

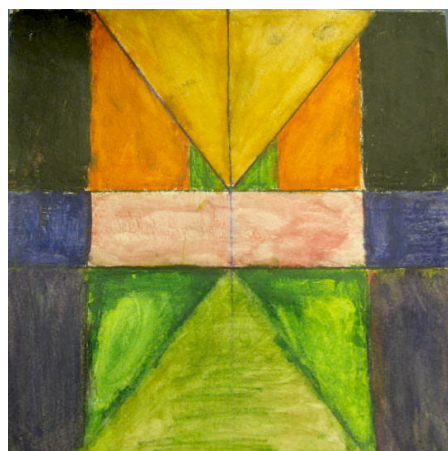
ARTS IMPACT—ARTS-INFUSED INSTITUTE LESSON PLAN (YR2-AEMDD)

LESSON TITLE: Reflections: Balancing Line, Shape and Color

Visual Art and Math Lesson

Artist-Mentor – Meredith Essex

Grade Level: Fifth Grade



Enduring Understanding

Repeated lines, shapes/figures and colors placed in reflection on either side of a line of symmetry can create visual balance.

Target: Creates a balanced non-objective composition.

Criteria: Locates shape/figure, line and color in reflection on either side of a line of symmetry.

Target: Combines lines to make a variety of angles and geometric shapes/2-D figures.

Criteria: Makes vertical, horizontal, and oblique lines forming right, acute and/or obtuse angles and polygons.

Target: Uses a broad palette.

Criteria: Combines transparent primary and secondary colors to create a wide range of colors (10+).

Geometry Search Journal

Target: Identifies and describes properties/attributes of geometric shapes/figures in self and other's art.

Criteria: Labels and describes congruency of sides, shape/figure names, and type of angles.

Teaching and Learning Strategies

Introduction to Arts-Infused Concepts through Classroom Activities:

Arts-Infused Concepts: Symmetry/Reflections; Properties/Attributes of polygons; Congruence, Right, Acute and Obtuse Angles; Shape; Balance

- ▣ Find lines of symmetry in different characters, letters, etc. using a chart/worksheet or white board.
- ▣ Find examples of symmetry in living things.
- ▣ Find and record polygons in symmetry in the classroom.
- ▣ Find and record parallel, perpendicular, vertical, horizontal, and diagonal lines in art.
- ▣ Uses ruler to measure.

1. Reviews concept of reflection through showing *Egg and Cross* by Michael Gregory. Introduces *Thicket* by Martin Puryear. *Prompts: We are going to combine concepts seen in two works of art: symmetry as seen in Egg and Cross and lines forming shapes/figures as seen in Thicket. Line, shape/figure and color placed in reflection on either side of a line of symmetry can create visual balance: Notice how symmetry makes Egg and Cross balanced. What kinds of line do we see in Thicket? (Oblique) What sorts of angles can we identify? If every place where a strip of wood intersects is considered a vertex, and the open spaces, are seen a straight-sided shape/figure, what are the names of the polygons we see here (rhombus, triangle)*
Student: Analyzes art.

2. Demonstrates organizing lines and shapes/figures in reflection. *Prompts: We are making non-objective (no recognizable object) art, so we are not concerned about our composition "looking like something". First I am using my ruler to measure and lightly divide my paper in half by drawing a line of symmetry from mid point at the top of the paper to mid point at the bottom of the paper. (4.5 inches on 9 inch by 9 inch watercolor paper). I am drawing a vertical, horizontal or oblique line on one side of my line of symmetry with a ruler, then drawing it's reflection on the other side. Notice how I am anchoring down the ruler—spreading my fingers out and pressing hard so that it does not slip around. I am using my ruler to draw every line that I make on this artwork. I am going to continue to draw lines in reflection, making sure that I have vertical, horizontal and diagonal lines. Color choices should be in reflection too. Some lines are parallel, some intersect, and some may be perpendicular. If we think of intersecting lines as the vertices of straight-sided shapes/figures, then what are some of the polygons and angles (right, acute, obtuse) that my lines have formed?*
Student: Observes demonstration

4. Guides creative process. *Prompts: Be strategic in drawing your lines: really note (or use measurement to mark) their location when you draw them in reflection on the other side of the line of symmetry. Make sure that you have created some shapes/figures through the intersection of vertical, horizontal and diagonal/oblique lines—point to each kind of line.*
Student: Measures, draws line of symmetry; draws vertical, horizontal and diagonal/oblique lines.
Embedded Assessment: Criteria-based self-assessment

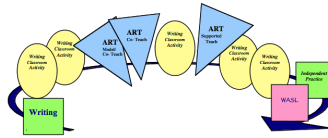
3. Demonstrates possibilities for using a broad color palette for the polygons in reflection. *Prompts: We will use many colors to fill the polygons in reflection that your lines have formed. Your job is to develop and use a broad palette: create as many colors as you can by layering or overlapping color. I am creating dark and light colors through pressing hard and pressing softly. You can create patterns of color also—as long as they are reflected on the other side of the line of symmetry. Ask yourself if you are constantly creating reflection and if shapes/figures are congruent—the same size, same shape/figure and the same color. Once you have filled all polygons, you are ready for water!*
Student: Observes demonstration.

5. Demonstrates techniques for using water-soluble colored pencils. *Prompts: I am softening colored pencil lines and shapes/figures using a barely wet brush. I control the amount of water on the brush by drying it off on a paper towel. I can also dab excess water off the surface of the paper as well using an up and down motion. Notice how just a tiny bit of water brightens and blends the color.*
Student: Observes demonstration.

6. Facilitates criteria-based reflection. Displays art on the board. *Prompts: Find a classmate's work of art and identify and draw three polygons that you see, and record in your Geometry Search Journal: What are their names and properties/attributes? What angles do you see: acute, obtuse, right—can you measure them? What shapes/figures are congruent? Count the number of colors that you used in your composition—share some of the techniques you developed to make new colors.*

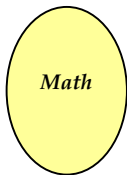
Student: Participates in critique.

Embedded Assessment: Criteria-based class critique; criteria-based peer and self assessment

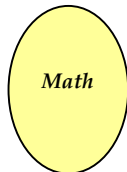


BEFORE next VISUAL ART lesson:

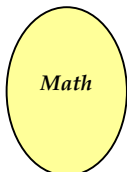
Math Centers



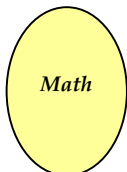
1. Organize leaves or textural shapes/figures under paper to make symmetrical rubbings with crayons.



2. Draw a polygon and challenge a partner to draw it exactly the same using ruler and protractor in their Geometry Search Journal.



3. Find polygons and symmetry in African or Native American art.



4. Find shapes in the classroom or on the playground and label shapes.

Independent Practice: Air draw it! Draw it on paper! Same number and length of sides—same angles—same size! Check for congruency on both sides of a line of symmetry.

Vocabulary	Materials and Community Resource	WA Essential Learnings & Frameworks
<p><u>Arts:</u> balance broad palette composition non-objective primary secondary transparent water-soluble colored pencils</p> <p><u>Arts Infused:</u> geometric shape diagonal horizontal parallel perpendicular symmetry vertical</p> <p><u>Math:</u> acute congruent oblique obtuse polygon reflection right side vertex</p>	<p>Museum Artworks: <i>Thicket</i>, by Martin Puryear <i>Egg and Cross</i>, by Michael Gregory</p> <p>Art Materials or Performance Materials: Geometry Search Journal rulers water soluble colored pencils watercolor paper: 9 x 9 in.</p> <p>paper towels small nylon brushes water containers</p>	<p><i>AEL 1.1 concepts:</i> geometric shape, line, broad color palette <i>AEL 1.1.2 principles of organization:</i> balance <i>AEL 1.2 skills and techniques:</i> drawing/painting <i>AEL 4.2 connections between arts and other content areas:</i> geometry</p> <p><i>MEL 1.3.4 geometric sense:</i> understands and applies single transformations using a translation (slide) or reflection (flip)</p> <p>Math State Frameworks <i>Grade 3:</i> describes and compares congruent 2D figures; draws a shape that is congruent to a given 2D shape <i>Grade 4:</i> solves problems involving congruence (creates a design made out of congruent shapes, simulates translations and reflections using objects; records results of a translation (slide) or reflection (flip), creates designs using translations (slides) or reflections (flips) <i>Grade 5:</i> draws congruent figures and shapes in multiple orientations using a transformation <i>Grade 5: 1.3.1</i> Describes a 2-dimensional shape and or figure using properties including number of sides, vertices, and types of angles. <i>Grade 5: 1.3.2</i> Draws, describes, and/or labels angles, quadrilaterals, parallel and/or perpendicular lines</p>

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LESSON TITLE: Reflections: Balancing Line, Shape and Color

ASSESSMENT WORKSHEET

Disciplines	VISUAL ART AND MATH	VISUAL ART AND MATH	VISUAL ART AND MATH	VISUAL ART	VISUAL ART AND MATH	Total 5
Concept	SYMMETRY	LINE: Direction	SHAPE	PALETTE: Broad	SHAPE : Properties /Attributes	
Student	Locates shape/figures, line and color in reflection on either side of a line of symmetry	Makes vertical, horizontal, and oblique lines	Forms right, acute and/or obtuse angles and polygons	Overlays transparent primary and secondary colors to create a wide range of colors (10+)	Labels in writing and describes congruency of sides, shape/figure names, and type of angles	
1.						
2.						
3.						
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27.						
28.						
Total						
Percentage						

Criteria-based Reflection Questions: (Note examples of student reflections.)

Self-Reflection: *What are the names and properties/attributes of your shapes? What angles do you see: acute, obtuse, right? What shapes/figures have congruent sides?*

Peer to Peer: *Check in with a partner who can hold your work up for you. Note the shapes/figures you emphasized with color. Note the shapes/figures you see in their art.*

Thoughts about Learning:

Which prompts best communicated concepts? Which lesson dynamics helped or hindered learning?

Lesson Logistics:

Which classroom management techniques supported learning?

Teacher: _____ Date: _____

ARTS IMPACT—ARTS-INFUSED LEARNING FAMILY LETTER

VISUAL ART AND MATH LESSON – Reflections: Balancing Line, Shape and Color

Dear Family:

Today your child participated in a **visual art and math** lesson.

- We looked at *Egg and Cross*, a work of art that is **balanced** or **symmetrical**. We also looked at *Thicket*, a **sculpture** composed of many **oblique lines** (diagonal, wooden strips). We noticed that the open spaces between lines were different **straight-sided shapes/figures—polygons**.
- We combined lines to make a variety of **angles** and geometric shapes/2-D figures and located them in balance on either side of a **line of symmetry**.
- We drew our **lines** using **watercolor pencils** and noted where our **intersecting lines** made straight-sided polygon shapes/figures. We emphasized the shapes/figures we made by adding layers of color using the pencils. By using a wet brush, we softened and blended the color. We used a **broad color palette**—exploring and making as many colors as we could.

You could look for symmetry/reflection in the world around you. Where do you most often see a line of symmetry/reflection? Machines, plants, animals, buildings?

Enduring Understanding

Repeated lines, shapes/figures and colors placed in reflection on either side of a line of symmetry can create visual balance.