SYMMETRY IN NATURE

**Time:** 30 minutes
Age recommendation: K-3rd
Supplies:
- nature objects such as leaves of various sizes/colors
- white paper
- drawing utensils
- scissors
- glue stick

INSTRUCTIONS

- Gather large symmetrical leaves of different varieties. Carefully cut each leaf in half down the middle. You can also collect other symmetrical objects such as rocks, sticks or flowers. Just make sure the objects you find are on the ground and no longer living.
- What do you already know about symmetry? What does it mean when something is symmetrical? Can you think of something symmetrical in nature? Check out page 2 if you would like to review what symmetry is.
- Choose one leaf half and hold it up. Can you visualize what the missing half looks like?
- Use a glue stick to glue the leaf half onto a white piece of paper. It may work best to apply the glue to the paper and press the leaf down (rather than trying to apply glue to the leaf).
- Use pencils, pens, crayons, or markers to draw on the paper and try your best to complete the missing half of the leaf.
- After you have tried mirroring the original leaf half, try it again with another leaf half. Only this time, try to make the second half completely different than the original. How wacky can this leaf look? Be imaginative and create a unique leaf!

FURTHER INVESTIGATION

- What other natural objects can you think of that have symmetry?
- How do humans use symmetry in design? Take a walk and notice how we use it in architecture and landscaping.
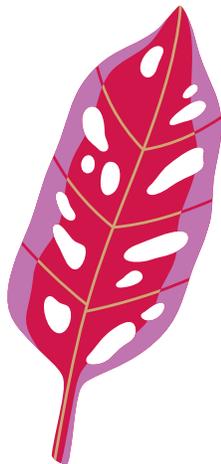
WHAT IS SYMMETRY?

There are many different kids of symmetry, but we are going to practice the most simple kind today. This symmetry is when a shape or object has two sides that are completely the same. Another way to say this is that one side is a reflection of the other side. That is why we call this kind of symmetry: reflective symmetry.

Look at the below shapes. The line drawn down the middle of each shape is that shape's line of symmetry. Notice how the part of the shape on one side of the line is the same as the part on the other side. Some shapes have more than one line of symmetry. Today we only need to find one line, though.
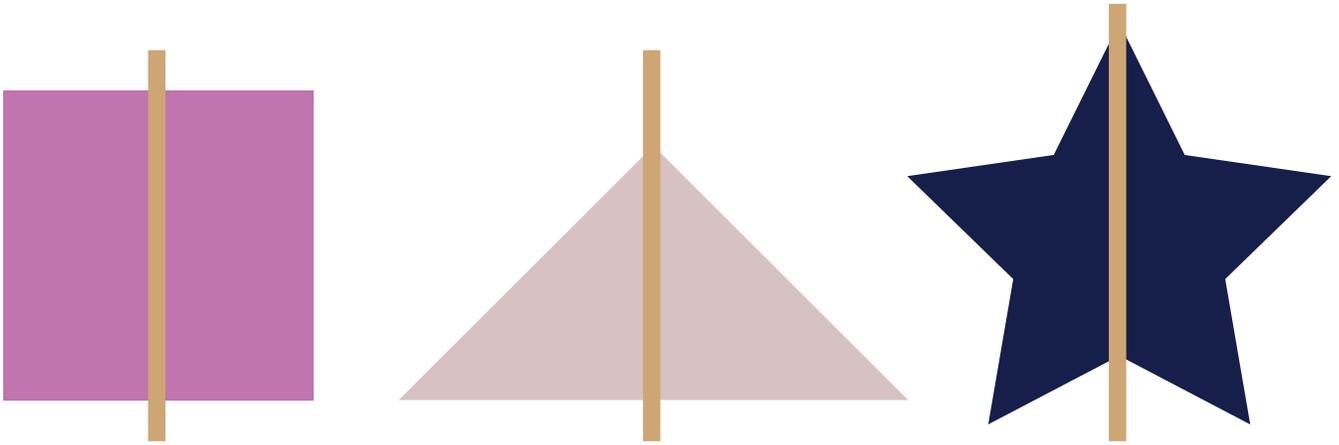
Practice by drawing the line of symmetry on the following objects.