

Geometry

2-D shapes

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles] 	<ul style="list-style-type: none"> identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] compare and sort common 2-D shapes and everyday objects 	<ul style="list-style-type: none"> draw 2-D shapes 	<ul style="list-style-type: none"> compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes identify lines of symmetry in 2-D shapes presented in different orientations 	<ul style="list-style-type: none"> distinguish between regular and irregular polygons based on reasoning about equal sides and angles. use the properties of rectangles to deduce related facts and find missing lengths and angles 	<ul style="list-style-type: none"> draw 2-D shapes using given dimensions and angles compare and classify geometric shapes based on their properties and sizes illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
Autumn 3	Autumn 3	Summer 4	Summer 4	Summer 1	Summer 1

3-D shapes

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none">recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]	<ul style="list-style-type: none">recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]compare and sort common 3-D shapes and everyday objects	<ul style="list-style-type: none">make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them		<ul style="list-style-type: none">identify 3-D shapes, including cubes and other cuboids, from 2-D representations	<ul style="list-style-type: none">recognise, describe and build simple 3-D shapes, including making nets
Autumn 3	Autumn 3	Summer 4		Summer 1	Summer 1

Angles and lines

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		<ul style="list-style-type: none"> recognise angles as a property of shape or a description of a turn identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle identify horizontal and vertical lines and pairs of perpendicular and parallel lines 	<ul style="list-style-type: none"> identify acute and obtuse angles and compare and order angles up to two right angles by size identify lines of symmetry in 2-D shapes presented in different orientations complete a simple symmetric figure with respect to a specific line of symmetry 	<ul style="list-style-type: none"> know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles draw given angles, and measure them in degrees identify: <ul style="list-style-type: none"> angles at a point and one whole turn (total 360°) angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) other multiples of 90° 	<ul style="list-style-type: none"> find unknown angles in any triangles, quadrilaterals, and regular polygons recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
		Summer 4	Summer 4	Summer 1	Summer 1

Position and direction

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> describe position, direction and movement, including whole, half, quarter and three-quarter turns 	<ul style="list-style-type: none"> order and arrange combinations of mathematical objects in patterns and sequences use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) 		<ul style="list-style-type: none"> describe positions on a 2-D grid as coordinates in the first quadrant describe movements between positions as translations of a given unit to the left/right and up/down plot specified points and draw sides to complete a given polygon 	<ul style="list-style-type: none"> identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed 	<ul style="list-style-type: none"> describe positions on the full coordinate grid (all four quadrants) draw and translate simple shapes on the coordinate plane, and reflect them in the axes
Summer 3	Summer 4		Summer 6	Summer 2	Summer 2

Year 1 RTP Geometry

Ready to progress criteria	Block	Steps
1G-1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.	Autumn 3	<ol style="list-style-type: none">1 – Recognise and name 3-D shapes2 – Sort 3-D shapes3 – Recognise and name 2-D shapes4 – Sort 2-D shapes5 – Patterns with 2-D and 3-D shapes
1G-2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.	Autumn 3	<ol style="list-style-type: none">1 – Recognise and name 3-D shapes2 – Sort 3-D shapes3 – Recognise and name 2-D shapes4 – Sort 2-D shapes5 – Patterns with 2-D and 3-D shapes

Year 2 RTP Geometry

Ready to progress criteria	Block	Steps
2G-1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.	Autumn 3	<ol style="list-style-type: none">1 – Recognise 2-D and 3-D shapes2 – Count sides on 2-D shapes3 – Count vertices on 2-D shapes7 – Sort 2-D shapes8 – Count faces on 3-D shapes9 – Count edges on 3-D shapes10 – Count vertices on 3-D shapes11 – Sort 3-D shapes

Year 3 RTP Geometry

Ready to progress criteria	Block	Steps
3G-1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.	Summer 4	2 – Right angles
3G-2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.	Summer 4	6 – Parallel and perpendicular 8 – Draw polygons

Year 4 RTP Geometry

Ready to progress criteria	Block	Steps
4G-1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.	Summer 6	3 – Draw 2-D shapes on a grid 4 – Translate on a grid
4G-2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.	Spring 2	8 – Perimeter of regular polygons 9 – Perimeter of polygons
	Summer 4	4 – Triangles 5 – Quadrilaterals 6 – Polygons
4G-3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.	Summer 4	7 – Lines of symmetry 8 – Complete a symmetric figure

Year 5 RTP Geometry

Ready to progress criteria	Block	Steps
5G-1 Compare angles, estimate and measure angles in degrees ($^{\circ}$) and draw angles of a given size.	Summer 1	2 – Classify angles 3 – Estimate angles 4 – Measure angles up to 180° 5 – Draw lines and angles accurately
5G-2 Compare areas and calculate the area of rectangles (including squares) using standard units.	Spring 4	4 – Area of rectangles 5 – Area of compound shapes

Year 6 RTP Geometry

Ready to progress criteria	Block	Steps
6G-1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.	Spring 5	1 – Shapes - same area 2 – Area and perimeter 3 – Area of a triangle – counting squares 4 – Area of a right-angled triangle 5 – Area of any triangle 6 – Area of a parallelogram
	Summer 1	4 – Angles in a triangle 5 – Angles in a triangle – special cases 6 – Angles in a triangle – missing angles 7 – Angles in a quadrilateral 8 – Angles in polygons 10 – Draw shapes accurately