



Subject	Year	Term
Mathematics (Foundation)	11	1
Topic		
Graphs, Algebraic Methods and Functions		
Content (Intent)		
Prior Learning (Topic):	Equations of straight lines, collecting like terms, solving equations	
- Gradients and lines - Nonlinear graphs - Using graphs - Expanding and factorising - Changing the subject - Functions		
Future Learning (Topic)	Problem solving	
What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)	
- Plotting straight line graphs - Finding equations of straight lines from graphs, coordinates and/or gradients	<u>Ongoing Assessment</u> - Q&A in plenary - Mini-whiteboards - Self and Peer assessment - One online homework per week - End of unit tests	
- Plot and interpret quadratic, cubic and reciprocal graphs - Recognise graph shapes - Identify and interpret roots and intercepts of quadratics		
- Construct and interpret conversion graphs, distance time graphs, speed time graphs, piece wise graphs - Recognise and interpret graphs of direct and inverse proportion		
- Expand brackets (Single and Binomials) - Factorise (Single and Quadratics) - Solve quadratic equations by factorising		
- Form and solve linear equations and inequalities - Changing the subject of formulae	<u>Formal Assessment</u> Pre Mock in October	
- Using function machines - Substituting into expressions and formulae (using Kinematic formulae too)		
- Understand graphs of quadratic functions - Understand and use trigonometric functions		
How can parents help at home?		
Help to learn 'need-to-know' formulas Encourage use of SparxMaths [or MathsGenie] Review previously taught topics regularly		
Helpful further reading/discussion (including Reading and Vocabulary Lists)		
Reading Direct to the following websites; Sparkmaths.com www.mathsgenie.co.uk	Vocabulary Lists Gradient Quadratic Cubic Reciprocal Speed Distance	Time Expand Factorise Solve Inequalities Subject Substitution