

Grids and Co-ordinates: Maths : Year 6 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to read and plot co-ordinates in the first quadrant.	Children will recap the features of co-ordinate grids, then identify, plot and connect coordinates in the first quadrant to describe shapes. Some children may also identify and plot co-ordinates in all four quadrants.	<ul style="list-style-type: none"> • Can the children read and plot co-ordinates in the first quadrant? • Can they use co-ordinates in the first quadrant to draw, locate and complete shapes? • Can they use co-ordinates in the four quadrants to draw, locate and complete shapes? 	<ul style="list-style-type: none"> • Slides • Worksheet 1A/1B/1C • Resource Sheet A/B/C
Lesson 2	To be able to use co-ordinates in the first quadrant to draw, locate and complete shapes that meet given properties.	Children will visualise, then plot co-ordinates which, when connected, describe shapes or symmetrical patterns with given properties (1st quadrant only).	<ul style="list-style-type: none"> • Can the children read and plot co-ordinates in the first quadrant? • Can they use co-ordinates in the first quadrant to draw, locate and complete shapes? • Can they use co-ordinates in the four quadrants to draw, locate and complete shapes? 	<ul style="list-style-type: none"> • Slides • Blank First Quadrant sheet • Mini whiteboards • Worksheet 2A/2B/2C/2D/2E • Challenge Cards (FSD? activity only)
Lesson 3	To be able to visualise and draw in the four quadrants where a shape will be after reflection.	Children will learn how to transform shapes plotted on the first quadrant by reflecting them in all three of the other quadrants.	<ul style="list-style-type: none"> • Could the children reflect a simple shape? • Could they reflect a simple shape in different quadrants? • Could they reflect more complex shapes in each of the four quadrants? 	<ul style="list-style-type: none"> • Slides • Blank Four Quadrant sheet • Worksheet 3A/3B/3C • Squared paper • Challenge Sheets (FSD? activity only)
Lesson 4	To be able to visualise and draw on grids of different types where a shape will be after translation.	Children will learn how to translate a shape described in the first quadrant into the other three quadrants. Most children will describe translations within a single plane (e.g. vertical or horizontal); some will describe two-step translations (diagonal).	<ul style="list-style-type: none"> • Could the children perform a simple one-step translation? • Could they do two-step translations? • Could they describe how shapes have been translated? 	<ul style="list-style-type: none"> • Slides • Worksheet 4A/4B/4C • Squared paper • Challenge Cards (FSD? activity only) • Blank Four Quadrant sheet (FSD? activity only)
Lesson 5	To be able to visualise and draw on grids of different types where a shape will be after rotation through 90 or 180 degrees about its centre or about one of its vertices.	Children will visualise, then draw rotated shapes on squared paper (either rotated around a vertex or around the centre of the shape).	<ul style="list-style-type: none"> • Can the children rotate a simple shape 90 degrees? • Can they rotate shapes 90 and 180 degrees? • Can they rotate shapes around any point? 	<ul style="list-style-type: none"> • Slides • Worksheet 5A/5B/5C • Squared paper • Picture Cards (FSD? activity only)