

Misterton Primary and Nursery School – Maths: Geometry (Properties of Shapes) Progression Document

Key Areas	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Identifying Shapes and their Properties	Know how to name shapes	Know how to recognise and name common 2-D and 3-D shapes, including: * 2-D shapes [e.g. rectangles (including squares), circles and triangles] * 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].	Know how to identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Know how to identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Know how to identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]	Know how to identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces and line symmetry in a vertical line	Know how to identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]	Know how to identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Know how to recognise, describe and build simple 3-D shapes, including making nets (appears also in Drawing and Constructing) Know how to illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius

Drawing and Constructing				Know how to draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	Know how to complete a simple symmetric figure with respect to a specific line of symmetry	Know how to draw given angles, and measure them in degrees ($^{\circ}$)	Know how to 2-D shapes using given dimensions and angles recognise, describe and build simple 3-D shapes, including making nets (appears also in Identifying Shapes and Their Properties)
Comparing and Classifying			Know how to compare and sort common 2-D and 3-D shapes and everyday objects		Know how to compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	Know how to use the properties of rectangles to deduce related facts and find missing lengths and angles Know how to distinguish between regular and irregular polygons based on reasoning about equal sides and angles	Know how to compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons

Angles				Know how to recognise angles as a property of shape or a description of a turn Know how to 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 Know how to identify horizontal and vertical lines and pairs of perpendicular and parallel lines	Know how to identify acute and obtuse angles and compare and order angles up to two right angles by size	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Know how to 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°	Know how to recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
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