



# The Priory Witham Academy : Curriculum Overview

Believe together, achieve together

SUBJECT	Maths	CURRICULUM LEADER	Mr Webster	YEAR	Year 8
ORGANISATION OF THE SUBJECT	Mathematics is a core subject within the National Curriculum. It is a compulsory subject for all pupils up to the age of sixteen, taught in four one-hour periods per week. It enables pupils to build a secure framework of mathematical reasoning, which they can use and apply with confidence.				
Key Concepts (The big ideas underpinning this subject)			Key Skills in this subject		
<p>Mathematics contributes to the school curriculum by developing pupils' abilities to calculate; to reason logically, algebraically, and geometrically; to solve problems and to handle data. Mathematics is important for pupils in many other areas of study, particularly Science and Technology. It is also important in everyday living and in many forms of employment.</p> <p>Our <b>KS3 Maths Progress</b> course:</p> <ul style="list-style-type: none"> <li>• has the same mastery approach and unique unit structure with in-built differentiation as our Edexcel GCSE (9-1) Mathematics course</li> <li>• is developed to help build confidence in mathematics and prepare your students for the new GCSE</li> <li>• supports your planning, teaching and assessing students' progress</li> <li>• caters for all attainment levels with differentiated Student Books</li> <li>• focuses on problem-solving and mathematical reasoning skills whilst providing plenty of extra practice on every topic.</li> </ul>			<p>We aim to set challenging targets with high expectations for all pupils at all abilities; to offer a variety of approaches to teaching and learning; to smooth the transition for pupils between Key Stages and ensure progression in teaching and learning throughout their time at The Priory Witham Academy.</p> <p>The key skills taught in Mathematics through the curriculum are:</p> <ul style="list-style-type: none"> <li>• Mathematical fluency</li> <li>• Mathematical Reasoning</li> <li>• Mathematical Problem Solving</li> <li>• Communication</li> </ul> <p>These are skills that will be taught across all key areas of the Mathematics curriculum:</p> <ul style="list-style-type: none"> <li>• Number</li> <li>• Algebra</li> <li>• Ratio, proportion and rates of change</li> <li>• Geometry and measures</li> <li>• Probability</li> <li>• Statistics</li> </ul>		
What will be learnt in this subject?			How will learning take place in this subject?		

**Module one**

Numbers and the number system  
Calculating  
Visualising and constructing

**Module two**

Understanding risk  
Algebraic proficiency  
Exploring fractions, decimals and percentages  
Patterns/ Number patterns  
Consolidation and Assessment  
Innovation week

**Module three**

Proportional reasoning  
Investigating angles  
Calculating fractions, decimals and percentages  
Consolidation and assessment

**Module four**

Calculating fractions, decimals and percentages  
Calculating space  
Consolidation and assessment  
Solving equations and inequalities

**Module five**

Solving equations and inequalities  
Algebraic proficiency: visualising  
Understanding risk II  
Presentation of data  
Consolidation and assessment

**Module six**

Presentation of data  
Measuring data  
My money week  
Project  
Exam and revision

Work in Mathematics will vary depending on the subject matter being taught, the stage of the students learning and what the outcomes of each lesson are meant to be.

In lessons written work will be expected to be of a high standard being presented in the correct way. We understand students learn differently and so the teaching will often adapt to cater for the needs of individual children.

Work in class may include but not limited to:

- Problem solving tasks – these are more open ended tasks giving students the opportunity to explore mathematical concepts in more depth to create links between those concepts and to gain a greater understanding of them.
- Questions from a worksheet or textbook – These tasks help to improve the student's mathematical fluency which is essential if a concept is to be fully understood, initial ideas are developed by working methodically through questions that may change in style or difficulty in order to embed a specific concept.
- Tarsia or Loop card activities – These activities require students to work in groups, to develop their mathematical communication skills. They are encouraged to discuss their thoughts and reasoning through discussion and justify their theories in order to reach a desired outcome.
- Testing – These will range from end of unit tests that the teachers will use to inform future planning to Federation wide end of term tests which your child will sit at the end of Module 2 and 4 and 6.
- Revision activities – Throughout their mathematics lessons we will begin to develop revision techniques to allow them to develop these essential skills that they will need in order to pass their examination at the end of the course.
- Project work – At times within the course students will be given the opportunity to practise skills they have already learnt and take part in a larger scale project with other students. This ensures they have the skillset

	<p>needed and will include things like methodology, proof, justification and evaluation.</p> <p>In all of these tasks students are encouraged to challenge themselves and their limits. The work will be designed to ensure each and every student is stretched in order to achieve their potential. Within lessons work will be personalised and differentiated to support the individual needs to the students and they will be appropriately supported by the teaching staff.</p>
<p>What methods of assessment will be used?</p>	<p>How can you support learning and progress in this subject?</p>
<ul style="list-style-type: none"> <li>• End of unit tests will be offered but will be completed if the teacher feels these are useful.</li> <li>• End of half term tests will be compulsory and used for tracking progress and identifying early support for pupils where necessary.</li> <li>• Star Maths will run alongside Star reader and produce an accurate numeracy score. These assessments will run throughout each module for all pupils.</li> </ul>	<ul style="list-style-type: none"> <li>• Support students at home, encouraging them to complete homework and discussing their grades and progress.</li> <li>• Ensure you are aware of the different online and offline resources your child can access when they are not in school.</li> <li>• Support your child with effective time management.</li> <li>• Communicate with school, your child will certainly benefit from positive dialogue between yourself and your child's teacher.</li> <li>• Support the school by allowing your child to attend extra-curricular clubs and intervention sessions.</li> <li>• Ensure you know how to access and use Show My Homework to support your child with their homework.</li> </ul>
<p>Equipment needed for this subject.</p>	<p>Learning outside the classroom : enrichment opportunities in this subject.</p>
<ul style="list-style-type: none"> <li>• Black Pen</li> <li>• Pencil</li> <li>• 30cm Ruler</li> <li>• Protractor</li> <li>• Pair of Compasses</li> <li>• Rubber</li> <li>• Scientific Calculator</li> </ul> <p>(We recommend the Casio FX-85GTPLUS which can be bought in most stationary shops).</p>	<p>All pupils have access to a variety of hard copy and online support such as:</p> <ul style="list-style-type: none"> <li>• SharePoint</li> <li>• MathsWatch</li> <li>• BBC Bitesize</li> </ul> <p>All of which follow the curriculum taught in class. Students should know their own user names and passwords but they can all be obtained from the Mathematics office if needed. They can access these both in school and out. All pupils are encouraged to use these resources as often as possible.</p>