

# Geometry Learning Journey



Know the Cosine rule

Know the Sine rule

Use vectors to construct proofs

Know the circle theorems

Know exact Trigonometric ratios

Know trigonometry in right angles triangles

Apply Pythagoras' Theorem to 3D shapes

Apply Trigonometry to 3D shapes

Use the Sine rule for area

Perform operations with vectors

Calculate with parts of circles

Use similar shapes to find missing values

Calculate surface areas and volumes of complex shapes

Higher

Enlarge shapes with fractional scale factors

Know Pythagoras' theorem

Enlarge shapes with negative scale factors

Understand and use bearings

Calculate the circumference and area of circles

Understand and use Loci

Enlarge shapes with a centre of enlargement

Understand plans and elevations

Complete ruler and compass constructions

Use 2D vectors for translations

Describe reflections, rotations and translations

Calculate with compound measures

Find angles in parallel lines

Know the parts of a circle

Calculate volumes of cuboids

Calculate the surface area of cuboids

Identify specific triangles and quadrilaterals

Use angles on a line and angles around a point

Cross over

Know the angle properties of polygons

Transform shapes

Use angles in a triangle

Use vertically opposite angles

Draw and measure angles

Calculate the perimeter of shapes

Name the different quadrilaterals

Name 3D shapes

Know the properties of 3D shapes

Calculate the area of rectangles

Calculate the area of triangles

Calculate the area of rectilinear shapes

Read coordinates in all 4 quadrants

Name 2D shapes

Foundation

Know the properties of 2D shapes

Know the compass points

Plot coordinates in all 4 quadrants

Draw and measure lines