3D Shape

## One-dimensional (1D)

- This is one-dimensional
- It has only one dimension - length
- The only one-dimensional shape is a line


## Two-dimensional Shapes (2D)



- These shapes are flat and can only be drawn on paper.
- They have two dimensions length and width.


## Three-dimensional Shapes (3D)



- These shapes are solid or hollow.
- They have three dimensions - length, width and height.


## Face



- Part of a shape that is flat.(Or curved)
- e.g. A cube has 6
of these.


## Edge

- The line where two faces meet.

- e.g. A cube has 12 of these.


## Vertex (Vertices)

- The place where three or more edges meet.
- This pyramid has 4 of these.


## Parallel



## Perpendicular

- A line that is drawn in a right angle to another line.
- In solid shapes edges could be at a right angle to one another.
- Faces could also be at right angles to one another.


## Cube

- A three-dimensional shape which has 6 square faces all the same size.

Some faces parallel
Some edges parallel

Some faces perpendicular
Some edges perpendicular

## Cuboid



- A three-dimensional shape which has 6 rectangular faces.

Some faces parallel
Some edges parallel

Some faces perpendicular
Some edges perpendicular

## Sphere

- A perfectly round three-dimensional shape, like a ball. It has only one curved face.

No parallel faces or edges
No perpendicular faces or edges

## Hemisphere

- A three-dimensional shape that is half a
 sphere.

No parallel faces or edges
No perpendicular faces or edges

## Cone

- A three dimensional shape with a circle at its base and a pointed vertex.

No parallel faces or edges
No perpendicular faces or edges

## Cylinder

- A three-dimensional shape with circular ends of equal size.

Some faces parallel
Some edges parallel

Some faces perpendicular
No edges perpendicular

## Pyramid

- A three-dimensional shape which has a polygon for its base and triangular faces which meet at one vertex.
-E.g. Triangular pyramid
- Square pyramid
- Hexagonal pyramid
- Pentagonal pyramid


## Square base pyramid



No faces parallel
Some edges parallel

No faces perpendicular
Some edges perpendicular

## Prism

- A three dimensional shape that has the same cross-section all along its length.


## Nets

## The net of a shape is what it looks like when it is opened out flat.


http://www.mathsnet.net/geometry/solid/nets.html

