Meath Green Junior School- Whole School Progression- Geometry: Properties of Shapes

| Our Intent: | | | | |
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| Maths at Meath Green Junior School is a subject that sparks curiosity, provides challenge and results in enjoyment through the children's processes and successes. We aim for the stigma of maths to be eradicated and replaced with children who are brave and resilient within their approaches to mathematical concepts, representations and problems. Our approaches ensure that children are actively involved in their learning and are passionate about their knowledge and achievements. | | | | |
| Developing knowledge | Year 3 | Year 4 | Year 5 | Year 6 |
| **Geometry: Properties of Shapes** | | | | |
| **Identifying shapes and their properties** | | | | |
| recognise and name common 2-D and 3- D shapes. (Year 1)<br><br>identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line<br><br>Use vocabulary<br><br>identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces<br><br>identify 2-D shapes on the surface of 3-D shapes | identify horizontal and vertical lines and pairs of perpendicular and parallel lines<br><br>recognise 3-D shapes in different orientations and describe them | identify lines of symmetry in 2-D shapes presented in different orientations | identify 3-D shapes, including cubes and other cuboids, from 2-D representations<br><br>distinguish between regular and irregular polygons based on reasoning about equal sides and angles | recognise, describe and build simple 3-D shapes, including making nets (appears also in Drawing and Constructing)<br><br>illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius |

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| **Drawing and Constructing** | | | | |
| | Draw 2-D shapes<br><br>Make 3-D shapes using modelling materials | complete a simple symmetric figure with respect to a specific line of symmetry | draw given angles, and measure them in degrees ( o ) NC objective for angles | draw 2-D shapes using given dimensions and angles |
| **Comparing and Classifying** | | | | |
| Compare and sort common 2-D shapes and everyday objects<br><br>Compare and sort 3-D shapes and everyday objects | | compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes | Use the properties of rectangles to deduce related facts and find missing lengths and angles | compare and classify geometric shapes based on their properties and sizes<br>Find unknown angles in any triangles, quadrilaterals, and regular polygons- NC objective for angles |
| **Understanding Angles** | | | | |
| Distinguish between a rotation as a turn and in terms of right angles for quarter, half and ¾ turns | recognise angles as a property of shape or a description of a turn | | know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles | |
| **Identifying Angles** | | | | |
| | 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 acute and obtuse angles and compare and order angles up to two right angles by size | identify:<br>* angles at a point and one whole turn (total 360 o )<br>* angles at a point on a straight line and ½ a turn (total 180 o ) | 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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| | identify whether angles are greater than or less than a right angle | | * other multiples of 90 degrees | Find unknown angles in any triangles, quadrilaterals, and regular polygons |
| | | | draw given angles, and measure them in degrees ( o ) | |