



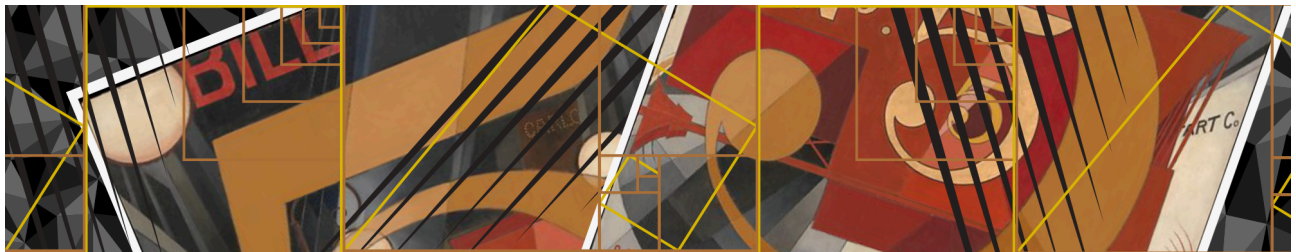
artsNOW

Integrated learning solutions

CREATING INSPIRED WORKS THROUGH ANGLES & PROPORTION

Grade Band: 6-8

Content Focus: Visual Arts & Math



LEARNING DESCRIPTION

In this lesson, students will analyze how the artist, Charles Demuth, uses angles and proportion in his artwork, *I Saw the Figure 5 in Gold*. By delving into the use of angles, proportion, emphasis, and ratios in Demuth's artwork, students will then apply these elements to create their own unique pieces of art, drawing inspiration from the style of the Precisionist art movement.

LEARNING TARGETS

Essential Questions	"I Can" Statements
How does Charles Demuth use angles and proportion in his artwork?	I can explain how Charles Demuth uses angles and proportion in his artwork.
How can I create an artwork inspired by Demuth using angles and proportion?	I can create artwork inspired by Demuth using angles and proportion.
How can I use proportion and color to create emphasis in my artwork?	I can use proportion and color to create emphasis in my artwork.



We bring learning to life.

How is the poem “The Great Figure”, related to Demuth’s artwork, *I Saw the Figure 5 in Gold*?

Students can explain how I used ratio, proportion, angles, color, value, and emphasis to create my artwork.

GEORGIA STANDARDS

Curriculum Standards	Arts Standards
<p>Grade 6 6.NR.4: Solve a variety of contextual problems involving ratios, unit rates, equivalent ratios, percentages, and conversions within measurement systems using proportional reasoning.</p> <p>Grade 7 7.PAR.4: Recognize proportional relationships in relevant, mathematical problems; represent, solve, and explain these relationships with tables, graphs, and equations. 7.GSR.5.2 Measure angles in whole number degrees using a protractor 7.GSR.5.3 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve equations for an unknown angle in a figure.</p> <p>Grade 8 8.PAR.4: Show and explain the connections between proportional and nonproportional relationships, lines, and linear equations; create and interpret graphical mathematical models and use the graphical, mathematical model to explain real phenomena represented in the graph.</p>	<p>Grade 6 VA6.CR.1 Visualize and generate ideas for creating works of art. VA6.CR.2 Choose from a range of materials and/or methods of traditional and contemporary artistic practices to plan and create works of art. VA6.CR.3 Engage in an array of processes, media, techniques, and/or technology through experimentation, practice, and persistence. VA6.CR.4 Incorporate formal and informal components to create works of art.</p> <p>Grade 7 VA7.CR.1 Visualize and generate ideas for creating works of art. VA7.CR.2 Choose from a range of materials and/or methods of traditional and contemporary artistic practices to plan and create works of art. VA7.CR.3 Engage in an array of processes, media, techniques, and/or technology through experimentation, practice, and persistence. VA7.CR.4 Incorporate formal and informal components to create works of art.</p> <p>Grade 8 VA8.CR.1 Visualize and generate ideas for creating works of art. VA8.CR.2 Choose from a range of materials and/or methods of traditional and contemporary artistic practices to plan and create works of art. VA8.CR.3 Engage in an array of processes, media, techniques, and/or technology through experimentation, practice, and persistence. VA8.CR.4 Incorporate formal and informal components to create works of art.</p>

SOUTH CAROLINA STANDARDS

Curriculum Standards	Arts Standards
----------------------	----------------



We bring learning to life.

Grade 6

6.RP.1 Interpret the concept of a ratio as the relationship between two quantities, including part to part and part to whole. 6.RP.2 Investigate relationships between ratios and rates.

6.RP.3 Apply the concepts of ratios and rates to solve real-world and mathematical problems.

Grade 7

7.RP.2 Identify and model proportional relationships given multiple representations, including tables, graphs, equations, diagrams, verbal descriptions, and real-world situations.

7.RP.3 Solve real-world and mathematical problems involving ratios and percentages using proportional reasoning

7.GM.5 Write equations to solve problems involving the relationships between angles formed by two intersecting lines, including supplementary, complementary, vertical, and adjacent

Grade 8

8.EE.5 Apply concepts of proportional relationships to real-world and mathematical situations.

8.GM.5 Extend and apply previous knowledge of angles to properties of triangles, similar figures, and parallel lines cut by a transversal.

Anchor Standard 1: I can use the elements and principles of art to create artwork.

Anchor Standard 2: I can use different materials, techniques, and processes to make art.

Anchor Standard 5: I can interpret (read) and evaluate the meaning of an artwork.

Anchor Standard 7: I can relate visual arts ideas to other arts disciplines, content areas, and careers.

KEY VOCABULARY

Content Vocabulary	Arts Vocabulary
<ul style="list-style-type: none"> ● <u>Angle</u> - A geometric figure formed by two rays (sides) with a common endpoint (vertex) ● <u>Acute angle</u> - An angle that measures less than 90 degrees ● <u>Obtuse angle</u> - An angle that measures more than 90 degrees 	<ul style="list-style-type: none"> ● <u>Precisionism</u> - An art movement of the 1920's that focused on creating very precise and controlled art; the artists in this movement focused on reducing objects to lines, shapes, and geometric structures ● <u>Composition</u> - How the artist uses the Elements of Art to create an artwork



We bring learning to life.

- Complementary angle - Two angles whose measures add up to 90 degrees
- Supplementary angle - Two angles whose measures add up to 180 degrees
- Proportional - The relationship between two variables that have the same ratio
- Ratio - A way of comparing two quantities or numbers by dividing one by the other; the relationship between two quantities, indicating how many times one quantity is present in relation to the other

- Proportion - How one thing relates to another in terms of size
- Emphasis - Where the artist draws the viewer's eye using visuals
- Contrast - Putting two things side by side that emphasize their differences, such as two colors across from each other on the color wheel like yellow and purple
- Value - One of the seven elements of art; the lightness or darkness of a color
- Shape - One of the seven elements of art; a two-dimensional object

MATERIALS

- 9x12 mixed media paper or cardstock (each student will need two sheets)
- Pencils
- Protractors
- Rulers
- Glue sticks
- Scissors
- Colored pencils
- Markers

INSTRUCTIONAL DESIGN

Opening/Activating Strategy

- Project the poem by William Carlos Williams, "The Great Figure":
*Among the rain
and lights
I saw the figure 5
in gold
on a red
firetruck
moving
tense
unheeded
to gong clangs
siren howls
and wheels rumbling
through the dark city*



We bring learning to life.

- Have students read the poem and respond with a quick drawing (5 minutes).
- In small groups, have students share what the poem made them think of and what they drew.
- Allow students to share out with the class.

Work Session

- Project [I Saw the Figure 5 in Gold by Charles Demuth](#). Tell students that Demuth painted this artwork as a tribute to his friend, the poet of “The Great Figure”, William Carlos Williams. He used the poem, “The Great Figure”, as inspiration for this artwork.
- Ask students where they see connections between the poem and the artwork.
- Tell students that the artist, Charles Demuth, was part of an art movement called Precisionism.
 - Precisionism was an art movement of the 1920’s that focused on creating very precise and controlled art; the artists in this movement focused on reducing objects to lines, shapes, and geometric structures.
- In their small groups, ask students to make observations about the painting that respond to the following questions:
 - What stands out in the artwork? How does Demuth make it stand out?
 - Answers could include responses like how he used color and size.
 - Tell students that when an artist draws the viewer’s attention to something, this is called emphasis.
 - Ask students where they see examples of angles in the artwork.
 - Ask students where they see Demuth using proportion in his artwork.
 - Students should identify the “5”.
- Explain to students that they will be using proportion and angles to create an artwork inspired by [I Saw the Figure 5 in Gold by Charles Demuth](#).
 - They will need to use proportion, angles, and emphasis in their artwork.
- Students should start by drawing a square or rectangle on mixed media paper or cardstock three times using a consistent ratio. For example, three rectangles could be 1x1.5, 2x3, and 4x6 inches. Students will then fill the rectangle with a letter or number such as the letter “L”. Show students how to use the edges of the square or rectangle to draw their letter or number. The letter or a number should be a shape, which is a 2D closed line. See [example](#).
- Students should then use markers to fully color in the three letters or numbers. Students will set this aside and work on the other portion of the artwork.
- Go back to [I Saw the Figure 5 in Gold](#). Ask students what they see in the background. They may say things like shades of black, white, and gray; diagonal lines; etc.
- Pass out a new sheet of mixed media paper.
- Give students a number of specific angles or requirements for angles (three angles that are less than 45 degrees, two angles between 70-80 degrees, five obtuse angles, an algebraic or linear equation to solve for specific angles, etc.).
 - Using these angles or requirements, students should fill their paper with intersecting lines like they see in [I Saw the Figure 5 in Gold](#). See [example](#).
- Next, using pencil or colored pencil, students will shade in each of the shapes that are created by the intersecting lines.
 - Tell students that they will be gluing their three letters or numbers on top of this paper, so they need to pick colors that will contrast with the ones they used to color



We bring learning to life.

- in their letters or numbers. Refer back to [I Saw the Figure 5 in Gold](#) and how Demuth does this with red and gold on a white, gray, and black background.
 - Show students how Demuth uses different shades of gray, white, and black in the shapes in the background of the art. This is called using different values. Students should also use different values in the background shapes of their art.
- When students are done, they should use a glue stick to glue their letters or numbers on their paper.

Closing/Reflection

- Students should give their artwork a relevant title.
- On the back of their artwork, they should explain how they used ratio, proportion, angles, color, and emphasis to create their work. They should be able to explain how they created emphasis using proportion and color.
- Students should then present their work to each other in groups of three to four students.

ASSESSMENTS

Formative

Teachers will assess students' understanding by observing students' discussion of the poem, "The Great Figure" and the artwork, *I Saw the Figure 5 in Gold*; students' ability to identify and explain ratios, proportion, and types of angles; and students' ability to correctly use a protractor to measure angles.

Summative

CHECKLIST

- Students can create an artwork that demonstrates their understanding of ratio, proportion, and angles.
- Students can explain how they used ratio, proportion, angles, color, value, and emphasis to create their work.

DIFFERENTIATION

Acceleration:

- ELA connection - Have students write a poem inspired by their artwork. Students should refer back to Williams' "The Great Figure", and Demuth's artwork, *I Saw the Figure 5 in Gold*.
- Have students do additional research on the [Precisionist art movement](#). Students should select a different artwork by another artist from this movement, such as Joseph Stella. Students should explain how the artist used angles, lines, color, value, and shapes in their artwork. Then, students should create their own artwork inspired by this artist. Suggested artworks by Stella include [Brooklyn Bridge](#), [Futurist Composition](#), [Old Brooklyn Bridge](#), and [By-Products Plants](#).

Remediation:

- Allow students to work in collaborative groups on a single artwork.
- Reduce the number/requirements for angles.



We bring learning to life.

- Allow students to use their rectangle as the object that shows proportion rather than turning the rectangle into a letter or number.

ADDITIONAL RESOURCES

- [I Saw the Figure 5 in Gold by Charles Demuth](#)
- [Charles Demuth - I Saw the Figure 5 in Gold - Metropolitan Museum of Art](#)
- [Charles Demuth - I Saw the Figure 5 in Gold - Khan Academy](#)
- [Precisionist art movement - Metropolitan Museum of Art](#)

**This integrated lesson provides differentiated ideas and activities for educators that are aligned to a sampling of standards. Standards referenced at the time of publishing may differ based on each state's adoption of new standards.*

Ideas contributed by: Katy Betts

Revised and copyright: May 2024 @ ArtsNOW



We bring learning to life.