

# Year 6 Position and Direction Knowledge Organiser



## Star Vocabulary

<b>quadrant</b>	one of the four equal parts in a graph
<b>translate</b>	Moving a shape without rotating or flipping it.  The shape still looks exactly the same, just in a different place.
<b>x-axis</b>	The line on a graph that runs horizontally (left-right) through zero.
<b>y-axis</b>	The line on a graph that runs vertically (up-down) through zero.
<b>horizontal</b>	Going side-to-side, like the horizon.
<b>vertical</b>	In an up-down direction or position. Upright.
<b>reflection</b>	An image or shape as it would be seen in a mirror.
<b>vertex</b>	A point where two or more line segments meet. A corner.

Plotting coordinates in the first quadrant  
Properties of shape

Identify coordinates that form the vertices of a range of common shapes in all four quadrants.

## Plotting Coordinates

**Share**

a) I think coordinates can also have negative values.

I remember that I should read the x-axis coordinate first, and then the y-axis coordinate.

## Translations and Reflections

**Translate** means you move the vertices of the shape according to the instructions you are given.

I am going to move each point one at a time, and then join the points to make my shape.

b) Start by moving point A. Move it 4 left first and then 5 down. Do the same with the other points.

Join up the points in order to make the new shape.

The new coordinates are:  
E is at (-3,-2)  
F is at (-1,-2)  
G is at (0,0)  
H is at (-2,1)

## Sentence Stems

It can't be...  
because...  
I noticed that...  
It must be ...  
because...  
If...then...  
This is different because...  
This is the same because...

**Misconceptions:**  
*Go along the corridor then up the stairs.*

I remember that I should read the x-axis coordinate first, and then the y-axis coordinate.

## Factual & Conceptual Fluency progression

Addition and subtraction within 10.

Secure and maintain fluency in addition and subtraction within and across 10, through continued practice.

Recall the 2, 4 and 8 multiplication tables, and corresponding division facts.

Recall the 7-multiplication table, and corresponding division facts.

Addition and subtraction across 10.

Recall the 10 and 5 multiplication tables, and corresponding division facts.

Recall the 3, 6 and 9 multiplication tables, and corresponding division facts.

Recall the 11 and 12 multiplication tables, and corresponding division facts.

Secure and maintain fluency in all multiplication tables, and corresponding division facts, through continued practice.