



- Function
- Quadratic
- Cubic
- Reciprocal
- Gradient
- intercept
- Acceleration
- Linear
- Parabola
- Asymptote

- Plot straight-line graphs
- **Interpret gradients and intercepts of linear functions**
- Recognise, sketch and interpret graphs of linear functions
- **Recognise graphs of quadratic functions**
- Plot and interpret graphs of kinematic problems.

- Identify and interpret gradients and intercepts of linear functions algebraically
- **Use the form  $y = mx + c$  to identify parallel lines**
- Find the equation of the line through two points/one point with a gradient
- **Interpret the gradient of a straight line graph as a rate of change**
- Recognise, sketch and interpret graphs of quadratic/cubic/reciprocal functions
- **Plot and interpret graphs (including reciprocal graphs and non-standard functions) in real contexts, to find approximate solutions to problems such as simple kinematic problems.**

## Algebraic Proficiency : Visualising - Targets

	Before Topic	After Topic	Teacher Mark
Identify and interpret gradients <b>and intercepts</b> of linear functions, use $y = mx + c$ to identify parallel lines.			
Find the equation of a line through one point with a given gradient; when given two points			
Interpret the gradient of a straight line graph as a rate of change			
Use a graph to find the approximate solution to a linear equation			
Be able to find the gradient of a perpendicular line when given the equation of a line. Understand what this means			
Use the equation of a graph to determine if they are perpendicular.			
Plot graphs of quadratic functions, cubic and reciprocal functions. Recognise, interpret and sketch these graphs.			
Plot and interpret graphs of non-standard functions in real contexts			
<b>Find approximate solutions to kinematic problems.</b>			
<b>Be able to draw and use a conversion graph when given a conversion. Convert between measurements</b>			
<b>Be able to draw and interpret a distance time graph, knowing what horizontal sections and the gradient means</b>			
<b>Draw a missing line on a distance-time graph; calculate an average speed; a speed for a particular section</b>			
<b>Be able to interpret other linear real life graphs, such as mobile phones or equipment hire</b>			
<b>Draw other linear real life graphs when given data in a table, or given a formula; Match a formula to a graph</b>			



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