



Maths Progression Map– 2022

Geometry and statistics

Year group/ Expected level	Geometry			Statistics		
Nursery	- Talk about and explore 2D and 3D shapes (for example, circles, rectangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round' etc. - Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. (M) - Combine shapes to make new ones – an arch, a bigger triangle etc. (M) - Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc. (M) - Extend and create ABAB patterns – stick, leaf, stick, leaf. (M) - Notice and correct an error in a repeating pattern. (M)					
Reception	- Select, rotate and manipulate shapes in order to develop spatial reasoning skills. - Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. (M) - Continue, copy and create repeating patterns. (M)					
Year 1	Term 1 - Recognise and name common 2D shapes (triangle, square, rectangle, circle) - Describe 2D shapes using the language sides, corners and equal. - Make and continue patterns using shapes	Term 2 - Recognise and name common 3D shapes (cube, cuboid, cylinder, sphere, cone) - Describe 3D shapes - Find and describe number and shape patterns.	Term 3 Describe position, direction (below, above, next to, left, right) and movement, including whole, half, quarter and three-quarter turns	Term 1	Term 2	Term 3

Year 2	Term 1 - Identify and describe the properties of 2-D shapes, including the number of sides - Compare and sort common 2D shapes and everyday objects - Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line	Term 2 - Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces - Compare and sort common 3D shapes and everyday objects - Understand compass directions and use grids to describe direction - Order and arrange combinations of mathematical objects in patterns and sequences	Term 3 - Know what reflective symmetry is - Identify 2D shapes on the surface of 3D shapes - Find and describe a pattern - Use mathematical vocabulary to describe position, direction and movement - distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)	Term 1 - Sort objects giving a reason - Ask and answer simple questions by counting, sorting and recording - Collect and record data in a table - Collect and record data using a tally chart	Term 2 Make a block diagram	Term 3 - Collect and record data on a pictogram - Ask and answer questions about totalling and comparing data
Year 3	Term 1 - Name and draw 2D shapes - Find the perimeter of simple 2D shapes.	Term 2 - Make and recognise 3D shapes - Identify right angles (recognise angles as a description of a turn)	Term 3 - Recognise angles in a shape and as a description of a turn. - Identify horizontal, vertical, parallel and perpendicular lines (link to 2D shapes) - Understand compass directions and use grids to describe direction. - Sort shapes using Venn and Carroll diagrams.	Term 1 Collect and record data on a pictogram	Term 2 - Collect and record data using a frequency table. - Make a bar chart.	Term 3 - Sort using Venn and Carroll diagrams - Think of questions and answer them by sorting and organising data - Solve one and two step problems using statistical information.
Year 4	Term 1 - Compare and classify triangles- include isosceles, equilateral and scalene - Compare and classify regular and irregular quadrilaterals based on their properties and different sizes. (include rhombus, trapezium, parallelogram) - Identify right angled, acute and obtuse angles and compare and order angles by size.	Term 2 - Identify lines of symmetry in 2D shapes in different orientations. - Describe positions on a 2D grid as coordinates in the first quadrant - Recognise parallel and perpendicular lines in polygons.	Term 3 - Complete a simple symmetric figure with a line of symmetry at 45 and 90 degrees. - Understand compass directions and use grids to describe direction - Describe movements between positions as translations - Plot specified points and draw sides to complete a given polygon - Find and describe a pattern or relationship	Term 1 - Sort using a Carroll diagram or a Venn diagram - Make a bar chart	Term 2 - Understand how scale affects the reading of a bar graph - Make a line graph to show changes over time	Term 3 - Think of questions and answer them by collecting data and analysing it - Solve comparison, sum and difference problems using statistical information

Year 5	Term 1 - Distinguish between regular and irregular polygons (including vocabulary such as parallel and perpendicular) - Use the properties of rectangles to deduce related facts (e.g length is 5cm, width is 2cm. What is the perimeter?)	Term 2 - Know angles are measured in degrees, estimate and compare them - Identify angles at a point and created by turns (up to 360 degrees. Half turn = 180 degrees, $\frac{3}{4}$ turn = 270 degrees etc.) - Draw angles and measure them accurately in degrees - Identify 3D shapes from nets	Term 3 - Plot and interpret coordinates in the first quadrant - Identify, describe and represent the position of a shape following a reflection or translation - Work with shapes with up to two lines of symmetry accurately	Term 1	Term 2	Term 3 - Make a line graph - Complete, read and interpret tables - Solve comparison, sum and difference problems using information presented in a line graph - Draw and use a variety of forms of bar graphs and charts
Year 6	Term 1 - Recognise and build simple 3D shapes including making nets - Recognise and classify polygons	Term 2 - Draw 2D shapes using given dimensions and angles - Find unknown angles in 2D shapes	Term 3 - Illustrate and name parts of circles - Compare and classify geometric shapes - Recognise angles and find missing angles - Draw and translate and reflect shapes that are not parallel or perpendicular to the mirror line - Describe positions on the full coordinate grid - Translate, reflect and rotate shapes in all four quadrants	Term 1 Draw a line graph and use this to answer a question	Term 2 - Interpret and construct a pie chart - Calculate and interpret the mean as an average	Term 3 - Think of questions and answer them by collecting data and analysing it - Follow a statistical line of enquiry