

Solve Me a Song- Lesson Four

Lesson Title: Geometry: Let's Form Shapes

Length: 50 minutes

Age Group: 2nd grade

Vocabulary: Sectional Form, Rondo Form, Strophic, Verse, Chorus (Refrain), Ritronello Bridge, Pre-chorus, Shapes: Circle, Square, Triangle, Rectangle, Diamond, Trapezoid, Pentagon, Parallelogram, Quadrilateral, Movement Map, Pathway, Levels, Cube, Cylinder

Materials Needed: Board to write Movement Map, copies of map incase those resources aren't available, CD track: Mahnahmahnah- The Muppets, One Direction- What Makes You Beautiful, Open Space, Journals

Standards – Art: Music

1. Singing, alone and with others, a varied repertoire of music
6. Listening to, analyzing, and describing music
7. Evaluating Music and Music Performances
8. Understanding relationships between music, the other arts, and disciplines outside the arts.

Standards - Content: Common Core –

2.G- Reason with shapes and their attributes

1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. CC.2.G.1

National:

5. Understands and applies basic and advanced properties of the concepts of geometry.
9. Understands the general nature and uses of mathematics

Standards- Dance: Standard 1- Performing- Identifying and demonstrating movement elements and skills in performing dance.

Standard 7- Interdisciplinary Connections- Making connections between dance and other disciplines

Learning Objectives: Performance Tasks for this lesson:

The Student Will:

<p><u>Cognitive</u> Understand the properties of regular and irregular polygons and three dimensional shapes. Students will be able to identify geometric shapes.</p>	<p><u>Affective</u> Work together groups of 4, groups of 3, and as a class. Follow directions and follow a map on the board.</p>	<p><u>Artistic</u> Understand sectional form and be able to identify variations and repetitions in music. They will learn how to identify form and learn some different types of musical form. Students will also move in a way that represents the changes in the music, but reinforces the math material.</p>
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Assessment Criteria for this lesson:

<p>Students will make a brainstorming list of polygons and the different types. Oral Quiz at beginning of class in a “Who am I” setting, listing properties and having students guess the shape. We will also have a class discussion about what makes a shape a triangle or a quadrilateral, and the differences between the different types; ex. Parallelogram v. rhombus, acute vs. obtuse, etc.</p>	<p>Self-assessment after the culminating activity about how the class worked together, how it was working with a group and things that they need to improve on.</p>	<p>From the start, the students will tell me when the music changes and we will talk through identifying form at the beginning of the target activity. We will start by identifying the sections by letter, but then replace it by shape names. Having the students know what each shape looks like will be exemplified through the movement activity. Students will also have to answer some questions about form on a worksheet after the activity.</p>
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Introduce the Lesson’s Target Learning

How will you introduce your lesson’s concept? Each student will get a piece of paper and I will ask them what shapes they know. We will talk about what a polygon is. POLYGON- another word for shape, Usually a plane figure, Two-dimensional with edges and vertices, while a three-dimensional shape has faces. We will then have a discussion about how to distinguish between the different shapes, which will lead into the day’s activity.

Why are you studying this? A whole section of the third grade section of the common core standards for mathematics includes geometry, and a huge part of that is the understanding of the sharing of attributes of certain shapes, and properties that distinguish them from one another as well. The activity will reinforce these properties in a way that will force the students to acknowledge the distinguishable qualities of each shape.

Integrated Activities:

Drills, Movement Warm-up, and Exploration Activity:

- WHO AM I Activity
 - After the list and discussion to introduce the topic, there will be papers covering shapes on the board.
 - I will give hints to the students in an oral quiz format, like 20 questions, until they guess what the shape is that I'm referring to.
 - They will have to raise their hand if they know, and not just shout out the answer.
 - We will go through until we get to every shape that we will be working with that day. (first polygons and then three-dimensional shapes)

(This part is optional, depending on time)

Target Activity:

- Start playing the song “Mahna Mahna” from the beginning, but just enough to get the point. Once the song is turned off, we will discuss and analyze what the students heard
 - We will explore the identification of form and how some sections repeat, while some sections are new.
- We will then listen to the song again, now using letters to represent the contrasting sections. (ABACADA) Students will sing along with the A section and raise their hand when there is a new section.
- We'll go over that this is an example of Rondo form and go over properties of that.

Culminating Activity

- Students will then get into groups and we will change the contrasting sections to names of different shapes.
- Once they are set, we will pick a symbol for the A section and create our Movement Map on the board.
- Students will then follow the movement map, but creating the shapes with their bodies in their groups on the contrasting sections.
- Students will listen to the popular song “What Makes You Beautiful” by One Direction and recognize when it changes. We will then discuss the common form of Verse and Refrain

- We will replace the letters with other symbols, some triangles, some polygons, or lines. We can repeat the activity if we have too many shapes and not enough sections. It depends on what is covered in my class's textbook.
- The three dimensional shapes of cubes and cylinders will be represented from the class discussion in the beginning. We will pick out things around the room that are those shapes.

Closing:

After the activity is over, we will go over the distinguishing qualities that helped them when they were creating the different types of quadrilaterals or triangles, etc. We will then discuss some different kinds of musical form, and how we should always listen for variations of certain themes or repetitions of music when we listen to songs on the radio, in chorus, etc.

What new words did we learn today? What new shapes did we learn? What helped you make the shapes with your bodies?

How would you rate how the class did all together? Thumbs Up, Middle, Sideways

Assessment

Reflection and Journal:

- Students will fill out a self-assessment about the activity and how they felt it was working with the class and in a group.
- Students will then fill out a worksheet with questions culminating both subject areas and summarizing what we learned in the lesson
- Finally, students will fill out their journal and write a reflection:
 - What did you like/dislike about today's lesson?
 - What have you learned about geometric shapes? Draw a picture of one you liked to make.
 - What attributes are shared between a square and parallelogram? What is different?
 - Write a fact you learned about form.
 - How did it feel working with a group and as a class

Adapted from Lesson Plan Template by Eric Johnson 2002