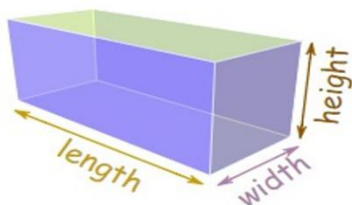


3 D Shape

Three - Dimensional



Having three dimensions (such as height, width and depth), like any object in the real world.

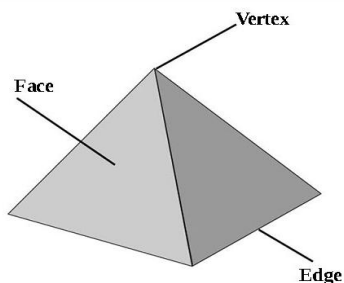
3D shapes have faces (sides), edges and vertices (corners).

Faces - A face is a flat or curved surface on a 3D shape. For example a cube has six faces, a cylinder has three and a sphere has just one.

Edges - An edge is where two faces meet. For example a cube has 12 edges, a cylinder has two and a sphere has none.

Vertices - A vertex is a corner where edges meet. The plural is vertices. For example a cube has eight vertices, a cone has one vertex and a sphere has none.

Surface area - All the areas of all the surfaces added together.



2 D Shape

2D shapes have 2 dimensions- width and height

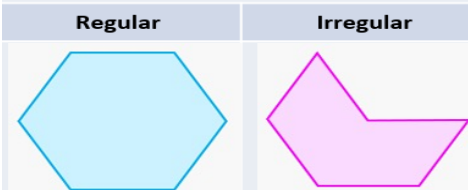
Name	No. of sides
triangle	3
quadrilateral	4
pentagon	5
hexagon	6
heptagon	7
octagon	8
nonagon	9
decagon	10

Polygon - A polygon is any 2D shape with straight sides. Many polygons have special names. For example triangles, squares and rectangles are types of polygon. Polygons can be regular or irregular.

Surface - A surface is the face of the of a shape. It has length and breadth but no thickness. A surface can be flat or curved.

Regular - A regular polygon is any polygon that has all its sides and angles the same. A square is a regular quadrilateral.

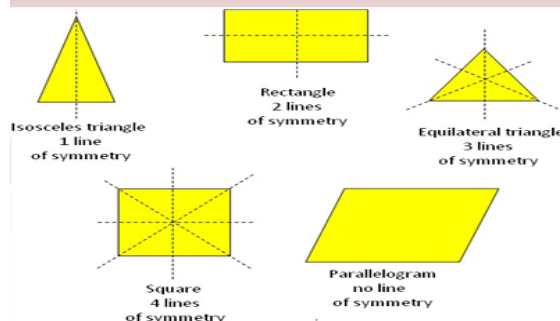
Irregular - Irregular polygons do not have all their sides the same length. They have different size angles.



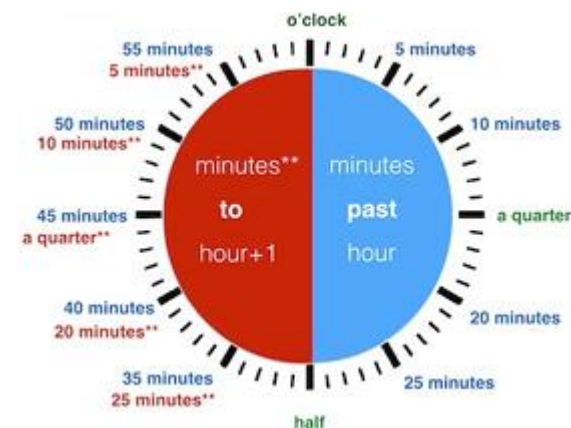
Year 3 Knowledge Organiser

Line of Symmetry

A line of symmetry divides a shape in half. One half is the reflection of the other half. The line of symmetry is the same as a mirror line. Some shapes have no lines of symmetry, others have one or more.



Time



1. Days in Each Month

January	31
February	28 (29 in leap year)
March	31
April	30
May	31
June	30
July	31
August	31
September	30
October	31
November	30
December	31

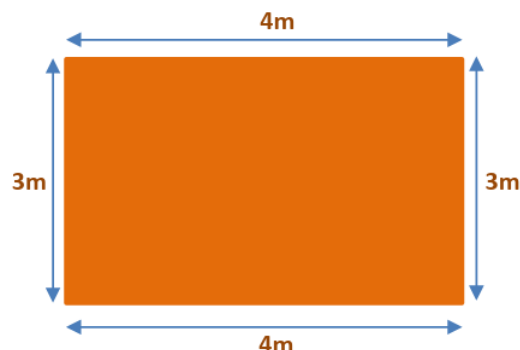
1 minute	60 seconds
1 hour	60 minutes
1 day	24 hours
1 week	7 days
1 year	365 days (366 in a leap year)
	52 weeks

Roman Numerals

I	1	VII	7
II	2	VIII	8
III	3	IX	9
IV	4	X	10
V	5	XI	11
VI	6	XII	12



Perimeter



$$4m + 3m + 4m + 3m = 14m$$

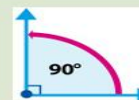
Perimeter is the measurement of the total length around a shape.

Angles

Angles are a measurement. They measure a turn. They are measured in degrees.

Types of angles

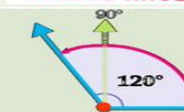
Right angle
Exactly 90°



Acute angle
Less than 90°



Obtuse angle
More than 90°
Less than 180°



Straight line
Always 180 degrees



Reflex angle
More than 180°
Less than 360°



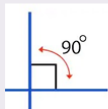
Parallel and perpendicular

Parallel and Perpendicular lines

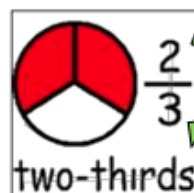
Parallel – Parallel lines are the same distance apart no matter how long they are. Parallel lines can never cross each other.



Perpendicular – Two things are perpendicular when they meet at right angles.



Fractions



The **numerator** is the top number – how many equal parts of the whole are needed.

The **denominator** is the bottom number – how many equal parts there are altogether.



Fractions can be displayed in many ways, e.g. images, numbers, words, etc.

Measurement Conversions

1 centimetre	10mm
1 metre	100cm
1 kilogram	1,000 grams
1 litre	1,000 millilitres
1 litre	100 centilitres
£1	100p
£5	500p

