

Lesson Plan Template

Date: _____

Grade: 4	Subject: Math-Geometry
Materials: Magazines or printed pictures, glue, large white paper, sharpies or markers	Technology Needed:
Instructional Strategies: <input type="checkbox"/> Direct instruction <input type="checkbox"/> Guided practice <input type="checkbox"/> Socratic Seminar <input type="checkbox"/> Learning Centers <input type="checkbox"/> Lecture <input type="checkbox"/> Technology integration <input type="checkbox"/> Other (list) <input type="checkbox"/> Peer teaching/collaboration/cooperative learning <input type="checkbox"/> Visuals/Graphic organizers <input type="checkbox"/> PBL <input type="checkbox"/> Discussion/Debate <input type="checkbox"/> Modeling	Guided Practices and Concrete Application: <input type="checkbox"/> Large group activity <input type="checkbox"/> Independent activity <input type="checkbox"/> Pairing/collaboration <input type="checkbox"/> Simulations/Scenarios <input type="checkbox"/> Other (list) Explain: <input type="checkbox"/> Hands-on <input type="checkbox"/> Technology integration <input type="checkbox"/> Imitation/Repeat/Mimic
Standard(s) 4.G.3 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures. Draw lines of symmetry	Differentiation Below Proficiency: peer support and instructional aide as needed. May fold the cut out pictures to see line of symmetry. Above Proficiency: can find more than one line or may identify diagonal lines of symmetry. Approaching/Emerging Proficiency: need to find at least one line of symmetry in each object. Modalities/Learning Preferences: <ul style="list-style-type: none"> • Visual: • Auditory: • Kinesthetic: • Tactile:
Objective(s). By the end of the lesson, students will be able to identify lines of symmetry in everyday objects by cutting out pictures and drawing at least one line of symmetry on each picture with a partner.	Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) Students are expected to work with their desk partners and participate in finding pictures in the magazines. If finished early, students will be asked to identify if the line of symmetry is vertical or horizontal.
Classroom Management- (grouping(s), movement/transitions, etc.) Students will stay seated for direct instruction then will work with their desk partners to find lines of symmetry. Each student will use a different colored marker to mark the line(s) of symmetry.	(This content is merged into the Behavior Expectations cell above for better readability)
Minutes	Procedures
1	Set-up/Prep: Paper, glue, magazines, and markers set out for students to grab.
1-2	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) Show picture of the Taj Mahal. “Look at this picture. What do you notice?” “This is the Taj Mahal in India. It is a mausoleum, or tomb, that was built to look exactly the same on both sides. They built the Taj Mahal symmetrical.”
5-10	Explain: (concepts, procedures, vocabulary, etc.) “A shape or object is symmetrical if it can be folded on a line so that it is the same on both sides.” Show examples on poster board. “The line we use to fold the shape is called the line of symmetry. It divides a shape into two parts that are the same size and shape.” Show example. “Symmetry means having an exact match in size, shape, and arrangement of parts on opposite parts of a line. Some shapes have only one line of symmetry, like this penguin, and some shapes have more than one like this rectangle. There are also two different types of symmetry that we will focus on today- vertical and horizontal.” Show examples. “Look at this picture of Baby Yoda, he has no symmetry. His hands would have symmetry, and ears big ears are the same on each side along with his eyes and wrinkles, but because of this part of his coat, if we drew a line of symmetry down the middle of his body, this part of his coat would not be the same on each side. So, he has no symmetry in this picture.” “This butterfly has a vertical line of symmetry, because if we drew a line down the middle of the butterfly, it would be the exact same on both sides.” “This airplane has a horizontal line of symmetry, because if I folded it in half this way, it would be the same on the top and bottom. Where else can we find lines of symmetry?” “Many capital letters in our alphabet have lines of symmetry. Be careful though, some figures may look like they are symmetrical when they aren’t. When a figure is folded on a line of symmetry, the two parts must be an exact match.” Show letter Z.

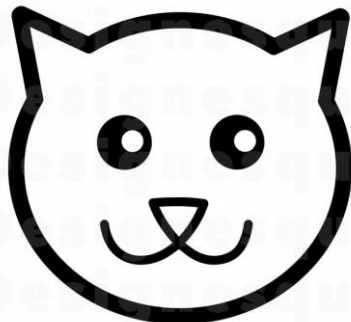
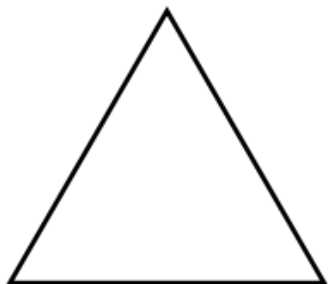
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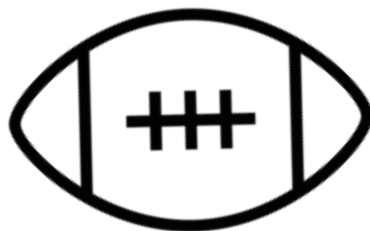
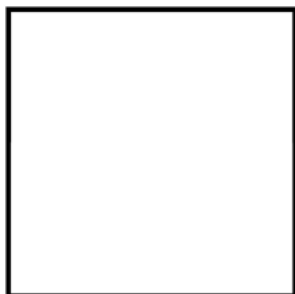
	<p>“Now you are going to work with your desk partners on finding lines of symmetry in these magazines. When you find an object that is symmetrical, cut it out and glue it on to your poster. Then you will take a marker and draw the line of symmetry.”</p> <p>“Each of you will need a different colored marker when you draw the line of symmetry, so I can see which objects you found in your group. I suggest using a ruler or any other straight edge to draw the line of symmetry.”</p> <p>“Each person in your group needs to find at least one line of symmetry, but if you find an object with more than one line of symmetry, identify those lines too!”</p>	
10-20	<p>Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)</p> <p><i>Separate students into pairs or groups of three and give each group a magazine or two.</i></p> <p><i>Monitor student progress and aid when needed.</i></p>	
3-5	<p>Review (wrap up and transition to next activity):</p> <p>“What objects did you find? Can you think of any other objects with a line of symmetry?”</p> <p><i>Lead brief discussion and collect posters.</i></p> <p><i>Students have snack and story time.</i></p>	
<p>Formative Assessment: (linked to objectives, during learning)</p> <ul style="list-style-type: none"> Progress monitoring throughout lesson (how can you document your student’s learning?) <p>Students completed posters of objects with at least one line of symmetry.</p>		<p>Summative Assessment (linked back to objectives, END of learning)</p> <p>Students will complete a brief quiz that covers symmetry material (attached below.)</p>
<p>Reflection (What went well? What did the students learn? How do you know? What changes would you make?):</p> <p>The assessment after the lesson later in the week showed that the students mostly understood lines of symmetry. Students that are above proficiency found more than one line of symmetry in some shapes, while other students found one (such as the triangle). Below proficiency students needed more support as expected and were encouraged to fold the objects they found to see how it matches on each side. I found that it was best to have students work in pairs rather than a small group to find the objects with symmetry, as they were less likely to participate with more than one partner.</p>		

Symmetry

1. Draw the line(s) of symmetry in each object below.



2. Circle how many lines of symmetry are in the shapes below.



- a. 2
- b. 6
- c. 3
- d. 4

- a. 0
- b. 2
- c. 1
- d. 4

- a. 4
- b. 2
- c. 0
- d. 1

3. Draw a shape with a vertical line of symmetry, and a shape with a horizontal line of symmetry.



symmetry rubric.pdf

Rubric: