



Musaeus College

Study Pack 2 / Week 2 / March 2020

Grade : 6 Subject : Mathematics

Medium : English

Lesson 1: Unit : Solids

The surfaces, faces, edges and vertices of solids.



What is called a solid?

- ❖ An object of specific shape which occupies a certain amount of space is called solid objects.
- ❖ The outer surface is called the “surface” of the solid.

The faces of solids

- The outer surface of solids may be a plane (flat) surface or a curved surface.
- The surface of a football is a curved surface.



- All the surfaces of a brick are plane surfaces. These plane surfaces are called faces. That means, a brick has 6 faces.



The edges of solids

- What is called an edge?
- The boundary along which two surface parts of a solid meet is called an edge.
- Edges are two types. Straight edges and Curved edges

The vertices of solids

- What is called a vertex?
- The place where three or more edges of a solid meet is called a vertex.

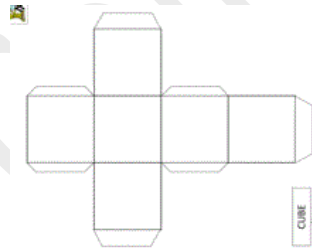
➤ Do the Exercise 17.1

• Lesson 2: **Let's learn about the following solids.**

➤ Cube



The net of the cube



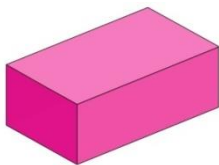
Properties of a cube

- ✓ A cube has 6 faces
- ✓ The shape of each face is a square
- ✓ All the faces are identical
- ✓ A cube has 12 edges
- ✓ A cube has 8 vertices

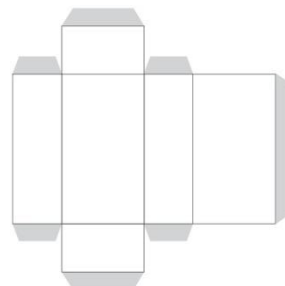
Examples for cubes are: a die, a Rubik cube, Maggie soup cubes



➤ Cuboids



The net of a cuboid

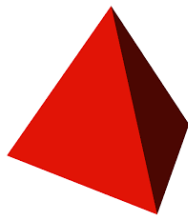


Properties of a cuboid

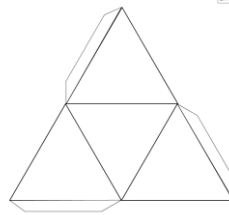
- ✓ a cuboid has 6 faces
 - ✓ the faces of a cuboid take the shape of rectangle
 - ✓ the faces which are opposite each other are equal in size and shape
 - ✓ a cuboid has 12 edges
 - ✓ all the edges are rectilinear
 - ✓ a cuboid has 8 vertices
- ✓ example for cuboids : a brick, a pencil box, an eraser



Regular Tetrahedron



The net of a Tetrahedron



Properties in a tetrahedron

- ✓ it has 4 faces
- ✓ the shape of a face is triangular
- ✓ it has 6 edges
- ✓ all the edges are rectilinear
- ✓ it has 4 vertices

Example for tetrahedron shapes: some ornaments, key tags, pendants

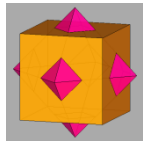


▪ Lesson 3: Making solids

- Copy the nets given in your text book on a Bristol board and follow the instructions given and make models of these solids.

▪ Lesson 4: Compound solids

- By combining together some of the solids that you make, you can make compound solids.
- Some examples are as follows



- Construct a model of a “CITY” in 3D form using different types of solids and compound solids.

▪ Lesson 5 : Do the exercises given in the text book

- Exercises 17.2,17.3,17.4,17.5

Prepared by: Mrs. Kalhari Batugahage