

# UNIT 1





## Geometry



### Recall

Red Carpet welcomes you



Count , ,  and  in the red carpet above and write their numbers.



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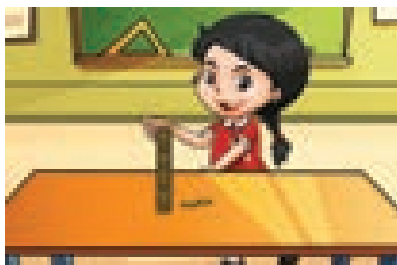
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### Learn

### Shape Towers



Pile up the given objects and observe the change in their shapes.



#### Teacher's Note:

Teacher can involve the children to arrange the given objects such as square, rectangle shaped papers and coins etc., to appreciate the formation of objects formed.

## 1.1 Introduction to 3 dimensional (3D) shapes

### Travel Through

### King's Palace



Animals build a palace for the lion, their king. Each of them brought an object for the palace. Observe the objects brought by them.

#### Keywords

Cube  
Cuboid  
Cylinder  
Cone  
Sphere



Match the items brought by the animals as seen in the above picture. One is done for you.




#### Teacher's Note:

Teacher can narrate the above story of the King's Palace for enhancing the mathematical vocabulary such as cube, cuboid, cylinder, cone and sphere.

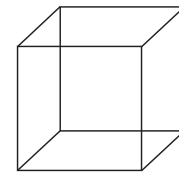
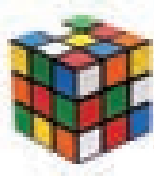


## Learn

### Cube



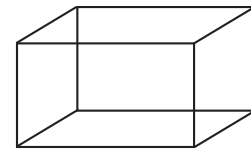
The following objects are in the shape of **cube**.



Cube

### Cuboid

The following objects are in the shape of **cuboid**.



Cuboid

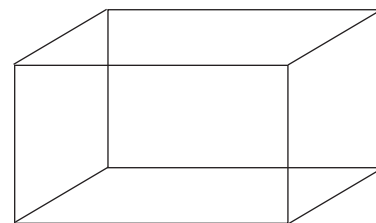
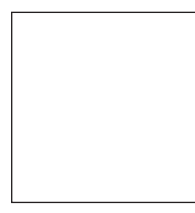
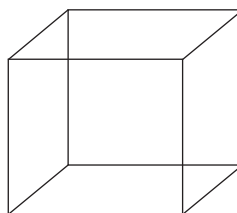
## Practice



1. Identify the cube and cuboid shaped objects and write '**A**' for cube and '**B**' for cuboid inside the box given below.



2. Colour the cube shape with **red** and cuboid shape **green**.

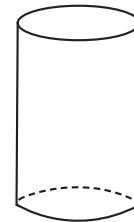


## Learn

### Cylinder



The following objects are in the shape of **cylinder**.



Cylinder

### Cone

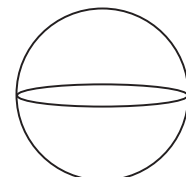
The following objects are in the shape of **cone**.



Cone

### Sphere

The following objects are in the shape of **sphere**.



Sphere

## Practice


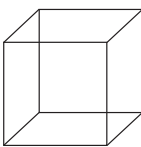

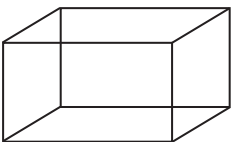



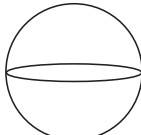




Identify the cylinder, cone and sphere shaped objects and write '1' for cylinder, '2' for cone and '3' for sphere.



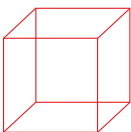
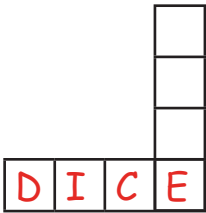

## Try This


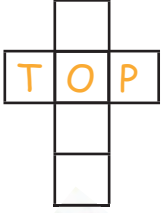

Match the objects with their shapes and names of the shapes. One is done for you.

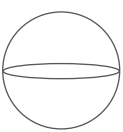
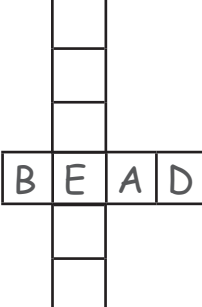

		CUBOID
		CUBE
		CONE
		CYLINDER
		SPHERE

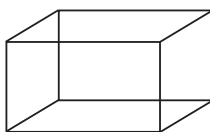
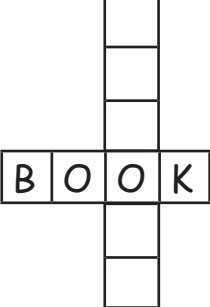

## Practice


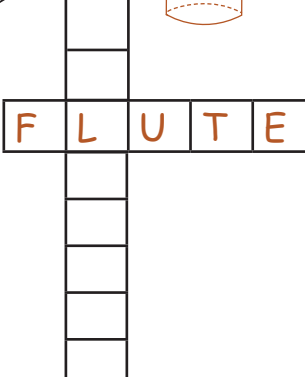

The names of the objects are given in the boxes. Observe the shapes of the given objects. Write them in the empty squares matching each object. (SPHERE, CONE, CUBE, CYLINDER, CUBOID)

## Pleasure Time

Help your toy friends to reach their houses.

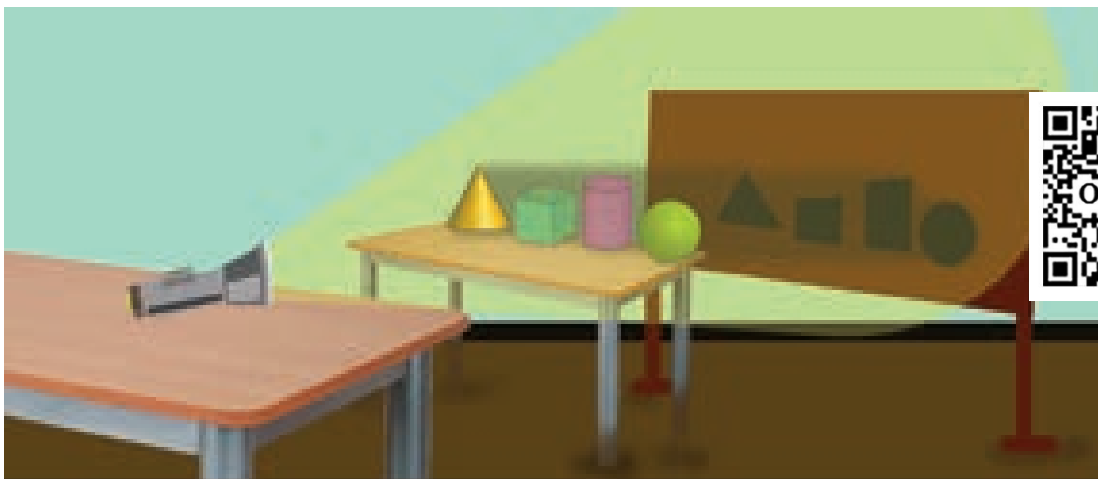


### Teacher's Note:

Teacher can encourage students to draw the path for the toy children to reach their houses. They need to collect their identical shapes on their way. Example cube, cylinder, sphere, cone, cuboid.

## 1.2 Identification of 2D shapes and 3D objects

### Travel Through



#### Teacher's Note:

Place the objects on a table as given in the picture and fix a cardboard behind the objects. Now glow a torch light from the front side of the objects horizontally and make students see the images of the objects on the cardboard.

### Learn

#### 2D impressions of 3D



Take an inkpad.



Press an eraser on the inkpad.

Remove the eraser. Press it on white paper and see the 2D impression.

#### Teacher's Note:

The teacher can explain that various 2D shapes can be obtained as per the 3D objects used.

### Practice

Based on the above activity, fill in the table given below.


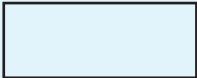


Objects used	Shapes formed
Eraser	Rectangle
Sharpener	
Dice	
Bead	

#### Teacher's Note:

Do the activity by using the objects like pencil, sharpner, dice, ball, beads etc., Observe the impression.

## Try This

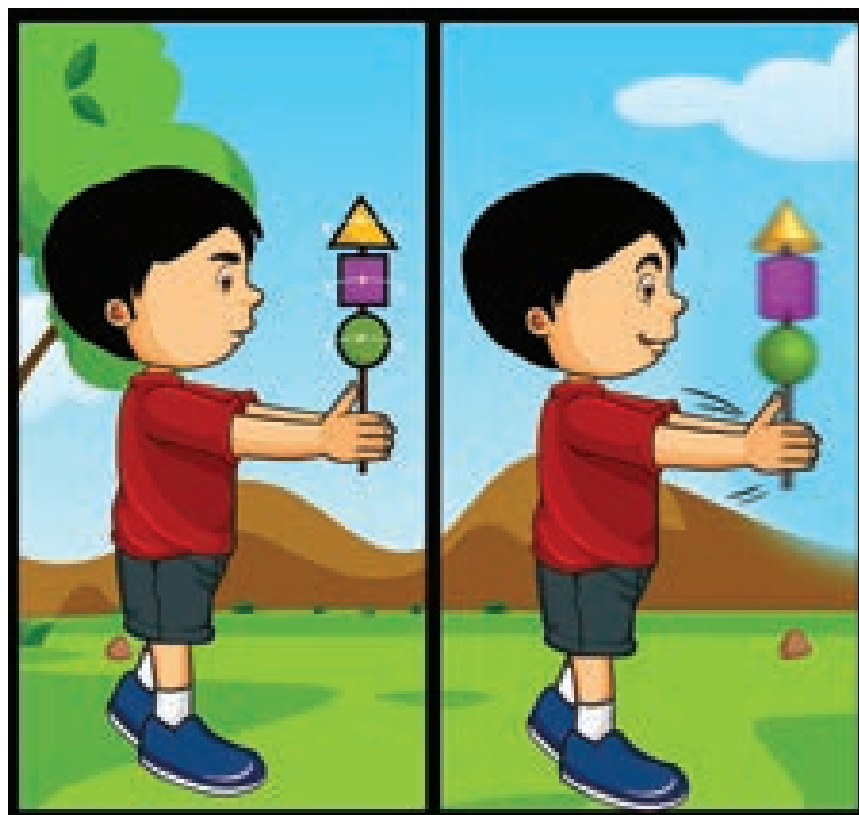
Draw the outline of the objects using pencil. Remove the objects and write the names of the shapes formed.

3D Shaped objects	Traced figure	Name of the 2D shape
		Rectangle
		
		

## Activity

### 3D figures from 2D shapes

Take triangle, rectangle, circle shaped colour papers. Paste it firmly with a stick and rotate the stick. Observe the 3D figures formed from 2D shapes.







## Activity

## 3D objects using clay



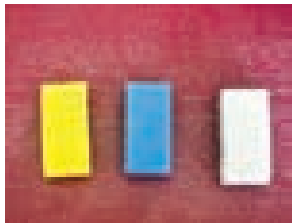
Make the sphere into cylinder, cylinder into cuboid and cuboid into cube by following the instructions given.



1. Make balls using clay.



2. Roll the balls on a tray and cut both the edges to form cylinders.



3. Pat the cylinders to make cuboids.



4. Pat the cuboids to make cubes.

## Pleasure Time



Let us join the dots and draw shapes like cube, cuboid, cone and cylinder.

