

Title: Math Unit: 2D Shapes and 3D Solids

Learning Intention/Description of Learning Activity:

This math unit, focused on the topic of 2 dimensional shapes (circles, squares, rectangles and triangles) as well as 3 dimensional solids (cubes, cones, spheres, cylinders, rectangular and triangular prisms).

Children learn to analyze shapes, identify their defining properties, and talk about them. They also learn what makes a triangle a triangle and how a triangle is different from a square. They learn that a square is a sub-class of rectangles. A 3D shape has three dimensions. Therefore, unlike a 2D shape, it's not flat. 3D shapes are measured by length, width and depth. Letting kids explore and manipulate shapes has great learning potential. As children learn to distinguish between circles, squares, triangles, and rectangles, they engage in critical thinking processes. They learn to identify similarities and differences, laying the foundation for more complex cognitive abilities.

Furthermore, the spatial reasoning required to understand shapes promotes mental manipulation and visualization skills, both essential components of problem-solving. Learning about the attributes of 3-D solids, including the number of sides, edges, and vertices, and that they can rotate each shape helps to better understand the characteristics of different shapes. The unit involved learning about the number of sides, edges and corners of both 2-D shapes and 3-D solids. Students had an opportunity to handle 3-D solids and identify everyday items that are 3-D solids.

Teacher Comments/Feedback:

NAME is currently at an “emerging” level of understanding for grade-level expectations.

HE/SHE required some reminders and prompts to listen carefully to the instructions and to try to demonstrate HIS/HER best effort. HE/SHE struggled to complete the work and so support was given one-to-one to complete most of the worksheet pages. HE/SHE required reminders and prompts to watch and listen to the videos and instructions appropriately and to follow along with the instructions, examples and modelling shown such as, with the video worksheet lessons. HE/SHE struggles at this point to be able to name 2-D shapes and 3-D solids and to accurately count the number of sides, edges or faces on a shape and/or solid.

Next steps:

Continue to look for flat 2D shapes and 3-dimensional solids everywhere. Look for them in street signs, used in buildings, and in the shape of everyday items from cereal boxes to water bottles. Create a list of all the items you can find and label their shape or solid. Play a game of “I spy with my little eye something that has the shape of a (name a 3D solid or 2D shape). Build with blocks and name the solids used. Draw images of houses and name the shapes used.

Student Self Reflection:

Proficiency Scale

Emerging	Developing	Proficient	Extending
Just beginning to demonstrate learning in relation to the Learning Standards of the Curriculum	Demonstrating learning in relation to Learning Standards of the Curriculum with growing consistency	Demonstrates the expected learning in relation to the Learning Standards of the Curriculum	Demonstrating learning in relation to Learning Standards with increasing depth and complexity

Emerging	Developing	Proficient	Extending
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