

Maths

Entry Level

Type of Pack: Taster/Introduction



Name:



**Prison
Education**

 HM Prison &
Probation Service

INTRODUCTION

Hello...

We hope you find this **Taster/Introduction Pack** easy to follow and interesting whilst in Lockdown.

This pack contains a variety of activities that you may see when starting on the course.

These activities should be easy to follow but where there are questions, we would encourage you to have a go without looking at the answers to see how you get on.

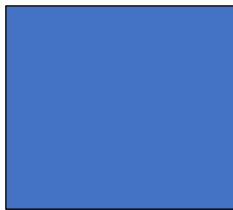
CONTENTS

- Recognising Shapes
- 2 and 3 dimensional shapes
- Questions and answers

Recognising Shapes

Shapes can be classified as either 2 dimensional or 3 dimensional.

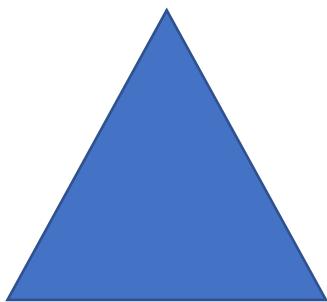
2 Dimensional or 2D



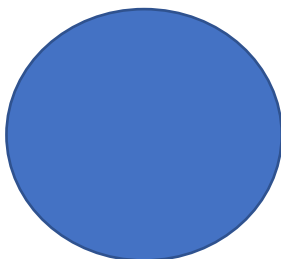
 Square



 Rectangle



 Triangle



 Circle

Can you describe anything special about each shape?

- Circle.....
- Rectangle.....
- Square.....
- Triangle.....

These are known as Characteristics

- Circle--Only has one side, has no corners.
- Rectangle--Has 4 corners, has 4 sides, **opposite sides are equal.**
- Square--Has 4 sides, has 4 corners, **all sides are equal.**
- Triangle--Has 3 sides, has 3 corners.

Question: Can you name some items in your cell that have this shape?



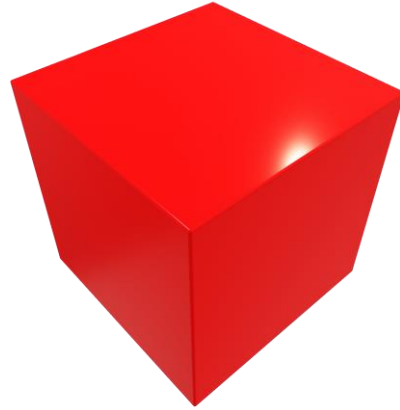
3 Dimensional or 3D

- An easy way to think of a 3D shape is any shape or object that takes up air space
- You can't take up the same space as a chair or a dog or anything else. This is what makes a shape 3D.
- In mathematical terms, a 3D shape has three dimensions
- 3D is like 2D but air pumped into it.

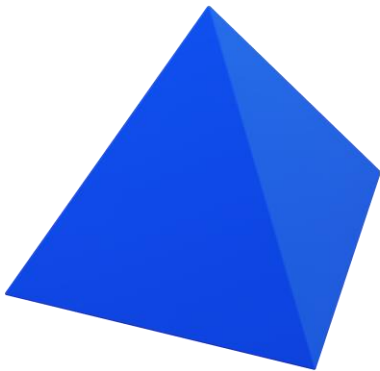
Examples of 3D shapes



Sphere



Cube



Pyramid



Cylinder

Characteristics of 3D shapes

- While describing 3D shapes we talk about “faces”, a dice you would roll for a game of snakes and ladders is a cube shape and would have 6 faces.
- Cube—6 faces, all faces same size, 8 corners
- Triangle—5 Faces, 5 corners
- Sphere— Like a football, 1 side no corners
- Cylinder-- two identical flat ends that are circular.

Question: Can you name some items in your cell that have 3D shapes?



Questions

What is the shape?

1. 12 sides all the same length. Has 8 corners. Has 6 square faces

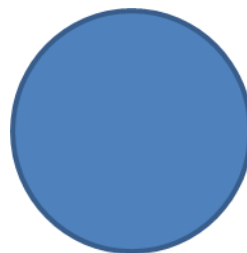
2. Completely round, but flat.

3. Has 3 sides, and 3 angles.

4. Has a square base and 4 triangular faces.

5. Has a 2 circular ends and a curved surface.

Sort shapes into 2D and 3D



Why is this important

- Shapes are important in our daily life because in our daily life everything around us is made up of 2D or 3D shapes.
- Stop and think for a minute and look around you!!!!

Your bed, door, cup, books, pens

Answers

- 5 o'clock
- 17.00 hours

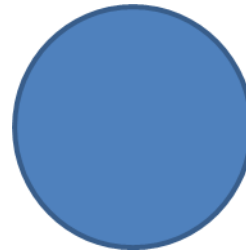
Answers

1. Square
2. Circle
3. Triangle
4. Pyramid
5. Cylinder

Answers



3D



2D



2D



3D

