

### ENGAGE (5 - 10 min.)

- Review the expectations of working in the outdoor classroom.
- Ask students to name some of the shapes they see in the garden.

### EXPLORE (10 min.)

- Send students out to look at the shapes of different types of leaves. Ask students to each bring back one leaf to the central gathering area (encourage leaves to be picked up off the ground or model how to gently remove one leaf from a plant without causing damage).

### EXPLAIN (10 min.)

- Have students compare their leaves with the people near them. How are they alike? How are they different?
- If none of the students mention this, point out that many of the leaves they chose can be folded over to match each side (a mirror image). If students are not familiar with this already, introduce the term *symmetry*, explaining that shapes that are symmetrical can be folded over a central line and match.
- Ask students to determine if the leaf they are holding is symmetrical or not.
- Guide students to set up their journals horizontally with two columns labeled as *symmetrical* and *asymmetrical*.

### ELABORATE (20 min.)

- Give students time to move around the garden collecting leaves and taping them under the correct column in their journal. If they are symmetrical, they should mark the line of symmetry with their pencil.

### EVALUATE (10 min.)

- Give students some time to share their journals with each other.
- Hold up a few other objects from the garden other than leaves. Are they symmetrical or asymmetrical?

#### **Grade**

3<sup>rd</sup> – 4<sup>th</sup> grade

#### **Timeframe**

1 class period

#### **Materials**

- Student journals/pencils
- Clear packaging tape (tear by hand)

### OBJECTIVES

#### **Math**

3.6 C classify and sort two- and three-dimensional figures, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language

4.6 B identify and draw one or more lines of symmetry, if they exist, for a two-dimensional figure