

2D and 3D shapes

2D shapes

A 2D shape is a flat shape. We are learning about the following 2D shapes - circle, square, rectangle, triangle, pentagon, hexagon, octagon.



When we talk about the properties of these shapes we look at the number of sides that each shape has and the number of corners. A corner is where 2 sides meet. E.g. a triangle has 3 straight sides and 3 corners, whereas a circle has 1 curved side but no corners.

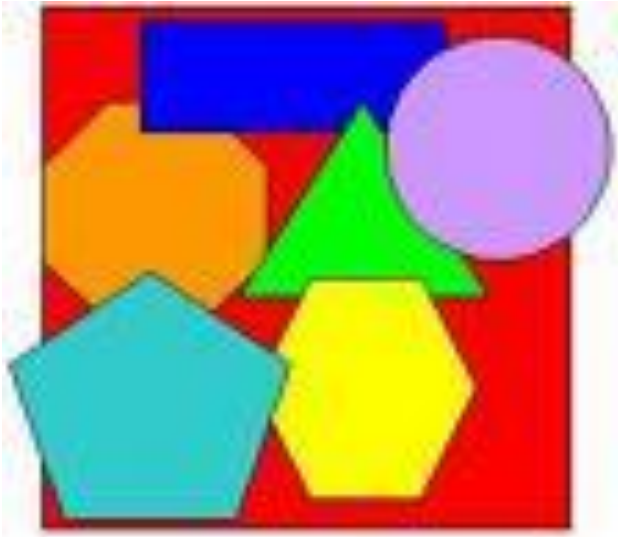
3D shapes

A 3D shape is a blown up shape. We are learning about the following 3D shapes - sphere, cube, cuboid, cylinder, cone, square based pyramid, triangular based pyramid.

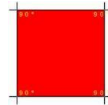


When we talk about the properties of these shapes we look at the number of faces, the number of edges and the number of corners each shape has. Another word for corners is vertices. A face is the part of the shape that has the largest surface area - some can be flat, some can be curved e.g. a cube has 6 flat faces whereas a cylinder has 2 flat faces and 1 curved face. An edge is where 2 faces meet, again some can be straight, some can be curved e.g. a cube has 12 straight edges whereas a cylinder has 2 curved edges. A corner is where 3 edges meet. A cube has 8 corners, as does a cuboid. A sphere has no edges and therefore no corners. It has one curved face that goes all the way around. A square based pyramid, a triangular based pyramid and a cone have a point at the top.

2D shapes



Square - 4 straight sides that are all the same length, 4 corners



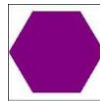
Rectangle - 4 straight sides of which 2 are short and 2 are long, 4 corners

Circle - 1 curved side, no corners



Triangle - 3 straight sides, 3 corners

Hexagon - 6 straight sides, 6 corners



Pentagon - 5 straight sides, 5 corners

Octagon - 8 straight sides, 8 corners



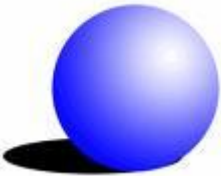
3D shapes



Cube - 6 flat faces that are all the same size, 12 straight edges that are all the same length, 8 corners (vertices)



Cuboid - 6 flat faces of which 4 are long (rectangular) and 2 are smaller (square), 12 straight edges of which 4 are longer and 8 are shorter, 8 corners (vertices)



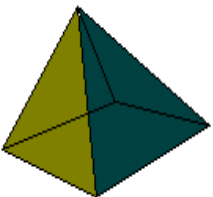
Sphere - 1 curved face, no edges, no corners (vertices)



Cone - 2 faces of which 1 is flat (circular) and 1 is curved, 1 curved edge, no corners (vertices)



Cylinder - 3 faces of which 1 is curved and 2 are flat (circular), 2 curved edges, no corners (vertices)



Square based pyramid - 5 faces (4 are triangles and one is squared - the base of the pyramid), 8 straight edges, 4 corners and 1 point at the top



Triangular based pyramid - 4 faces (all are triangles including the base of the pyramid), 6 straight edges, 3 corners and 1 point at the top