

Curriculum Map 2021/2022



YEAR 10 MATHS HIGHER

Mathematics is an interconnected subject in which students need to be able to move fluently between representations of mathematical ideas. The programme of study is organised into apparently distinct domains, but students should build on key stage 3 and connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge in science, geography, computing and other subjects.

The curriculum is taught through the mathematical strands of: Number and Ratio, Algebra, Geometry and Measures, Statistics and Probability

	Autumn 1a	Autumn 1b	Spring 2a	Spring 2b	Summer 3a	Summer 3b
CONTENT <i>Declarative / core / powerful Knowledge – ‘Know What’</i>	Recovery Curriculum in preparation for Year 10 Functions	Algebraic Fractions Surds Percentage Growth and Decay	Iteration 3D Trigonometry	Construction and Loci Congruency	3D Shape Advanced Statistics	Similarity and Non Right Angled Trigonometry
Intent	These topics need to be secure in order to access the topics being covered this year. We understand that learning has been disrupted over the last two years and these skills will ensure students have the skills to access the curriculum.	These topics will allow students to problem solve with situations involving quadratics	This topic will allow student to find the volumes and surface area of challenging pyramids, cones, frustums and certain prisms	Topics involving the use of compass constructions are placed together to allow students to practice the key skills before employing them to loci problems	Having studied 3d Pythagoras and trigonometry earlier in the year, students have the skills to find surface areas and volumes of 3D shapes with missing information	Having studied volumes and surface areas in the previous half term, students will now have the opportunity to study the effects of scaling the lengths of a shape/solid on the shapes area/volume.
Skills <i>Procedural Knowledge – ‘Know How’</i>	Students will be able to: Solve complex linear equations	Students will be able to:	Students will be able to: Convert recurring decimals to fractions	Students will be able to:	Students will be able to:	Students will be able to: Use box plots to compare data

	class that covers all the content taught within the half term.	class that covers all the content taught within the half term.	class that covers all the content taught within the half term.	class that covers all the content taught within the half term.	class that covers all the content taught within the half term.	class that covers all the content taught within the half term.
Links to careers/wider world			Science modelling Astronomy	Architecture City planning	Calculating capacities of objects	Understanding that x2 8 inch pizzas are not the same size as x1 16 inch pizza