

# THREE DIMENSIONAL SHAPES

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## Subject

Mathematics

## Prepared By

[Instructor Name]

## Grade Level

1

## Overview

This lesson plan covers teaching content for;

1. Identifying a cube, sphere, cylinders and cuboids.
2. Identifying and counting the flat surfaces of 3 dimensional shapes.
3. Identifying and counting the edges and corners of 3 dimensional shapes.
4. Properties of a cylinder and a sphere.

## Objectives

Students should be able to;

1. Recognize and name common 3-D shapes, including: 3-D shapes [for example, cuboids (including cubes), (pyramids and spheres).
2. They recognize these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids are not always similar to each other.

## Teacher Guide

### Day 1, Lesson 1- 15 Mins

1. Hold up each of the 3D shape blocks and review the attributes of each shape including the number of faces (or flat surfaces), corners, and vertices (or points) of each shape.
2. Record this information on the whiteboard or chart paper next to each shape name.
3. Tell the class that they will get to practice building models of 3D shapes that will include all of these attributes.
4. Demonstrate how to use the art materials (Cardboards, glue, etc.) to create a 3D shape (such as a cube).
5. Model thinking aloud as you make sure to include all of the shape attributes.
6. Show the class how to draw an image of your 3D shape, labeling each of the attributes.
7. Pause students and ask them to record each 3D shape they built on their paper.
8. Ask students to label each 3D shape drawing with the shape attributes.

## Teacher Guided Practice

### Day 2, Lesson 2- 15 Mins

1. Show your students a cube, a cuboid and a cylinder
2. As you show them each shape, ask them to tell me different shapes they see within the cuboid.
3. The idea is that they will talk about the rectangle that make up each side.
4. Use this to introduce the terms faces and sides.
5. Ask your students to write down things that they notice about each shape.
6. Give them one of each 3d block and ask them to focus on the shapes that make up the block, and the number of sides, faces, and corners.
7. They should record their observations in a sheet
8. Gather back and discuss their works with them.

## Materials Required

- Card board
- Boxes, balls, objects
- 3D shape blocks
- Toothpicks
- Modeling clay

## Additional Resources

<http://www.cpalms.org/Public/PreviewR>  
<https://betterlesson.com/lesson/608894>  
<https://betterlesson.com/lesson/598047>  
<https://www.pdesas.org/ContentWeb/C>

## Additional Notes

## Objectives

### Introduction/Instruction

1. Display examples of 3D shapes using blocks and cylinders
2. Show an example of 3D shapes like a cube, pyramid, triangular prism, and rectangular prism one at a time.
3. Before showing a shape, pair up your students and have one partner cover their eyes.
4. Have the other partner describe the shape to them. See if they can guess the shape based on the description.

### Assessment Activity

- Having students stay in their groups, have them examine the 3D shapes together to identify the

## Teacher Guide

### Day 3, Lesson 3- 15 Mins

1. Show three-dimensional shapes to students, allowing them to look at and manipulate each of the shapes- the cylinder, cone, sphere, and cube.
2. Discuss and describe each shape. You may say: "Let's look at the sphere. It's round like a circle and can roll. Let's look at it, feel it and see if it really does roll".
3. Continue this procedure with each of the three-dimensional shapes making comments about their geometrical shape and attributes.
4. Other questions may include:
  - Can you think of a real-world item that is shaped like a sphere?
  - Will the sphere stack on top of other shapes?
  - Can the sphere slide?
  - Can you demonstrate your answer for me?
5. Allow time for students to explore and manipulate while you lead the discussion about these shapes.
6. Ask specific questions like: Emeka, what does a cone look like and can you show me whether it slides, stacks or rolls?

### Assessment Activity

- 1.

## Teacher Guided Practice

### Day 4, Lesson 4- 20 Mins

#### (3d Shapes in the Environment)

1. You can start by telling them that a sharpened pencil is made up of a cone and a cylinder. "When we put the cone and cylinder together, it is similar to the shape of a sharpened pencil.
2. Tell your students that in our environment, or the places where we live, work, and play, things are made up of three-dimensional shapes.
3. Let them know that some objects are only made of one three-dimensional shape, like a box." Show a box and how it is a rectangular prism or cuboid.
4. "Other objects are made up of two or more three-dimensional shapes, like my pencil.
5. Tell them that for the next few minutes they are going to look around the room and find as many objects as they can that are made of three-dimensional shapes.
6. They should record what they find on a recording sheet.

### Assessment Activity

- 1.

**Objectives**

number of faces, edges,  
and vertices each has.

**Teacher Guide****Teacher Guided Practice****Summary**