Strand – Geometry – Position, direction and movement

Rationale

This is another smaller strand of maths but helps children gain important skills. Geometry allows students to connect mapping objects in the classroom to real-world contexts regarding direction and place. Understanding of spatial relationships is also considered important in the role of problem solving and higher-order thinking skills.

Learning

Position, direction and movement

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
describe position, direction and movement, including half, quarter and three-quarter turns.	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)		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	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	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.
			plot specified points and draw sides to complete a given polygon		

Pattern

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

	order and arrange combinations of mathematical objects in patterns and sequences			

Key Vocabulary

position over, under, underneath above, below, top, bottom, side on, in, outside, inside, around in front, behind, front, back before, after, beside, next to opposite, apart between, middle, edge, centre corner direction journey, route, map, plan left, right up, down, higher, lower forwards, backwards, sideways, across	close, far, near along, through, to, from, towards, away from ascend, descend grid, row, column origin, coordinates clockwise, anti-clockwise compass point, north, south, east, west (N, S, E, W) north-east, north-west, south-east, south-west (NE, NW, SE, SW) horizontal, vertical, diagonal parallel, perpendicular x-axis, y-axis quadrant movement	slide, roll whole turn, half turn, quarter turn, rotate, rotation angle, …is a greater/smaller angle than right angle, acute, obtuse, reflex degree straight line stretch, bend ruler, set square angle measurer, compasses, protractor