Waddington All Saints Academy
A L.E.A.D. Academy

Planning overview

(We aim to teach in a creative way and to ensure that pupils make connections with maths and the wonder of the world, therefore teachers will pick objectives to fit with other areas of the curriculum. The organisation is for guidance purposes and progression).

Geometry

	Autumn Term	Spring Term	Summer Term
Y1 Skills- geometry: apply, estimate, connect, use, solve, interpret, conjecture, analyse, investigate, conclude.			
	Knowledge	Knowledge	Knowledge
1	1. recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles].	1. recognise and name common 2-D and 3-D shapes, including: 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].	1. describe position, direction and movement, including whole, half, quarter and three-quarter turns.

	Autumn Term	Spring Term	Summer Term
Y2 Skills- geometry: apply, estimate, connect, use, solve, interpret, conjecture, analyse, investigate, conclude.			
	Knowledge	Knowledge	Knowledge
2	1.identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.	1.identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. 2. identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] 3. compare and sort common 2-D and 3-D shapes and everyday objects.	1. order and arrange combinations of mathematical objects in patterns and sequences 2.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). 2

	Autumn Term	Spring Term	Summer Term
Y3 Skills- geometry: apply, estimate, connect, use, solve, interpret, conjecture, analyse, investigate, conclude.			
	Knowledge	**Knowledge**	**Knowledge**
3	1.draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	1.recognise angles as a property of shape or a description of a turn 2. 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	1. identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

	Autumn Term	Spring Term	Summer Term
Y4 Skills- geometry: apply, estimate, connect, use, solve, interpret, conjecture, analyse, investigate, conclude.			
	Knowledge	**Knowledge**	**Knowledge**
4	1. identify lines of symmetry in 2-D shapes presented in different orientations 2.complete a simple symmetric figure with respect to a specific line of symmetry. 2	1.compare and classify geometric shapes, including quadrilaterals and triangles**,** based on their properties and sizes 2. identify acute and obtuse angles and compare and order angles up to two right angles by size	1. describe positions on a 2-D grid as coordinates in the first quadrant 2.describe movements between positions as translations of a given unit to the left/right and up/down 3.plot specified points and draw sides to complete a given polygon.

	Autumn Term	Spring Term	Summer Term
Y5 Skills- geometry: apply, estimate, connect, use, solve, interpret, conjecture, analyse, investigate, conclude.			
	Knowledge	**Knowledge**	**Knowledge**
5	1.identify 3-D shapes, including cubes and	1.know angles are measured in degrees: estimate and	3. identify, describe and represent the position

	other cuboids, from 2-D representations. distinguish between regular and irregular polygons based on reasoning about equal sides and angles.	compare acute, obtuse and reflex angles 2.draw given angles, and measure them in degrees (^{o}) 3.identify: angles at a point and one whole turn (total 360°) angles at a point on a straight line and a turn (total 180°) $\square$ other multiples of 90° 2 1	of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

	Autumn Term	Spring Term	Summer Term
Y6 Skills- geometry: apply, estimate, connect, use, solve, interpret, conjecture, analyse, investigate, conclude.			
	Knowledge	**Knowledge**	**Knowledge**
6	1.draw 2-D shapes using given dimensions and angles 2.recognise, describe and build simple 3-D shapes, including making nets 3. compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons 4. recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	1. illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	1. describe positions on the full coordinate grid (all four quadrants) 2. draw and translate simple shapes on the coordinate plane, and reflect them in the axes.