify their designs as needed. Remind them to update their sketches as they make modifications.

SHARE

6. Ask students to share their state symbols and to explain how and why they built what they did.

REFLECT

7. Have students reflect on what they learned by answering the reflection questions in a group or in a notebook.

SUGGESTED MATERIALS

- K'NEX
- Strictly Briks®
- Makedo™
- Strawbees®
- Scissors
- Glue and tape
- Cardboard and other craft supplies
- Copies of the student guide (one per student or group)

TEACHER TIPS

1. Determine how you will manage the materials.

- ◆ Will students have free rein to choose the types and amount they want?
- ◆ Will you limit building materials? If yes, how?
- Consider student frustration.
 - ◆ How can you support students who are struggling as well as students who are succeeding while working on this project?

2. Think about student grouping.

- Do you want students to complete this challenge independently or in teams?
- If students work in teams, how will you ensure they share the workload and responsibilities?
 - ◆ Will students choose their teams, or will you select the teams yourself?

3. Consider how students will reflect and communicate.

- How will you facilitate communication between students?
 - ◆ Will they share daily reflections?
 - ◆ Will they give one another feedback?
 - ◆ Will they have time to reflect on what they've shared with other students or teams?
 - ◆ Can students comment on their classmates' projects or provide constructive feedback?

4. Be on the lookout for students who jump into iteration instead of planning ahead of time.

- This will also be important as they prototype, test, and modify. It is important that students track the changes they make and keep their sketches up to date.

EXTENSION ACTIVITIES

1. Have students make their symbols interactive. This can be done by incorporating movement, sound, or light.
 - Suggested materials include K'NEX motors, Scratch, Makey Makey, and littleBits™.
2. Assign students a second state symbol to create.
 - Start by having them conduct more research.
3. Connect to language arts:
 - Ask students to write a report that describes the unique feature they chose for the symbol of their state.