

Geometry

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		2-D Shapes	3-D Shapes	Angles and Lines	Position and Direction
Development Matters	0 – 3				<p>Combine objects like stacking blocks and cups.</p> <p>Put objects inside others and take them out again.</p> <p>Climb and squeeze themselves into different types of spaces.</p> <p>Build with a range of resources.</p> <p>Complete inset puzzles.</p>
	3 – 4	<p>Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'</p> <p>Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc. Combine shapes to make new ones – an arch, a bigger triangle, etc.</p>	<p>Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'</p> <p>Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc. Combine shapes to make new ones – an arch, a bigger triangle, etc.</p>		<p>Understand position through words alone – for example, "The bag is under the table," – with no pointing.</p> <p>Describe a familiar route.</p> <p>Discuss routes and locations, using words like 'in front of' and 'behind'.</p>

	FS2	Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.	Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.		Select, rotate and manipulate shapes to develop spatial reasoning skills.
White Rose	Y1	Recognise and name common 2D shapes.	Recognise and name common 3D shapes.		Describe position, direction and movements including whole, half and quarter turns.
	Y2	Identify and describe the properties of 2D shapes. Identify 2D shapes on the surface of 3D shapes. Compare and sort common 2D shapes on everyday objects.	Recognise and name common 3D shapes. Compare and sort common 3D shapes and everyday objects.		Order and arrange combinations of objects in patterns and sequences. Use mathematical language to describe position, direction and movement.
	Y3	Draw 2D shapes.	Make 3D shapes using modelling materials. Recognise 3D shapes in different orientations.	Recognise angles as properties of a shape or description of a turn. Identify right angles and recognise 2 make a half turn, 3 make a three-quarter turn and 4 a complete turn. Identify horizontal and vertical lines and pairs of parallel and perpendicular lines.	
	Y4	Compare and classify geometric shapes based on their properties and sizes. Identify lines of symmetry in 2D shapes.		Identify, compare and order acute and obtuse angles. Identify lines of symmetry in 2D shapes.	Use coordinates to describe positions on 2D grid in the first quadrant. Describe the movements between positions as translations. Plot specified points to complete a given polygon.

	Y5	Distinguish between regular and irregular polygons based on equal sides and angles. Use the properties of rectangles to deduce related facts and find missing lengths.	Identify 3D shapes from 2D representations.	Know angles can be measured in degrees. Estimate and compare acute, obtuse and reflex angles. Draw given angles and measure them in degrees. Identify angles at a point, on a straight line and other multiples of 90 degrees.	Identify, describe and represent the position of a shape following reflection or translation and know that the shape has not changed.
	Y6	Draw 2D shapes using given dimensions and angles. Compare and classify geometric shapes based on their properties and sizes. Illustrate and name parts of circles and know the diameter is twice the radius.	Recognise, describe and build simple 3D shapes including making nets.	Find unknown angles in triangles, quadrilaterals and regular polygons. Recognise angles where they meet at a point are on a straight line or are vertical opposite and find missing angles.	Describe positions on all 4 quadrants. Draw and translate simple shapes on the coordinate plane and reflect then in the axis.
	KS3	Calculate the area and perimeter of a variety of 2D and compound shapes, including triangles using a formula.	Represent 3D shapes in 2D. Use the properties and vocabulary of 3D shapes and their nets to solve problems.	Recognise, describe and name all common 2D shapes and apply angle facts to solve a variety of problems.	Work with shapes on a 4 quadrant grid to translate, reflect and rotate in any direction or plane.

		<p>Recognise, describe and name all common 2D shapes and apply angle facts to solve a variety of problems. Use a ruler and a protractor to draw accurately.</p>			
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