

Grade Level: Fifth Grade

Question Stems (DOK or Bloom’s Question Stems):

What is unique about this piece of art? What characteristics of geometry do you notice in this piece of art? If you had to describe this piece of art with one word, what word would you use? What vocabulary from our geometry unit do you see in this piece of art?

https://lisathatcher.files.wordpress.com/2012/06/inspired_bei_mondrian_by_manshonyagger-d35kfou.jpg

STANDARDS (Academic and Arts):

Math Standards:

5.NBT.5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.

5.G.4 Classify two-dimensional figures in a hierarchy based on properties.

Visual Arts Standards:

6. Recognize roles, functions, and purposes of artists, works of art, and visual arts careers in cultures, times, and places. (HC, C)

11. Know how visual arts concepts and skills are integrated with knowledge in other subject areas for use in everyday life. (C)

I CAN(s): I can identify two-dimensional shapes based on their characteristics.

I can create a piece of artwork using polygons using inspiration from Piet Mondrian.

SMART Goals

Specific, Measurable, Attainable, Realistic, Time bound:

Students will create a piece of art using rulers and pencils on paper, then identify polygons within their work.

Materials:

Artwork by Piet Mondrian

Paper

Rulers

Crayons/Colored Pencils

Relevance or Hook:

What do art and math have to do with each other? How might what we are learning in math right now connect to art?

Delivery of Rigorous Instruction:

Direct Instruction (DI); Guided Practice (GP); Independent Practice (IP); Application (A)

DI: Discuss Mondrian’s artwork with students. Instruct and model how to begin their artwork – we are not focusing on rectangles but on polygons in general – students can be random and creative with their lines – the more “random” their work, the more unique it will be and the more interesting (irregular) polygons we will get! Review polygon vocabulary and characteristics – this will be necessary for them to remember when they are finished their artwork.

GP: Students will continue their artwork. When finished, students will begin identifying polygons in their artwork. In their table groups, students can collaborate with each other to confirm/refute their thinking in their artwork and do the same for their tablemates.

IP: Students will create a key for their artwork – each color will represent a different polygon (example – all right triangles will be red, all pentagons will be blue, etc).

A: Students will use their key to color their artwork. Some of their artwork can be white – those would be polygons they did not identify in their key.

Closure (CL):

What was our goal in this lesson? How were we able to connect math and art? How does your unique piece of art compare to the others at your table? How does it compare to Mondrian's?

Differentiated Instruction (DI):

Students will be seated in small groups to collaborate, 1-1 if needed

Check for Understanding (Describe the product that will demonstrate mastery of the standards.):

Student created artwork and key

Rubric

Category	4pts	3pts	2pts	1pt
Following Directions on Artwork	Student used ruler precisely to create only straight lines, students created a variety of shapes in their artwork	Student used ruler to create mostly straight lines, minor mistakes, a variety of shapes was created	Students used ruler but not all lines came out straight, multiple mistakes were made and attempted to be fixed	Student's lines are not straight, many mistakes were made and not fixed well, too few shapes are created
Artwork Key	Student's key is very neat and organized, uses a different color for each polygon	Student's key is generally neat and organized, uses a different color for each polygon	Student's key is disorganized and somewhat messy, however it can still be used to identify the polygons in their artwork	Student's key is disorganized and messy, not easily used to identify polygons in artwork
Polygon Identification	4 or more polygons are correctly identified	3 polygons are correctly identified	2 polygons are correctly identified	1 or fewer polygons are correctly identified
Participation and Use of Time	Participated in class discussion, used time wisely to complete the task	Some participation, time was used wisely	Minimal participation, time was not used wisely and work was not finished	No participation, caused disruption and/or did not complete the task