What will I learn?

The Scheme of Learning for Year 7 to 11 is based on White Rose Maths. The content for all groups is based upon this scheme. Here is the 5 year plan for this scheme of learning:

WRM – Year 7 Scheme of Learning

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Algebraic Thinking						Place Value and Proportion					
	Sequences		Understand and use algebraic notation		Equality and equivalence		Place value and ordering integers and decimals			Fraction, decimal and percentage equivalence		
Spring	Applications of Number						Directed Number			Fractional Thinking		
	Solving problems with addition & subtraction		Solving problems with multiplication and division			Fractions & percentages of amounts	Four operations with directed number			Addition and subtraction of fractions		
Summer	Lines and Angles						Reasoning with Number					
	Constructing, measuring and using geometric notation			Developing geometric reasoning			Developing number sense		Sets and probability		Prime numbers and proof	

WRM – Year 8 Scheme of Learning

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Proportional Reasoning						Representations					
	Ratio and scale		Multiplicative change		Multiplying and dividing fractions		Working in the Cartesian plane			Representing data		Tables & Probability
Spring	Algebraic techniques						Developing Number					
	Brackets, equations and inequalities				Sequences	Indices	Fractions and percentages			Standard index form		Number sense
Summer	Developing Geometry						Reasoning with Data					
	Angles in parallel lines and polygons			Area of trapezia and circles		Line symmetry and reflection	The data handling cycle				Measures of location	

WRM – Year 9 Scheme of Learning

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Reasoning with Algebra**						**Constructing in 2 and 3 Dimensions**					
	Straight line graphs		Forming and solving equations		Testing conjectures		Three-dimensional shapes			Constructions and congruency		
Spring	**Reasoning with Number**						**Reasoning with Geometry**					
	Numbers		Using percentages		Maths and money		Deduction		Rotation and translation		Pythagoras' Theorem	
Summer	**Reasoning with Proportion**						**Representations and Revision**					
	Enlargement and similarity		Solving ratio & proportion problems		Rates		Probability		Algebraic representation		Revision	

WRM – Year 10 Scheme of Learning

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Similarity**						**Developing Algebra**					
	Congruence, similarity and enlargement			Trigonometry			Representing solutions of equations and inequalities			Simultaneous equations		
Spring	**Geometry**						**Proportions and Proportional Change**					
	Angles & bearings		Working with circles		Vectors		Ratios & fractions		Percentages and Interest		Probability	
Summer	**Delving into data**						**Using number**					
	Collecting, representing and interpreting data						Non-calculator methods		Types of number and sequences		Indices and Roots	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Graphs						Algebra					
	Gradients & lines		Non-linear graphs		Using graphs		Expanding & Factorising		Changing the subject		Functions	
Spring	Reasoning						Revision and Communication					
	Multiplicative		Geometric		Algebraic		Transforming & Constructing			Listing & describing	Show that...	
Summer	Revision						Examinations					

Please note – Some of the Year 11 topics are taught at the end of year 10 to give additional time for revision before the GCSE examinations take place in year 11.

Some of our year 11 students study Extended Maths which is a qualification taken in addition to GCSE Maths.

How will I learn it?

The Poynton High School Mathematics department have developed a shared approach to planning lessons. This is to help develop consistency, ensure high quality resources are used and develop common teaching approaches to certain skills within the curriculum. Lessons begin with a starter, this can be a retrieval practice activity on mixed topics the students have previously been taught. Other times this may be a puzzle style problem using a skill they have learnt recently.

Lessons follow a pattern where students discover or are introduced to a new topic. Once they have grasped the basics, we begin to formalise the method and allow time for some deliberate practice. Once they are beginning to master a topic, lessons are enriched with some less structured problems or puzzles to really push the understanding!

Our teaching staff believe learners of all abilities need to experience early success within a topic before the understanding is further enriched. By employing techniques such as silent teacher demonstrations and deliberate practice, we have found our students to make deeper connections within and between the areas they are learning. We use visual modelling strategies such as bar modelling, ratio tables, and algebra tiles as they can help visualise a broad range of mathematical ideas using frameworks that are familiar to the students already.

At Poynton High School we believe the purpose of assessment should be to help progress learning. We use data to inform us of the starting points for students within a class. We also employ more informal, low stakes qualitative assessment strategies as a regular part of our lessons. We value the use of well written multiple-choice questions to help really draw out and address misconceptions in the students understanding. Students regularly review their own written classwork through peer book reviews and are rewarded for presenting their work in a mathematically clear and fluent format.

Assessments	Students have a series of assessments per year as an opportunity to learn and practice previously taught skills and techniques. Formal Used to determine students' individual strengths and weaknesses and make judgements on attainment. Afterwards, a detailed analysis is completed and strengths and targets are highlighted. Teachers then use this knowledge to progress students. These assessments usually cover content from the previous term to help with Open Book We use this type of assessment to help our students develop their exam technique. Students are encouraged to keep clear and well organised book notes within lessons as they will be able to use these as an aid in these assessments. These assessments usually cover recently studied topics.
Home Learning	Students are given two types of home learning task each fortnight. Online Activity These allow our students to receive immediate feedback on their work. They will usually be set work on a topic that has recently been taught in lesson and deliberately focus on the 'basic skills'. Where a weakness is identified, our online platform allows students to immediately follow up and work on these skills. Written Activity Our written home learning tasks are prescribed centrally by the department to ensure consistency. They help aid retrieval practice by covering topics the students were taught in the previous term. Each task deliberately provokes a little deeper thought than our online tasks, encouraging students to reason and practice problem solving skills on topics they have previously fully covered. Following each written task, students are given feedback (SMART) for improvement which they are encouraged to act upon, writing their feedback in red pen. As the students progress up to GCSE, these tasks begin to consist of more exam standard questions to help familiarise our learners with this style of question.
Stretch and Challenge	For our more able students, we give them an opportunity to take part in events such as the National UKMT Maths Challenge competition.