Maths Knowledge Organiser

| Coordinates | | | Real Life Graphs | |
|----------------------------------|---|---|------------------|---|
| Coordinates | Written in pairs . The first term is the x-coordinate (movement across). The second term is the y- coordinate (movement up or down) | A: (4,7) B: (-6,-3) A: (4,7) B: (-6,-3) A: (4,7) B: (-6,-3) | Real Life Graphs | Graphs that are supposed to model some real situation. The actual meaning of the values depends on labels and units on each axis. The gradient might have a contextual meanin The y-intercept might have a contextual mear The area under the graph might have a context |
| incor Cronho | | | | meaning. |
| Linear Graphs Linear Graph | Straight line graph. The equation of a linear graph can contain an x- term, a y-term and a number. | Example: Other examples: x = y y = 4 x = -2 y = 2x - 7 y + x = 10 2y - 4x = 12 | | |
| Gradient and Intercept | <pre>y = mx + c Gradient (m) is the steepness of the line. From a graph, find how many squares up/down the graph moves for every one square right. Intercept (c) = Where the line crosses the y-axis. Also called the y-intercept</pre> | Gradient = 3 Intercept = -1 Equation: $y = 3y = 1$ | Conversion Graph | A line graph to convert one unit to another . Can be used to convert units (eg. miles and kilometres) or currencies (\$ and £) |
| Horizontal and Vertical lines | Line $x = ?$ is a vertical line . Line $y = ?$ is a horizontal line . | Equation: $y = 3x - 1$ | | Find the value you know on one axis, read up/across to the conversion line and read the equivalent value from the other axis. |

y = -2

8B2b: Graphing



