Whole class activity

# Three Dimensional (3-D) Objects

Learning objective: Recognise and name 3D Objects

**Let's Talk Math:** Discuss with students how some shapes have length, height and breadth and are 3D in nature.

## Make Sure You Have: Playdough

## **Activity: Exploring 3D Shapes**



# **Duration: 1 Lesson**

# Let's Try It:

- Give each pupil playdough and ask them to make a square.
- Draw a square on the board and ask, "What's the difference between this and your playdough square?"
- Explain the third dimension: the board square has height and width, while the playdough square has depth.
- Draw a circle, rectangle, and triangle, explaining that a square becomes a cube in 3-D. Ask for 3-D shapes related to the other shapes. If incorrect, note them but explain they're not the answer.
- After two minutes, draw a cube, cuboid, cone, cylinder, and sphere.
- Show how cubes and cuboids differ from 2-D shapes and explain the difficulty of drawing a sphere.
- Guide students to shape a sphere, cube, cuboid, and cylinder with playdough.

**Assessment:** Assign 15 minutes of classwork from the textbooks so that pupils can revise these concepts.

## **Two Dimensional Figures**

### Learning objective:

- Identify the figures like square, rectangle, triangle, circle, semi-circle and quarter circle.
- Identify vertices and sides of a triangle, rectangle and square.

**Let's Talk Math:** Ask the class to volunteer any information they remember about shapes, and which shapes they can name.

#### Make Sure You Have: Foam Sheets



#### Activity: Shape Shifting

#### Duration: 1 Lesson

**Group activity** 

#### Let's Try It:

- Make groups of four to six people and hand out foam sheets, markers and child friendly scissors.
- Ask each group to make cut outs of each shape making sure to draw them with a marker first.
- Make sure the sides of the square are as equal as possible.

**Assessment:** Present each pupil with a picture, possibly from a colouring book, that includes straight lines and curved lines. Ask the pupils, in pairs, to go through the and identify as many curved lines and as many straight lines as possible, by outlining them with differently coloured highlighters, or markers.

#### Patterns

#### Learning objective:

- Make complete geometrical patterns on square grid according to one or two of the following attributes
  - o Size
  - o Shape
  - o Orientation

**Let's Talk Math**: Ask the class to volunteer any information they remember about shapes and which shapes they can name.

#### Make Sure You Have:

According to Shape		According to Size	
	According to Orientation		
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#### Activity: Team Pattern Challenge

#### **Duration: 1 Lesson**

Whole class activity

#### Let's Try It: Team Pattern Challenge

- Split the class into two teams.
- Each student receives an A4 sheet to draw three patterns, leaving space for continuation.
- Students write their names in the corner.
- Collect all sheets and create two stacks, one from each group.
- Swap stacks between groups.
- Each team distributes one worksheet per pupil.
- Teams work together to solve worksheets.
- The first team to complete all worksheets wins.

**Assessment:** Present pupils with five or more patterns on the bord to copy down and complete. They should only include circles, triangles, squares, rectangles and the variations should be based on size, shape and orientation.