



GRADES: 6–8

DIFFICULTY: ● ○ ○

TIME NEEDED: 45–90 mins

PROJECT OVERVIEW

Create an interactive map of an important route, area, or battle from history.

PROJECT SEQUENCE

DREAM

1. Ask students to identify a specific route or land or battle area from a historical period that interests them. Examples include the Lewis and Clark Expedition, the Civil War, Columbus' voyage, the Trail of Tears, etc.

DESIGN

2. Instruct students to complete rough sketches of their maps (of their chosen routes or areas) on pieces of paper.
3. Then have students identify the places where they would like to incorporate interactive components, such as lights and sound.

MAKE

4. Have students create their maps using large pieces of cardboard or poster board for the basic structure. Ask them to include at least three areas on their maps that will interact with viewers.
5. Instruct students to test their maps, make modifications, and update their sketches as needed.

SHARE

6. Have students share and explain their maps in a class presentation, in groups, or with a partner.

REFLECT

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

SUGGESTED MATERIALS

- Large cardboard pieces or poster board
- Buttons
- Sequins
- Yarn
- Markers or crayons
- Scissors
- Tape or glue
- Other craft supplies if desired
- Light and soundmaker platforms such as littleBits™, Snap Circuits®, Squishy Circuits®, Makey Makey®, SAM Labs, etc.)
- Wire, copper tape, batteries, and LED lights
- Copies of the student guide (one per student or group)

TEACHER TIPS

1. For this project, items that allow students to create buttons that trigger lights, sounds, or other outputs are a must. Snap Circuits, LEDs, littleBits, or even Squishy Circuits can be used. Consider adding Makey Makey and Scratch if you want to give students the option of narrating various parts of their interactive map (see the “Extension Activities” section to the right for resources).
2. **Think about material distribution.**
 - Can students take supplies as needed?
 - Will you limit what they can and cannot use?
 - Will you set up workstations for each student, or take a centers approach?
3. **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?

4. 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?

EXTENSION ACTIVITIES

1. Have students make their maps even more interactive by linking Makey Makey to the computer program Scratch. For ideas and a how-to, follow this link: k12maker.mit.edu/uploads/9/7/5/8/97583140/makeymakey-scratch-handout.pdf
2. Encourage cross-curricular connections by having students draw their maps to scale; include map components, such as keys, a compass rose, and the correct symbols; or write (and possibly record) a short report on the historical importance of the map.
3. Allow students to work together to create a larger map that includes more components of their chosen topic.