

Maths Progression Document Geometry Year 5 and 6

Reception Vocabulary

Properties of Shape shape, pattern, flat, curved, straight, round, hollow, solid

sort, make, build, draw, size, bigger, larger, smaller, symmetrical, pattern, repeating pattern, match

2D Shape corner, side, rectangle (including square), circle, triangle

3D Shape face, edge, vertex, vertices, cube, pyramid, sphere, cone

Position and direction Position, over, under, above, below, top, bottom, side, on, in, outside, inside, around, in front, behind, front, back, beside, next to, opposite, apart, between, middle, edge, corner, direction, left, right, up, down, forwards, backwards, sideways, across, next to, close, near, far, along, through, to, from, towards, away from, movement, slide, roll, turn, stretch, bend, whole turn, half turn

Year 1 Vocabulary

Properties of Shape Symmetry, symmetrical pattern

2D Shape Point, pointed, hexagon, pentagon, octagon

3D Shape Cuboid, cylinder

Position and Direction Underneath, centre, journey, quarter turn, three-quarter turn

Year 2 Vocabulary

Properties of Shape Surface, line symmetry

2D Shape Rectangular, circular, triangular (re-visit pentagon, hexagon, octagon)

3D Shape Prism

Position and Direction Route, higher, lower, Clockwise, anticlockwise, Right angle, straight line.

Year 3 Vocabulary

Properties of Shape construct

2D Shape pentagonal, hexagonal, octagonal, quadrilateral, right-angled, parallel, perpendicular

3D Shape Hemisphere, prism, triangular prism

Position and Direction compass point, north, south, east, west, N, S, E, W, horizontal, vertical, diagonal, angle ... is a greater/smaller angle than, acute angle, obtuse angle

Year 4 Vocabulary

Properties of shape Perimeter, centre, angle, right-angled, base, square-based, reflect, reflection, regular, irregular

2D Shape 2D, two-dimensional, oblong, rectilinear, equilateral triangle, isosceles triangle, scalene triangle, heptagon, parallelogram, rhombus, trapezium, Polygon

3D Shape 3D, three-dimensional, spherical, cylindrical, tetrahedron, polyhedron

Position and Direction north-east, north-west, south-east, south-west, NE, NW, SE, SW, translate, translation, rotate, rotation, degree, reflection, ruler, set square, angle measurer, compass

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Key Vocabulary	<p>Year 5 Vocabulary</p> <p>Properties of Shape radius, diameter, congruent, axis of symmetry, reflective symmetry</p> <p>2D Shape x-axis, y-axis, quadrant</p> <p>3D Shape octahedron</p> <p>Position and Direction Coordinate, protractor</p>	<p>Year 6 Vocabulary</p> <p>Properties of shape circumference, concentric, arc, net, open, closed, intersecting, intersection, plane</p> <p>2D Shape Kite</p> <p>3D Shape Dodecahedron, net, open, closed</p> <p>Position and Direction Reflex angle</p>
Year group	Year 5	Year 6
Key skills	<ul style="list-style-type: none"> • Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. • Use the properties of rectangles to deduce related facts and find missing lengths and angles. • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. • Draw given angles, and measure them in degrees. • Identify: 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° • 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"> • Draw 2-D shapes using given dimensions and angles. • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Compare and classify geometric shapes based on their properties and sizes and 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. • Describe positions on the full co-ordinate grid (all four quadrants) • Draw and translate simple shapes on the co-ordinate plane and reflect them in the axes.
Notes	<p>It is really important that children understand that 2-D shapes are actually flat and the manipulatives they handle in class are representations of the shapes (it is not possible to draw around 2D shapes – the image created on the paper is a 2D shape but what they draw around was 3D).</p> <p>Ensure we show shapes in different orientations and in different proportions.</p>	