

**Contributor:** Cynthia L. Greer **Grade Level:** Kindergarten

**1. Identify the standards to be addressed:**

- Science & Engineering Practices: Analyzing and Interpreting Data  
Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions.
- K.MD.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
- K.MD.3: Classify objects into given categories; count the number of objects in each category and sort the categories by

**2. Statement of the objective and lesson outcomes:**

- The children will be introduced to the term "symmetry" and the term "line of symmetry."
- The students will be able to fold a circle, a heart-shape, and a star-shape in half to show two equal sides, and to point to the line of symmetry.
- The students will be able to draw a line of symmetry on a given drawn object.

**3. Materials, resources, and technology to be used by teacher/students:**

- Pictures of real-life objects which show two equal sides after a line of symmetry is drawn.
- Circle shape, Heart shape, and Star shape for each student
- Black line paper for each student with items on which the student will practice drawing a line of symmetry.
- Small student book for each student to practice line of symmetry, and to complete symmetrical objects.

**4. Introduction of the topic:**

See following pages.

**5. Procedure for instruction:**

See following pages.

**6. Lesson closure:**

See following pages.

**7. Assessment of Understanding:**

See following pages.

## Symmetry & Line of Symmetry

Introduction:

Butterflies have it. *Show picture.*

Eyeglasses have it. *Show picture.*

Forks have it. *Show picture.*

What is it?

---

You can see it in the yard. *Show leaf.*

You can see it on a plate. *Show cupcake.*

You can see it in the sky. *Show kite.*

What is it?

-----

Direct Instruction:

Today we are going to look at and work with SYMMETRY.

If you can fold an object in half so that both sides are exactly the same, it has symmetry. Kids repeat the word.

*Fold a circle*

---

If each half is the same as the other, it has symmetry. Kids repeat the word. *Show baby face.*

---

If you can draw a line through the middle, it has symmetry. Kids repeat the word. *Show butterfly.*

---

Some dogs and some cats have symmetry. One half looks like the other half. *Show the dog and the cat.*

If you draw a line down the middle, the line is called the line of symmetry. *Show the dog and the cat with lines.*

---

Your body has symmetry, too!

*Need volunteer.*

Mrs. Hernandez holds a yard stick to show half.

One arm on one side, one \_\_\_\_ on the other side ... *Repeat*

One leg on one side, one \_\_\_\_ on the other side ... *Repeat*

One ear on one side, one \_\_\_\_ on the other side ... *Repeat*

What else? *Volunteers answer*

---

Symmetry is all around us.

*Show Valentine heart*

*Show chair*

*Show car*

-----

Guided Practice:

Now we are going to work with symmetry.

1. Review Rules
2. Pass out little shapes; circle, heart, star
3. *Show kids how to line up edges. Fold. 3 times.*
4. They do it, and share with neighbor.

---

5. Pass out page with pictures. (Cynthia L. Greer, page 6)
6. *Show kids how to draw a line of symmetry.*
7. Kids use a yellow crayon. They show Mrs. Hernandez.

---

8. Pass out triangle paper. (Cynthia L. Greer, page 7)
9. *Show kids how to complete the triangle.*
10. Kids use a pencil. They share with neighbor.
11. Find the line of symmetry, and share with your neighbor.

## Review:

What was the word we learned today? *Symmetry*

Meaning repeated. If both sides are exactly the same, the object has symmetry. *Repeat after me. If both sides are exactly the same, the object has symmetry.*

---

Which one has symmetry? *Show starfish & fiddler crab*

Which one has symmetry? *Show airplane & house*

---

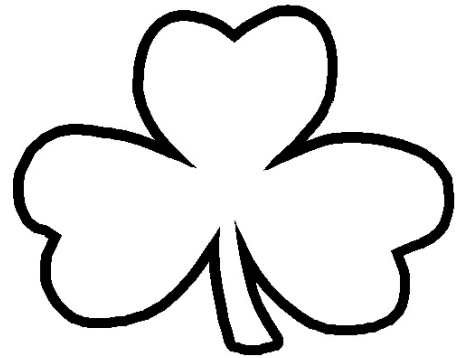
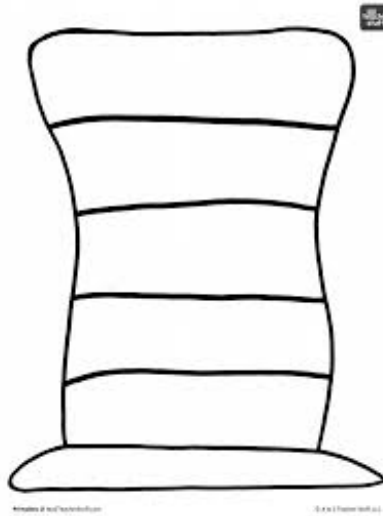
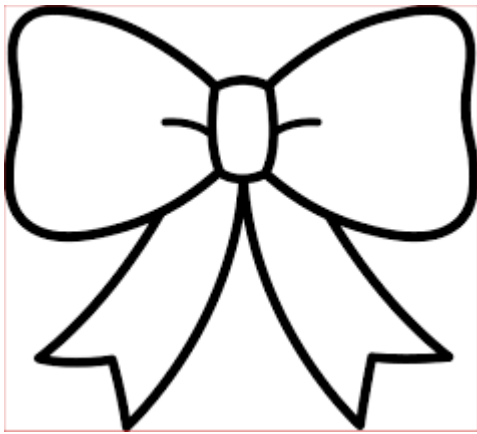
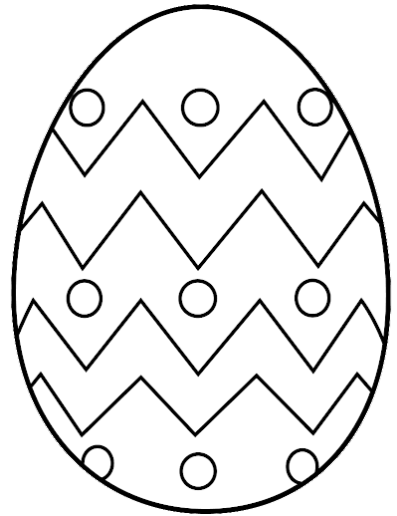
## Independent Work:

*Show little book.* (Cynthia L. Greer, page 8)

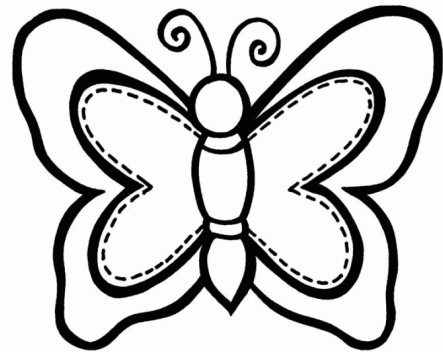
You each get a little symmetry book to work on when Mrs. Hernandez says you have some free time.

And *show the playdough.*

You each get a little tub of playdough to practice making shapes and cutting them in half.

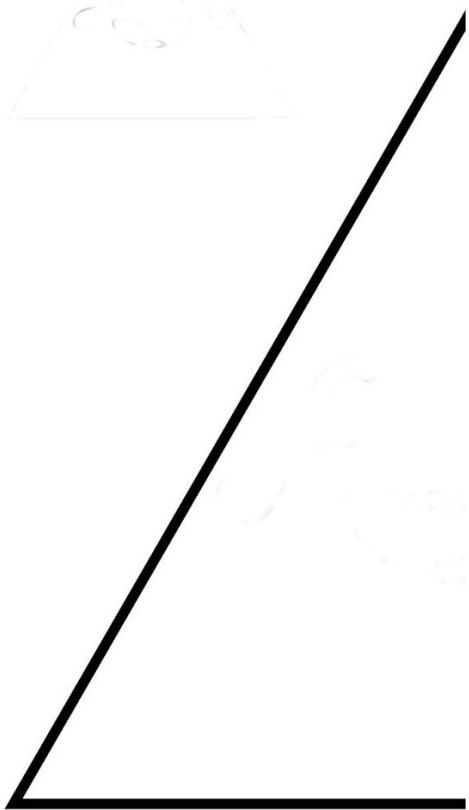
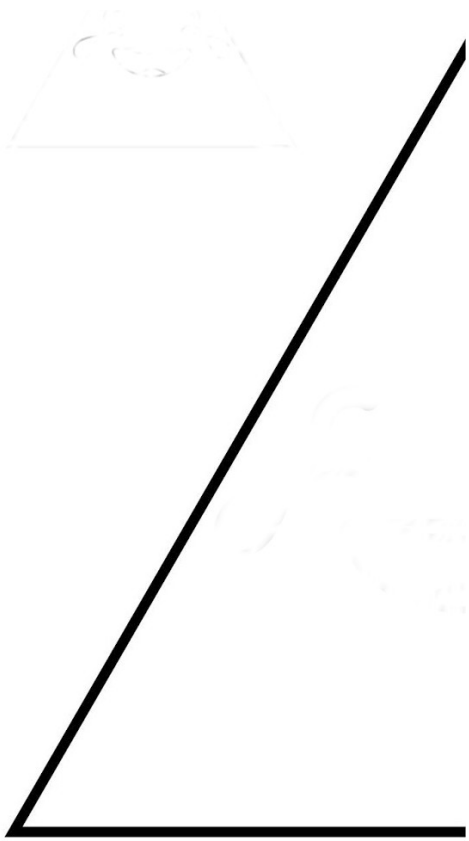


Spring Symmetry  
Use a symmetrical design pattern to create a unique butterfly.



name \_\_\_\_\_

page 6



name \_\_\_\_\_