LESSON PLAN TEMPLATE – C&T 290

Group Members: Taylor McLean, KP Preut, Monique Vieux
Date Lesson will be Taught: 11/2/22
Host Teacher: Length of Lesson: Ms.Edmonds
Grade Level: 5th grade science
School: New York Elementary

LESSON OBJECTIVES (Write in SWBAT format)
Students will be able to use mirrors to identify lines of symmetry.

ALIGNED STANDARDS (Provide both abbreviation and text of standard)
KDSE Math Standard: Geometry 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 and draw lines of symmetry.”

NECESSARY MATERIALS (Attach any handouts to the end of this lesson plan)
● Mirrors ● Writing utensil ● Paper ● Expo markers ● Printed pictures of shapes

SAFETY AND PRECAUTIONS
● Be careful with sharp edges of mirror ● Be respectful - no throwing materials

ENGAGE	Estimated Time: 3 mins
What the teacher does and what the students will be directed to do:	Probing questions the teacher will ask the students. What questions will guide this part of the lesson? *How might the students answer (in italics)?*
-Teacher will pass out the half heart image to the students, then explain safety precautions with the students. Then the teacher will pass out the	Ask: What happens when you put a mirror up to this picture? *Potential answers:*

mirrors. -Teacher will give each group an image and a mirror, and ask what happens when you place a mirror, perpendicular, onto the line of symmetry of the image.	● *You see the full image* ● *It reflects the other half of the image*

EXPLORE	Estimated Time: 9 mins
What the teacher does and what the students will be directed to do:	Critical questions the teacher will ask the students. What questions will guide this part of the lesson? *How might the students answer?*
-Teacher directs students to get out a writing utensil and passes out pieces of paper. (This can also be done on individual white boards if available). Teacher directs students to draw part of a triangle, so that when the mirror is placed up to it, a full triangle is made. -When students have accomplished the triangle drawing, they will be directed to create their own drawings that create a full, symmetrical image when a mirror is placed up to it. -Students will then be invited to come up to the large white board to collaborate with each other and share their drawings. -Students will go back to their seats and be directed to either put their papers away or recycle them.	How can you use a mirror to create a symmetrical image? *Placing a mirror on an image in a certain way can make a full image.*

EXPLAIN	Estimated Time: 9 mins
What the teacher does and what the students will be directed to do:	Critical questions the teacher will ask the students. What questions will guide this part of the lesson? *How might the students answer?*
-Teacher asks, “What would you call the place where the image reflects?” and write down students' answers on the board. -If a student is able to identify the term “lines of symmetry” the teacher will confirm this is the correct term. If students are not able to identify the term, the teacher will clarify that they are lines of symmetry.	What would you call the place where the image reflects? *Some students might know that the line is called a line of symmetry. Either way, we introduce new vocabulary.*

ELABORATE	Estimated Time: 18 mins
What the teacher does and what the students will be	Critical questions the teacher will ask the students.

directed to do:	What questions will guide this part of the lesson? *How might the students answer?*
-Teachers will hand out pictures of a triangle and ask students. -Students will be asked if an image can have more than one line of symmetry and to use the image of the triangle to help them answer this question. -Students will be asked to identify all of the lines of symmetry on the triangle. -Teacher will clarify how many lines of symmetry the triangle has if there are misconceptions. -Students will then be directed to put their papers away or recycle them.	Can an image have more than one line of symmetry? How do you know? How many lines of symmetry can you identify on these images? *Yes* *No* *I don't know* *I know because the mirror reflects the image.* *[Answers will vary depending on the images. But answers could include "One" or "Three", etc.]*

EVALUATE	Estimated Time for Summative Assessment: 14
Identify the strategies that will be used to evaluate student learning throughout the lesson.	
<u>Formative Assessments</u> - Group discussion - Questions - Observation <u>Summative Assessment</u> - Students will be given the summative assessment and asked to work on it on their own. The summative assessment will direct them to identify lines of symmetry for 3 images. - When students are done, the assessments will be collected. - The class will then go over the assessment and the teacher will clarify any misconceptions the students may have. - Teacher will collect the mirrors.	

SUMMATIVE ASSESSMENT

Include a copy of the summative assessment for this lesson here.

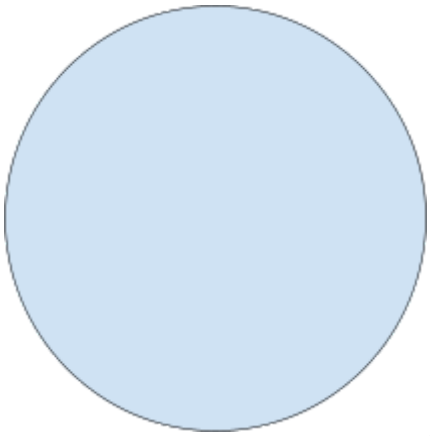
see next page

NAME:

DIRECTIONS: IDENTIFY HOW MANY LINES OF SYMMETRY YOU FIND ON THESE SHAPES.

_____Line(s) of symmetry

_____ Line(s) of symmetry



_____ Line(s) of symmetry

Grading rubric-

Square: 4 points possible, one point for each correct line of symmetry
Smiley face: 1 point possible, one point for each correct line of symmetry
Circle: 3 points possible, but graded out of two. One point for correctly identifying more than one line of symmetry. Two points for identifying 5 or more lines of symmetry. One extra point for identifying that there are infinite.