## Step 4: Describe Movement

## National Curriculum Objectives:

Mathematics Year 4: (4P2) Describe movements between positions as translations of a given unit to the left/right and up/down
Mathematics Year 4: (4P3a) Describe positions on a 2-D grid as coordinates in the first quadrant

## Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Determine which grid correctly describes the one-step translations (left, right, up or down) of singular points on a 2D grid. All points plotted on a 5x5 grid (using 1:1 scale).
Expected Determine which grid correctly describes the two-step translations of singular points on a 2D grid. All points plotted on a $10 \times 10$ grid (using 1:1 scale).
Greater Depth Determine which grid supports the two-step translations of singular points. All points plotted on a $10 \times 10$ grid where the scale goes up in increments of 8.

Questions 2, 5 and 8 (Varied Fluency)
Developing Describe the position of two shapes to support one-step translations (left, right, up or down) of singular points on a 2D grid. All points plotted on a $5 \times 5$ grid, using $1: 1$ scale. Expected Describe the two-step translation of two shapes plotted on a 2D grid. All points plotted on a $10 \times 10$ grid, using 1:1 scale.
Greater Depth Describe the position of different shapes to support two-step translations of singular points. All shapes plotted on a $10 \times 10$ grid where the scale goes up in increments of 4.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Determine if a statement is correct to support one-step translations (left, right, up or down) of singular shapes on a 2D grid. All shapes plotted on a $5 \times 5$ grid, using 1:1 scale.
Expected Determine if a statement is correct to support two-step translations of singular shapes on a 2D grid. All shapes plotted on a $10 \times 10$ grid, using $1: 1$ scale.
Greater Depth Determine if a statement is correct to support two-step translations of singular shapes. All shapes plotted on a $10 \times 10$ grid where the scale goes up in increments of 6 .

## More Year 4 Position and Direction resources.

Did you like this resource? Don't forget to review it on our website

## Describe Movement

1. Which of these grids shows a translation of 3 left?

2. Complete the sentences to show the translation between the shapes.
A. $\bigcirc$ to $\diamond$ has moved 4 $\qquad$ .
B. $K$ to $\Delta$ has moved 2 $\qquad$ .
C. $\square$ to $\square$ has moved $\qquad$ .
D. $Q$ to $\sum_{\checkmark}$ has moved $\qquad$ .


HW/Ex
3. Simon is translating shapes on a grid. He says,


## Describe Movement

4. Which of these grids shows a translation of 5 right and 3 up?
A.


5. Complete the sentences to show the translation between the shapes.

6. Suzie is translating shapes on a grid. She says,


If shape $A$ is translated 5 up, it will be on same $y$ axis as shape $B$.

Is Suzie correct? Convince me!


## Describe Movement

7. Which of these grids shows a translation of 56 left and 32 up?
A.


8. Complete the sentences to show the translation between the shapes.

9. Benson is translating shapes on a grid. He says,


## Homework/Extension

## Describe Movement

## Developing

1. A
2. A: up; B: down; C: 2 left; D: 2 down.
3. Yes because when shape $B$ is translated the coordinates are $(1,4)$ and $A$ is $(2,4)$, so they have the same $y$ coordinate.

## Expected

4. B
5. A: 1 right and 7 up; B: 2 right and 4 up; C: 6 right and 1 up; D: 2 left and 7 down.
6. No because when shape $A$ is translated 5 up the new coordinates are ( 2,7 ). Shape B coordinates are $(7,6)$, so they have a different $y$ coordinate.

## Greater Depth

7. A
8. A: 28 right and 16 up; B: 4 left and 24 down; C: 12 left and 8 up; D: 24 right and 28 up. 9. Yes because when shape $A$ is translated 24 right and 30 down the new coordinates are $(36,12)$ and shape $B$ is on $(36,6)$, so they have the same $x$ coordinate.
