GODALMING JUNIOR SCHOOL

GLOSSARY BOOKLET

Number

|	Definition	Example
=	A symbol that means 'the same as'	7 x 8 = 56 6 x 8 = 12 x 4
Fraction	Part of a whole. • the top number (the numerator) says how many parts we have. • the bottom number (the denominator) says how many parts the whole is divided into Fractions can also mean division. We divide by the denominator and multiply by the numerator.	
Percentage	Percent means parts per 100 The symbol is %	Example: 25% means 25 per 100, which is the same as 0.25 and ¼ .
Ratio	It is when we compare one part with another part.	if there is 1 boy and 3 girls you could write the ratio as: 1:3 (for every one boy there are 3 girls)
Multiple	The result of multiplying a number.	Examples: • 12 is a multiple of 3, as 3 × 4 = 12
Factor	Factors are the numbers which can be divided equally into a number.	The factors of 6 are: 1, 2, 3 and 6 because each of these numbers can be divided into 6 equally.
Round	Rounding means making a number simpler but keeping its value close to what it was. The result is less accurate, but easier to use.	Example: 73 rounded to the nearest ten is 70, because 73 is closer to 70 than to 80. But 76 goes up to 80. This is the common method: • Decide which is the last digit to keep • Increase it by 1 if the next digit is 5 or more (this is called rounding up) • Leave it the same if the next digit is less than 5 (this is called rounding down)
Co-ordinates	Coordinates are a set of values that show an exact position. On graphs it is common to have a pair of numbers to show where a point is: the first number shows the distance along and the second number shows the distance up or down.	Example: the point (12,5) is 12 units along, and 5 units up.
Translate	To "slide": move a shape without rotating or flipping it. The shape still looks exactly the same, just in a different place.	
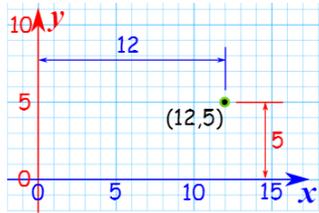
Roman Numerals	How ancient Romans used to write numbers. I means 1 V means 5 X means 10 L means 50 C means 100 D means 500 M means 1000	 Example: 2018 MMXVIII

Measures

	Definition	Example
Area	The size of a surface. The amount of space inside the boundary of a flat (2-dimensional) object such as a triangle or circle.	Formula for finding the area of a: Rectangle: length x width Parallelogram: length x height Triangle: length x height ÷ 2
Perimeter	The distance around a two-dimensional shape.	 Example: the perimeter of this rectangle is 3+7+3+7 = 20
Angle	The amount of turn between two straight lines that have a common end point (the vertex).	
Degrees	A measure for angles. There are 360° in a full rotation and 180° in half a term	The symbol for degrees is ° Example: 90 degrees (90°) is a right angle.
Acute	An angle less than 90° (90° is called a Right Angle)	
Obtuse	An obtuse angle is one which is more than 90° but less than 180° In other words, it is between a right angle and a straight angle.	
Reflex angle	A Reflex Angle is one which is more than 180° but less than 360°	
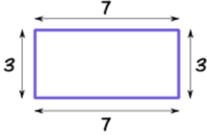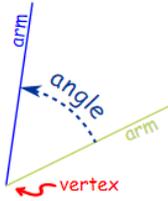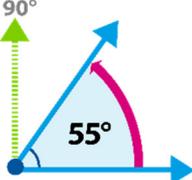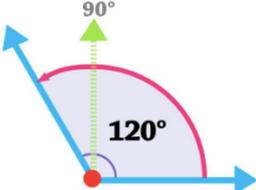
Right angle	An angle which is equal to 90°, one quarter of a full revolution.	**90°**
Vertical	In an up-down direction or position. Upright.	VERTICAL HORIZONTAL
Horizontal	Going side-to-side, like the horizon. Parallel to the horizon.	
Volume	The amount of 3-dimensional space an object occupies. Capacity.	For this example the volume is 4×5×10 = 200 units^3
Mean Average	The mean is the average of the numbers: a calculated "central" value of a set of numbers. To calculate: Just add up all the numbers, then divide by how many numbers there are.	Example: what is the mean of 2, 7 and 9? Add the numbers: 2 + 7 + 9 = 18 Divide by how many numbers (i.e. we added 3 numbers): 18 ÷ 3 = 6 So the Mean is 6.
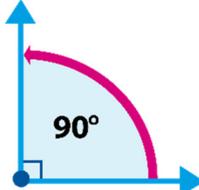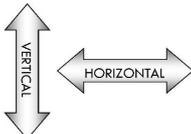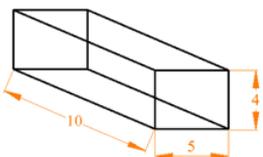
2D Shape

|	Definition	Example
2D Shape	A shape with only two dimensions (such as width and height) and no thickness. Also known as "2D".	Examples: Squares, Circles, Triangles, etc
Polygon	Any 2D shape made up of **straight** lines.	
Regular and irregular	A polygon is regular when all angles are equal length **AND** all sides are equal (otherwise it is "irregular").	
3D Shape	An object with three dimensions (such as height, width and depth) like any object in the real world. Also known as "3D".	
Vertices (on 2D and 3D shapes)	A point where two or more line segments meet. A corner. (The plural of vertex is "vertices".)	Examples: • any corner of a pentagon (a plane shape) • any corner of a tetrahedron (a solid)
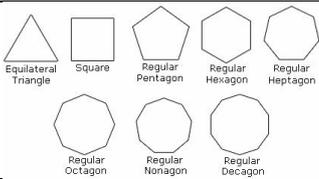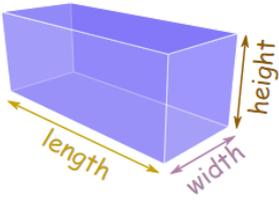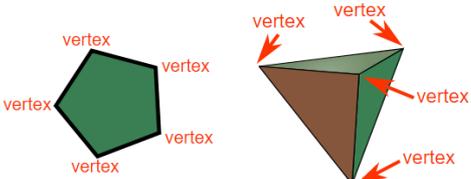
Sides	One of the lines that make a flat (2-dimensional) shape.	
Faces	Any of the individual surfaces of a solid object.	
Edges	An edge is a line segment that joins two vertices (on the boundary of where faces meet) on a 3D shape.	
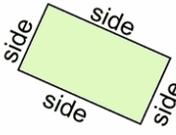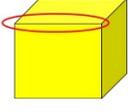
Circles

|	Definition	Example
Circle	A 2-dimensional shape made by drawing a curve that is always the same distance from a centre.	
Diameter	A straight line going through the centre of a circle connecting two points on the circumference.	
Radius	The distance from the centre to the circumference of a circle. It is half of the circle's diameter.	
Circumference	The distance around the edge of a circle. It is the name given for the perimeter of a circle.	
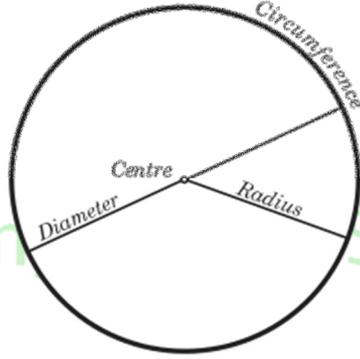
Triangles

	Definition	Example
Triangle	A 3-sided polygon (a flat shape with straight sides).	
Equilateral	A triangle with all three sides of equal length. All the angles are 60°	
Isosceles	A triangle with two equal sides. The angles opposite the equal sides are also equal	
Scalene	A triangle with all sides of different lengths. No sides are of equal length and no angles are equal	
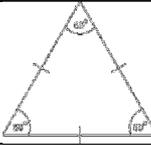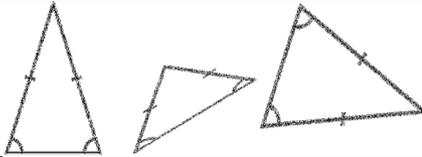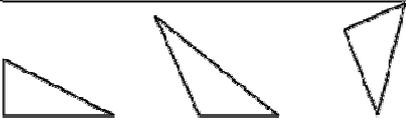
Quadrilaterals

|	Definition	Example
Quadrilaterals	Any 4-sided shape. There are 6 types of quadrilaterals that have their own names: Square, rhombus, rectangle (oblong), trapezium, parallelogram and kite.	
Square	A 4-sided flat shape with straight sides where: • all sides have equal length, and • every interior angle is a right angle (90˚) It is a regular quadrilateral.	
Rectangle	A 4-sided flat shape with straight sides where all interior angles are right angles (90˚). AND opposite sides are parallel and of equal length. A **square** is a special type of rectangle.	
Oblong	A rectangle that is not a square.	
Parallelogram	A 4-sided flat shape with straight sides where opposite sides are parallel. Also: • opposite sides are equal in length, and • opposite angles are equal (angles "a" are the same, and angles "b" are the same) **NOTE: Squares, Rectangles and Rhombuses are all Parallelograms!**	
Rhombus	A 4-sided flat shape with straight sides where all sides have equal length. Also opposite sides are parallel and opposite angles are equal. It is a type of parallelogram (a parallelogram with equal length sides).	
Kite	A 4-sided flat shape with straight sides that: • has two pairs of equal length sides. • The equal length sides are NOT opposite but next to each other. Also, the angles are equal where the different pairs meet.	The dashed lines are diagonals, which meet at a right angle. And one of the diagonals bisects (cuts equally in half) the other.
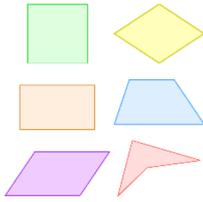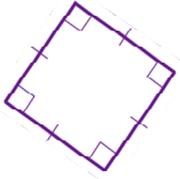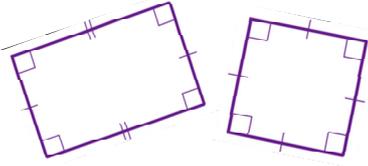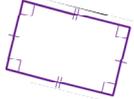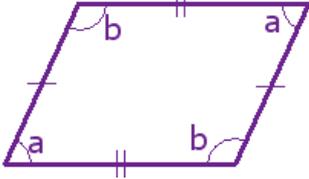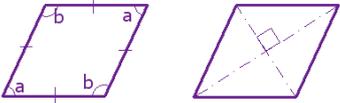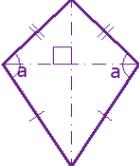
Trapezium	A 4-sided flat shape with straight sides and NO parallel sides. Sometimes called a trapezoid.	
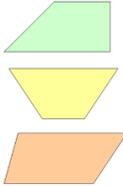
Other 2D Shapes

	Definition	Example
Pentagon	A 5-sided polygon.	
Hexagon	A 6-sided polygon.	
Heptagon	A 7-sided polygon. A 20p and 50p coin are regular heptagons.	
Octagon	An 8-sided polygon.	
Nonagon	An 9-sided polygon.	
Decagon	An 10-sided polygon.	
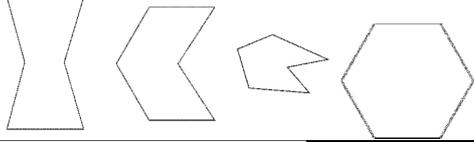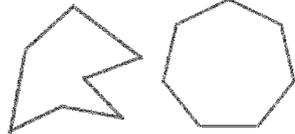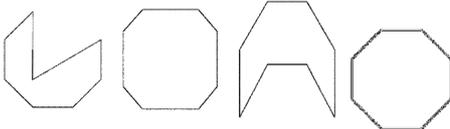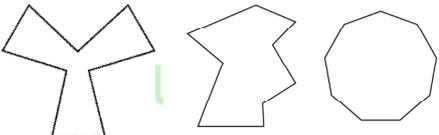
3D Shapes

	Definition	Example
Cube	A box-shaped solid object that has six identical square faces. A dice is a cube.	
Cuboid	A cuboid is a box-shaped solid object. It has six rectangular faces and all angles are right angles.	
Prisms	A solid object with two identical ends and flat sides. The shape of the ends usually give the prism the name, e.g. triangular prism. • The cross section is the same all along its length. • The side faces are rectangles.	

Pyramids	A solid object where: • The base is a polygon • The sides are triangles which meet at the top. The shape of the base usually gives the name of the pyramid, e.g. square based pyramid.	
Tetrahedron	A 3D shapes made up of 4 equilateral tringles faces.	
Net	A pattern that you can cut and fold to make a model of a 3D shape.	
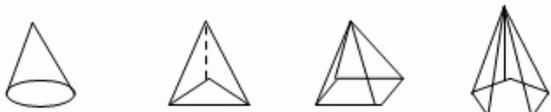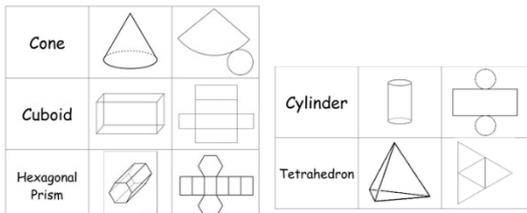
Unit Conversions

	Definition	Example
Time	1 minute = 60 seconds 1 hour = 60 minutes 1 hour = 3600 seconds (60x60) 1 day = 24 hours 1 week = 7 days 1 year = 365 days 1 year = 12 months 1 year = 52 weeks (about) 1 decade = 10 years 1 century = 100 years 1 millennium = 1,000 years	2 and a half minutes = 150 seconds 1 and half hours = 90 minutes 3 days = 72 hours A fortnight = 2 weeks A leap year = 366 days **Months of the year** 30 days have September, April, June and November All the rest have 31, Except for February alone Which has 28 days clear And 29 in a leap year.
Length	10mm = 1cm 100cm = 1m 1,000m = 1km	1.6cm = 16mm; 0.4cm = 4mm 3.6m = 360cm; 16.05m = 1605cm 4.5km = 4,500m; 2.07km = 2070m
Capacity	1,000ml = 1 litre	4.5 L = 4,500ml; 2.07 L = 2070ml Half a litre = 500ml Quarter of a litre = 250ml
Mass	1,000g = 1 kg	4.5g = 4,500g; 2.07kg = 2070g Half a kilogram = 500g Quarter of a kilogram = 250g