

Subject: Mathematics

Year 9

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
What are we studying? (Big idea/question(s))					
<ul style="list-style-type: none"> • Straight line graphs • Forming and solving equations • Inequalities • Re-arranging formulae • Testing conjectures 	<ul style="list-style-type: none"> • Three dimensional shapes • Plans and elevations • Surface area and volume • Constructions and congruency • Angle and line bisectors 	<ul style="list-style-type: none"> • Fractions, decimals and percentages • Standard form • Directed numbers • Reverse percentages • Repeated percentage change • Maths and money 	<ul style="list-style-type: none"> • Deduction • Reflection • Rotation • Translation • Pythagoras' Theorem 	<ul style="list-style-type: none"> • Enlargement • Similarity • Ratio • Direct and inverse proportion • Best buys 	<ul style="list-style-type: none"> • Probability • Tree diagrams • Conditional probability • Relative frequency • Quadratic graphs • Represent inequalities
Why are we studying this? (skills, purpose or progression)					
To develop fluent knowledge, skills and understanding of mathematical methods and concepts.	To acquire, select and apply mathematical techniques to solve problems.	To be able to manipulate numbers. To develop fluent knowledge, skills and understanding of mathematical methods and concepts.	To reason mathematically, make deductions and inferences, and draw conclusions.	To comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context.	To reason mathematically, make deductions and inferences, and draw conclusions.
These mathematics skills include problem solving, building resilience and independent thinking. These are crucial skills for the work place and further education.					
How will this be assessed?					
We assess pupils regularly through the work produced in lessons. At the end of a block of teaching, pupils will complete a small assessment to check understanding. Pupils will complete a RAG analysis, highlighting strengths and areas that need more time. This will then feed into future lessons and what we set for homework. Pupils will complete a mid-year examination after the first term and an end-of-year examination during the Summer 2 half term.					

RWCM	Reading the question carefully and underlining key words and important information. Deciphering a block of text to decide what mathematics to use.
Extra-curricular experiences	Junior Maths Challenge – a national competition run by the University of Leeds.
Careers Links	Financial careers (eg. Accountancy and banking), engineering, ICT roles, statistician, economist,...
Independent Learning	Sparx Maths will be set weekly on consolidation and areas that have been highlighted from our assessments. These will be completed online (www.sparxmaths.uk) and the students will make notes in their homework books.
Essential Equipment	Basic school equipment (pen, pencil, ruler, eraser, green pen) and a scientific calculator .