

# Geometry Curriculum Map

## I can...

### Grade 1 & 2

Identify and calculate angles on a straight line, around a point and vertically opposite

Measure and draw angles to nearest degree

Construct a triangle given sides and angles

Calculate missing angles in triangles and quadrilaterals

Identify properties of 3D shapes

Identify and construct nets of common 3D shapes

Reflect, translate and rotate a shape

Classify quadrilaterals and triangles given their properties

Calculate the area and perimeter of rectangles/squares/triangles

Calculate area and perimeter of compound shapes involving rectangles

### Grade 3

Calculate the volume of a prism and cuboid

Calculate the surface area of prism

Calculate the area of a trapezium

Identify and name parts of circle

Calculate the circumference and area of a circle

Identify and calculate angles in parallel lines e.g.: alternate, corresponding & allied

Calculate angles in isosceles and equilateral triangles

Draw and find bearings

Describe rotations, translations and reflections

Identify congruent shapes

### Grade 4

Construct triangles accurately given SSS, ASA, SAS

Use a ruler and compasses to bisect an angle

Construct perpendicular lines

Enlarge any shape given a positive scale factor

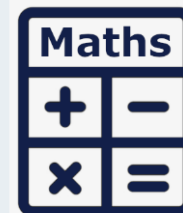
Describe a rotation, reflection and translation on a co-ordinate grid

Calculate the circumference and area of a semi-circle and quarter of a circle

Calculate missing lengths using Pythagoras' Theorem

Calculate interior, exterior and the sum of angles in polygons

Summer 2



### Grade 5 & 6

Enlarge a shape given a negative integer scale factor

Describe fully a single transformation

Calculate and solve vector problems involving ratio

Calculate the number of sides on a regular polygon given the interior and exterior angles.

Understand and use the formulae  $Sum\ of\ Angles = (n - 2) \times 180^\circ$  and  $\frac{360^\circ}{n} = exterior\ angle$

Recall and use the formulae for volume and surface area for pyramids, frustums and cones.

Calculate the dimensions given the volume or surface area

Calculate the length of a line given two coordinates

Define a geometric progression and continue a sequence

Use and apply trigonometry to right-angled triangle, including worded problems

Identify roots and turning points on a quadratic graph

Calculate volumes of 3D shapes and prisms

Use constructions to solve loci problems