Maths Geometry Progression at Meanwood C of E Primary School

CURRICULUM SUBJECT:	Maths Geometry	SUBJECT LEADS:	Catherine Bowie
What are the Y6 end of school end goals?	To have a solid understanding of number and be confident using number in everyday situations To use basic maths to solve problems that involve application and thought To not fear maths and to see it as a gateway to improving understanding of the wider world To be able to use a range of strategies which provide recognised, reasonable solutions To have a can-do attitude to maths and be resilient when faced with difficult challenges		

How is the curriculum at Meanwood C of E Primary School sequenced towards these end points?

Geometry

2D Shape

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Recognise circles and triangles, composing and decomposing these shapes • Learn squares and rectangle have 4 straight sides and 4 corners **Autumn**	• recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles] **Autumn 3**	• 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 **Autumn 3**	• draw 2-D shapes **Summer 4**	• 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 **Summer 4**	• 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 **Summer 1**	• 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 **Summer 1**

3D Shape

• Matching objects and building with 3d shapes (cubes, cuboids, cylinders,	• recognise and name common 3-D shapes [for example, cuboids	• recognise and name common 3-D shapes [for example, cuboids (including cubes),	• make 3-D shapes using modelling materials; recognise 3-D		• identify 3-D shapes, including cubes and other	• recognise, describe and build simple 3-D

cones and spheres) **Spring**	(including cubes), pyramids and spheres] **Autumn 3**	pyramids and spheres] • compare and sort common 3-D shapes and everyday objects **Autumn 3**	shapes in different orientations and describe them **Summer 4**		cuboids, from 2-D representations **Summer 1**	shapes, including making nets **Summer 1**
Angles and Lines						
			• 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 **Summer 4**	• 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 **Summer 4**	• 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 ½ a turn (total 180°) ➢ other multiples of 90° **Summer 1**	• 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 1**

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Position and Direction						
• Select, rotate and manipulate shapes to develop spatial reasoning skills **Summer**	• describe position, direction and movement, including whole, half, quarter and three-quarter turns **Summer 3**	• 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) **Summer 4**		• 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 **Summer 6**	• 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 **Summer 2**	• 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 2**