

# MATHS

## PROGRESSION:

### Geometry— Position and Direction

#### Key:

Counting (intervals)

Identifying, Representing & Estimating , checking

Comparing

Problem solving & Reasoning

Mental arithmetic and known facts

Drawing and labelling

Plotting

- ◆ Use developed language to describe the movement, direction and position of an object/shape

- ◆ Distinguish between straight movement and rotational movement (turn) knowing the difference between clockwise and anti-clockwise (show actual body movement and turn)

- ◆ Arrange and position a variety of objects in a particular way to show pattern and sequence

- ◆ Reason the pattern using the correct math-

## YEAR 2

- ◆ Describe position of objects and representations; next to, behind, above , below

## RECEPTION

## YEAR 1

- ◆ Use the movement of clockwise using a clockface
- ◆ Develop the correct vocabulary inc. near, between, forwards, backwards , inside and outside

## YEAR 4

- ◆ Describe positions on a 2-D grid as co-ordinates in the first quadrant

- ◆ Describe movement on a grid as translations that have moved up, down, left right any given amount of squares
- ◆ Plot specific points using co-ordinates
- ◆ Create/complete any given polygon from a set of co-ordinates
- ◆ Draw and label a scaled grid / first quadrant with equal intervals and accurately drawn axis; successfully plot and join points on the grid to complete shapes

- ◆ Describe the position, direction and movement of a shape
- ◆ Describe the turn of a shape in terms of quarter, half and three-quarter turn

- ◆ Describe position on a grid with all four quadrants (co-ordinates). Know which quadrant is which
- ◆ Draw/ construct four quadrant grids inc. the application of negative number scales (equal)

- ◆ Accurately draw shapes following a translation or reflection as part of the process of completing shapes/problems
- ◆ Know which quadrant the shape must be in based on the positive/negative nature of the co-ordinates
- ◆ Know that shapes can cross-over into neighbouring quadrants ; know how to identify this

## YEAR 5

- ◆ Identify and describe the position and movement of a shape following a reflection or translation

- ◆ Know that a shape does not change it's fundamental properties following a reflection or translation

- ◆ Identify and apply the use of reflection and translation in relation to various diagrams.
- ◆ Draw and label grids with different scaled intervals
- ◆ Interpret complete diagrams and grids in order that problem solving and reasoning deepens understanding
- ◆ Successfully reflect on lines that are parallel to the axis

## YEAR 6

- ◆ Rotate shapes from a given point
- ◆ Use knowledge of turn (degrees of) to explain and check the rotation has been completed correctly

- ◆ Problem solve and reason using knowledge of position and direction
- ◆ Use knowledge of shape to reason and justify correct / incorrect plotting of co-ordinates inc. missing co-ordinates