

## Mathematics – Y9 Transition

Mathematics is a hugely important subject that is both fascinating and interesting, while also underpinning a vast number of careers and allowing you to be financially literate throughout your life. Through the course you will explore five core subject themes of number, algebra, ratio, geometry and probability and statistics. The table below summarises the assessment percentage of each strand at GCSE:

Topic Area	Foundation Tier (%)	Higher Tier (%)
Number	25	15
Algebra	20	30
Ratio	25	20
Geometry	15	20
Probability and statistics (combined)	15	15

By studying mathematics you will gain knowledge in these five strands, but also the transferable skills of problem solving, reasoning, resilience, collaboration and determination that equip you whatever your study goals. GCSE mathematics will directly help you with your studies in other subject areas, like Science, Geography, DT, Engineering, PE, Music...the list goes on!

<b>Preparation</b>	<ul style="list-style-type: none"> <li>✓ <b>Stay motivated and engaged in your studies.</b> Mathematics is a huge and complex area of study, The more knowledge, confidence, and problem-solving skills you gain now in Y9 the easier you will find it at GCSE. GCSE maths builds on your knowledge and skills from Y7-9, so the more you learn now the better!</li> <li>✓ <b>Be equipped</b> (pen, pencil, ruler, calculator suitable for GCSE – ask your teacher if unsure, protractor, compass)</li> <li>✓ <b>Work on topics that you still find difficult.</b> You complete five assessments in Y9. The feedback you receive about errors, misconceptions and problem solving is extremely valuable. You can improve on these topics by completing independent practice on Sparx Maths, or attending KS3 maths support sessions (ask your teacher for timings).</li> <li>✓ <b>Improve your recall with regular practice.</b> Learning anything requires repeated practice over time and maths is no exception. Little and often is the best strategy to help you remember all the skills and content you will need to be successful at GCSE. Get into the habit of looking through your work from that week. Did you understand it? Can you complete another question independently? Do you need more help?</li> <li>✓ <b>Ask questions.</b> Your class teachers want you to succeed and know you well. Ask when you don't understand something and you'll get the help you need.</li> <li>✓ <b>Challenge yourself.</b> Push yourself in class to get that extra question done or to try an extension problem. If you're looking for an extra challenge you might like to try some of these investigations from nRich <a href="https://nrich.maths.org/11354">https://nrich.maths.org/11354</a></li> </ul>	
<b>Overview of course</b>	<ul style="list-style-type: none"> <li>✓ <b>Exam Board:</b> AQA</li> <li>✓ <b>External exams:</b> 3 exams, each 80 marks and 90 minutes long</li> <li>✓ <b>Themes:</b> Paper 1: Non-calculator Paper 2 &amp; 3: Calculator. Any topic could be assessed on any of the three papers.</li> </ul>	
<b>Short term focus: Term 1</b>	In the September of Y10 we start with algebra. We review topics from Y9 on simplifying, expanding brackets, factorising, equations and extend these topics further, for example by application to contexts with geometry and ratio.	
<b>Careers &amp; Suitability</b>	<p style="text-align: center;"><b>This course would suit you if:</b></p> <ul style="list-style-type: none"> <li>• You want to gain essential skills to be financially literate for your future.</li> <li>• You want to develop and apply your mathematical knowledge.</li> <li>• You like to solve problems, to challenge yourself and to increase your resilience</li> </ul>	<p style="text-align: center;"><b>Careers:</b></p> <ul style="list-style-type: none"> <li>Actuary (someone who deals with risk)</li> <li>Accountant</li> <li>Computer Scientist / Software developer</li> <li>Economist</li> <li>Engineer</li> <li>Doctor / Nurse / Healthcare professional</li> <li>Financial Analyst</li> <li>Research Scientist</li> </ul>

