Sacred Heart Catholic Primary School
Progression: Geometry: position and direction
Programme of study (statutory requirements)

YN	YR	Early Learning Goals	Y1	Y2	Y3	Y4	Y5	Y6
Geometry: position and direction Pupils should be taught to: • Understand position through words alone eg "The bag is under the table" with no pointing • Describe a familiar route • Discuss routes and locations , using words like in front of and behind • Stages of understanding repeated patterns - continue AB pattern - copy AB pattern - make own AB	**Geometry: position and direction** Pupils should be taught to: • Select, rotate and manipulate shapes in order to develop spatial reasoning skills • To describe position, direction and movement including forwards, backwards, sideways, in front, behind, under, over, beside, next to, in between. • To begin to introduce	ELG: They recognise, create and describe patterns.	**Geometry: position and direction** Pupils should be taught to: • describe position, direction and movement, including whole, half, quarter and three-quarter turns	**Geometry: position and direction** Pupils should be taught to: • order and arrange combinations of mathematical objects in patterns and sequences • 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		**Geometry: position and direction** Pupils should be taught to: • 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 • plot specified points and draw sides to complete a given polygon	**Geometry: position and direction** Pupils should be taught to: • 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	**Geometry: position, and direction** Pupils should be taught to: • 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

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pattern - spot errors in an AB pattern - can identify the unit of repeat e.g. this is a red-blue pattern	left and right. • Stages of understanding repeated patterns cont. - continue, copy, make own ABC pattern - continue a pattern that has ended mid-unit of repeat - can do the above with a range of patters e.g. ABB, ABBC, AABB • can begin to symbolise unit structure of a pattern the letter R for the red dinosaur • can begin to explain the rule of a pattern and then create another pattern with the same rule. • Can begin to make patterns that are not linear e.g. around a			angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)				

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	circle, or a border with fixed number of spaces							

Notes and guidance (non-statutory)

Y1	Y2	Y3	Y4	Y5	Y6

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Geometry: position and direction Pupils use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside. Pupils make whole, half, quarter and three-quarter turns in both directions and connect turning clockwise with movement on a clock face.	**Geometry: position and direction** Pupils should work with patterns of shapes, including those in different orientations. Pupils use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (for example, pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots using instructions given in right angles).		**Geometry: position, and direction** Pupils draw a pair of axes in one quadrant, with equal scales and integer labels. They read, write and use pairs of coordinates (2, 5) including using coordinate-plotting ICT tools.	**Geometry: position and direction** Pupils recognise and use reflection and translation in a variety of diagrams, including continuing to use a 2-D grid and coordinates in the first quadrant. Reflection should be in lines that are parallel to the axes.	**Geometry: position and direction** Pupils draw and label a pair of axes in all four quadrants with equal scaling. This extends their knowledge of one quadrant to all four quadrants, including the use of negative numbers. Pupils draw and label rectangles (including squares), parallelograms and rhombuses, specified by coordinates in the four quadrants, predicting missing coordinates using the properties of shapes. These might be expressed algebraically for example, translating vertex (a, b) to (a-2, b+3); (a, b) and (a+d, b+d) being opposite vertices of a square of side d.

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