4 STEAM LESSONS
FOR ELEMENTARY STUDENTS

1 DESIGN THINKING INTRODUCTION

Introduce the 6 steps of design thinking with various challenges to match each step:

- **IDENTIFY:** List an everyday problem they want to solve.
- **EMPATHIZE:** Determine who the user of the solution would be.
- **DEFINE:** Write the full scope of the problem.
- **IDEATE:** Brainstorm multiple ideas to solve the problem.
- **PROTOTYPE:** Start building the idea.
- **TEST:** Determine if the prototype worked. Add any additions and fix any errors.

2 BUILDING EMPATHY

Give students a Lego mini-figure to "interview."

They must determine who they are, what their problem might be, and how they can build a solution to solve the mini-figure's problem.

3 CODING AND COMPUTER SCIENCE

Teach the programming concept of looping (repeated instructions) through an unplugged dance activity.

Students form pairs and create a dance by coming up with a sequence of steps (an algorithm). This is a great introduction to algorithms, coding, and programming.

4 ROBOTICS

Hold a robotics competition. Teach students how to program and code the robots, which brings coding to life in a team format.

MILTON HERSHEY SCHOOL
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