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Geometry Unit

Lesson Plan

**Title:** Shapes All Around Us

**Grade Level:** Kindergarten

**Objectives:**

1. To examine, recognize, name, and explore simple geometric solids.

2. To recognize simple geometric shapes in the real world.

3. To begin to recognize the difference between two-dimensional and three-dimensional shapes.

**Common Core Standards Addressed:**

K.G.1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.

K.G.2. Correctly name shapes regardless of their orientations or overall size.

K.G.3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).

**Materials:**

1. 1 set of geometric foam solids.
2. 1 set of plastic geometric shapes.
3. Book: “Ship Shapes” by Stella Blackstone.
4. 6 shape worksheets.
5. Markers.
6. 6 Pencils.

**Procedure:**

 College students:

1. I will first explain my objectives to the students in my group. I will briefly explain how they connect to the common core standards.

Kindergarteners:

1. I will begin by having the students name as many geometrical shapes as they can. They will be able to use the geometrical manipulatives that I provided. I will write the shapes on the board so they are able to see how to spell them and be able to recognize the names.
2. From there I will begin to ask the difference between two-dimensional and three-dimensional shapes. I will use the foam shapes and plastic shapes so the students are able to visual see the difference. (Example: difference between cube and square)
3. Once the students are able to recognize different shapes whether they are two-dimensional or three-dimensional, I will read the book, “Ship Shapes” by Stella Blackstone. During this time I will also have student volunteer to read a few pages or have the whole class read certain pages. This book describes how shapes can be used to make pictures or different objects in the real world. While reading this book I will ask the students what shapes they see in the pictures.
4. When the book is done I will have the students look around the classroom and outside the windows to see other shapes that make up the real world. I want them to be able to connect shapes into their everyday life.
5. I will hand out the shape worksheets where the students are required to draw a picture that uses the shapes that we talked about in class. The students will also be required to practice their handwriting and sentence formation by writing a sentence that describes what they drew. During this time I will walk around to see whether the students understand basic shapes. By this, I will ask them questions about why they picked that shape and what the shapes are called.
6. I will have the students share what they drew and the shapes they used to make their picture.

College Students:

1. At the very end of the lesson I would quick explain to everyone how I would assess their understanding. I did assess them during the lesson but I want to clarify exactly what I did.

**Assessment:** To assess whether the students understand this unit I would ask questions. The questions would consist of, “What shape is this? What is the different between this shape and this shape? Can you show me what the two-dimensional shape is? Can you show me what the three-dimensional shape is? Why did you use this shape to make this picture?” Asking questions will allow myself to know whether I need to reteach a topic or if the students are ready to move further with shapes. While asking questions I will take anecdotal notes so I am able to refer to them later during conferences or when I’m planning further lessons. My main objective is for students to be able to recognize the shapes and understand how they are connected to our everyday lives. The shape worksheet will also be another way I could assess the students understanding. The reason why is because the students are supposed to draw shapes that create real world objects they see every day. The students are also required to write a sentence describing their object. The sentence is fill in the blank style, but it stills gives the students a chance to learn how to spell the shapes and begin to use sentence formation. This worksheet would be a great tool to have in the student’s portfolio so I can look back to see the students progression and I would be able to show the parents.

**Differentiation:** For my students in the class who have fine-motor problems this could be that they have difficulties drawing; I would give them the option of using sponges to create their pictures. The students could dip the sponge in paint and create their picture that way. This gives them a chance to participate and not feel excluded. I know that if paint is put out other students may want to use it. So I could create stations where students had the choice to either draw or use paint to create their pictures. If students begin to have difficulties grasping the idea of how different shapes could make objects, I could use cutout shapes so the students are able to create objects with them and glue them on their sheet. From there they could draw what they created. The foam and plastic manipulatives I provided are there for the students to visual see what each shape looks like. For high-level learners I would expect them to make a two or more pictures that are using a variety of shapes or more complex objects that require more shapes. Since high-level learners are at a faster pace, this will allow them to work further but still keep the same pace as the other students.

**Integration Activities:** For this unit I am able to connect language arts which includes reading and writing to geometry. The students will be expected to read along with me. This will allow them to practice their word comprehension along with saying the name of different shapes. Having the students read from the book will also help them begin to see how each shape is spelled so they are able to recognize it later. The students’ writing also is practiced when they have to write a sentence about this drawing. This allows them to practice their hand writing along with sentence formation.

**Lesson Justification:** The lesson promotes understanding of geometric shapes by allowing them to visual see what each shape looks like, feels like, and how they are spelled. This lesson connects what they already know about different shapes. The students are able to connect this lesson to their everyday life which will make it meaningful and easier for them to understand. For this lesson students are able to experiment with different manipulatives which include the foam and plastic shapes. This will hopefully help promote understanding of what the different shapes look like. With the shapes the students are also able to use them to create everyday objects. This area could be connected with the mathematical practice, using tools. With this lesson students are also focusing on communication which is a Process Standard. Students are expected to be able to recognize and name each shape. If the students are nonverbal, I will say the shapes and the students will hopefully be able to point. Students are communicating with me on how well they know the shapes and communicating with peers while exploring shapes. The students could be showing shapes they found to other students or asking them questions about different shapes. Another Process Standard that is being used is connections. With my lesson I connected language arts which includes reading and writing. For my lesson the students are expected to be able to write a sentence about what they drew. This will help promote understanding on how to spell each shape and allow them to understand sentence formation. While I read the book I will ask students to help me read certain pages. This will allow them time to work on the word comprehension.

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