

Curriculum Summary Document

Year 9 - Maths

Module/Unit of Learning	Taught During	What will students learn?	What enriching opportunities will students engage in?	Links to other Subjects
Analysing Data	Autumn Term 1	The world of data. Students will begin learning about all the types of data, how this informs us in the best ways to represent data and how they can investigate hypotheses and draw conclusions. Students will revise work completed in year 6 on averages, discuss why each one is important and when each can be used at its best. They will discover new ways to compare and represent data with the use of frequency diagrams, stem and leaf diagrams, quartiles and box-plots	During this module students will look at real-life data either collected themselves or through a secondary source. Students will learn to develop a critical eye looking at how data can be used to manipulate.	Geography History Science CLASS
Expanding & Factorising Expressions	Autumn Term 1 & 2	Students have spent time in year 7 and 8 representing numerical rules in general form and manipulating algebraic expressions. This unit will continue to build on that. Students will learn to expand and factorise up to cubics.	UKMT Maths Challenge (Intermediate) will take place during the Autumn Term.	
Circles & Sectors	Autumn Term 2	Students learn how to find the area and circumference of a circle and sectors. This will then be developed into part-circles and more complex examples.	Students will explore the unique world of the circle, treading along steps of the ancients to discover Pi.	Art
Algebraic Graphs	Autumn Term 2	Students will take their learning from year 8 on linear graphs and discover that not all relationships can be represented linearly. They will explore quadratic, cubic and reciprocal relationships and how these can be visually represented in graph form. They will move on from solving equations algebraically to solving them graphically.	Shape Enrichment Day. Students begin their recap of shape work with a team challenge in form groups.	Science Geography
Parallel Lines & Polygons	Autumn Term 2	During Primary school students will have learnt the names of polygons but little else, during this module students will learn about parallel lines and the properties of polygons.	Construction practise with Easter Egg Tangrams	Art

Factors & Indices	Spring Term 1	Revisiting work from year 7 on the language of number, primes, factors and multiples. Students will then discover the rules of indices and investigate these further.		Science History Geography
Circle Theorems (Higher)	Spring Term 1	Students will visit the world of circle of theorems, recapping the Y8 examples, before learning the other theorems and how to spot them.		Art
Displaying Data	Spring Term 2	Students will continue their work from earlier this year on analysing data. Students will focus on methods to display data, including scatter graphs, time series, cumulative frequency graphs and frequency polygons.	During this module students will look at real-life data either collected themselves or through a secondary source. Students will learn to develop a critical eye looking at how data can be used to manipulate.	Science Geography PE CLASS
Standard Form	Summer Term 1	Students will explore the concept of working with very large or small numbers through the writing of numbers in standard form.		
Surds (Higher Only)	Summer Term 1	Students will take their previous indices knowledge on further with irrational numbers and surd work.		
Fractions (Foundation) & Algebraic Fractions (Higher)	Summer Term 1 & 2	Having reviewed numerical fractions students will look at how we can apply the same knowledge to algebraic fractions. Higher Students will use their work on factorising from Autumn Term to further simplify algebraic fractions.		Science
Equations (Foundation)	Summer Term 2	Students will focus on further work on solving linear equations and will draw in linear equations with a fraction involved in the process. Higher students will look at solving more complex equations.		Science
Real Life Graphs	Summer Term 2	Student will revisit their work on compound measures from Year 8 and they will look at the graphs linked with speed, distance and time	Circle Art Explorations	Science PE Art