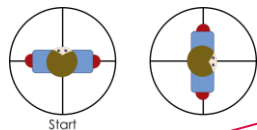




Geometry – Position and direction: Overview

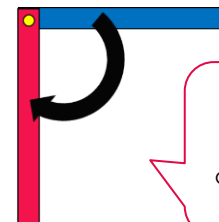
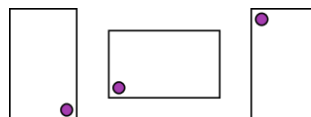
Concepts: Describing position, Describing turn/movement, Pattern

Finish the pattern...



The man has turned a one quarter turn clockwise

Finish the pattern.
Describe what is happening.



I have used my angle maker and the top piece of card has made a quarter turn. It has made a right angle.

Reception

- To use mathematical language to describe position
- Select, rotate and manipulate shapes to develop spatial reasoning skills.
- Continue, copy and create repeating patterns

Year 1

- Describing position and direction using mathematical language including left and right.
- Describing movement, including half, quarter and three-quarter turns.
- Recognise and create repeating patterns

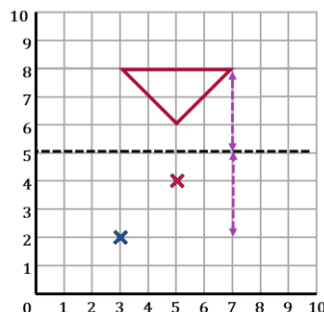
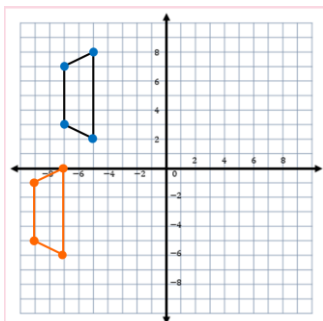
Year 2

- Continue to describe position and direction using mathematical language
- Describe movement using mathematical language 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)
- Order and arrange combinations of mathematical objects in patterns and sequences

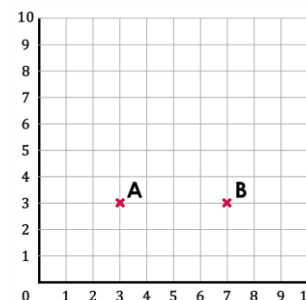
Year 3

- Make connections between quarter turns and half turns to right angles.

Describe the translation. Identify the new coordinates



Reflect the shape through the mirror lined



Point __ is translated __ units up/ down/left/right to point __.

Year 6

- Describe positions on the full coordinate grid (all 4 quadrants)
- Draw and translate simple shapes on the coordinate plane, and reflect them in the axes

Year 5

- Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language
- Understand that the size and shape of an object does not change under translation and reflection

Year 4

- Describe positions on a 2-D grid as coordinates in the first quadrant
- Plot specified points and draw sides to complete a given polygon
- Describe movements between positions as translations of a given unit to the left/right and up/down
- Solve problems involving patterns



Geometry – Position and direction : Concept breakdown

	Reception	→	Year 1	→	Year 2	→	Year 3	→	Year 4	→	Year 5	→	Year 6
Position, direction and movement													
Describing position	Use mathematical language to describe position e.g. next to, in front, behind, between Unit 6		Pupils use the language of position, direction, 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. Unit 3		Use mathematical vocabulary to describe position and direction Unit 11		Pupils should continue to consolidate describing position and direction in Maths Meetings		Describe positions on a 2-D grid as coordinates in the first quadrant Unit 12 Plot specified points and draw sides to complete a given polygon Unit 12		Pupils continue to consolidate describing coordinates in the first quadrant and are introduced to other quadrants on the coordinates grid Unit 9		Describe positions on the full coordinate grid (all 4 quadrants) Unit 8
Describing movements/transformations	Select, rotate and manipulate shapes to develop spatial reasoning skills Unit 6 Unit 13		Describe position, direction and movement, including half, quarter and three-quarter turns. Unit 3 Unit 10		Use mathematical vocabulary to describe 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) Unit 11		Recognise angles as a property of shape or a description of a turn (Properties of Shape NC strand) Unit 10		Describe movements between positions as translations of a given unit to the left/right and up/down Unit 12		Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language Unit 9 Understand that the size and shape of an object does not change under translation and reflection Unit 9		Draw and translate simple shapes on the coordinate plane, and reflect them in the axes Unit 8
Pattern													
Describing pattern	Continue, copy and create repeating patterns Unit 2		Recognise and create repeating patterns Unit 3		Order and arrange combinations of mathematical objects in patterns and sequences Unit 11		Pupils should continue to consolidate describing and creating patterns Maths Meetings		Solve problems involving patterns Unit 13		Pupils should continue to consolidate solving problems involving patterns in Maths Meetings		Generate and describe linear number sequences Unit 3