



GRADES: 3rd–8th

DIFFICULTY: ● ○ ○

TIME NEEDED: 30–60 mins

PROJECT OVERVIEW

Re-create a famous invention that has the ability to perform at least some component of the original invention.

PROJECT SEQUENCE

DREAM

1. Have students brainstorm famous inventions and draw three ideas.
 - b. If necessary, they may research famous inventions that appeal to them before making their selection.

DESIGN

2. Ask students to pick their favorite idea and decide what it will do and determine what materials they will use to build their functioning invention.
3. Have them sketch their invention model.
 - a. Make sure they label the materials they are using for structure and movement.
 - b. Have students list the materials they will use in the recording section.

MAKE

4. Allow students to collect materials and begin building the model.
5. After 10–15 minutes of building, ask students to pause and evaluate their design.
6. Have them test and modify as needed. Remind them to update their sketch pages as they make modifications.

SHARE

7. Have students share what they learned with their group, partner, or class.

REFLECT

8. Ask students to answer the final questions and share them in a group or by writing a reflection

SUGGESTED MATERIALS

- Scissors
- Cardboard
- Makedo®
- Tape
- Crayons or markers
- Assorted recycled materials
- Copies of the student guide (one per student or group)

TEACHER TIPS

1. Due to this project's historical emphasis, you may want to take a week or so to teach your students about some of the most popular inventions before they start building.
2. Display pictures of inventions for students to view while they are working. Since some inventions have evolved over the years, consider finding pictures of early prototypes for students to reference.
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. 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. Challenge students to brainstorm ways they can improve their invention.
2. Encourage students to build an invention of their own.
3. Have students research the man or woman who created the invention they chose to re-create.