Overview Document 2026/27	Curriculum Area: Mathematics	Year Group: 10 (Higher)
	Personnel Responsible: Mr. J. Parpagga (Curriculum Director)	Quality Assured by: Mrs. L Francome (Assistant Headteacher)

Assessment Cycle	Topic/Unit Title – *Big Question*	Content Coverage	Skill development and links to other areas of this subject's curriculum
1	What Important Formulae Shoud You Be Aware Of?	• Basic ratio including simplifying and sharing. • Combining ratios and ratio with algebra. • Compound measures: speed, distance, time; pressure, force, area; density, mass, volume. • Calculate percentages of amounts with and without a calculator. • Solving a variety of problems involving percentages, including increase/decrease, percentage change, repeated percentage change, simple and compound interest. • Recurring decimals. • Negative and fractional indices. • Surds including: four operations; brackets; rationalising the denominator.	Students will develop their understanding of Mathematical topics based on their solid foundation secured in Key Stage 3. A range of number, algebra and geometry topics will start the year to build on each strand from prior learning. Higher students will be studying similar content to studnets on Foundation, to enable movement later on if possible or necessary. However, they will be given opportunities to study at a deeper level, as well as topics that are only assessed on the higher exam. Students will be making a focused effort to learn key formulae that they will need to know for their exams. Committing these to memory at this point will make it much easier to apply this knowledge to later topics.
2	What Important Formulae Shoud You Be Aware Of?	• Expand and factorise: single brackets; double brackets. Expand triple brackets. • Linear, geometric and quadratic sequences. • Form and solve linear equations. • Linear simultaneous equations. • Solve simultaneous equations graphically and real-life graphs. • Change the subject of formulae. • Sketch and plot linear graphs in the form of $y = mx + c$ and $ax + by + c = 0$, and identifying gradient and y-intercept. • Find parallel and perpendicular lines. • Non-Linear Graphs - Draw: cubic, reciprocal and exponential graphs. • Quadratics: factorisation; quadratic formula; turning points. • Quadratic graphs: draw; sketch; solve equations. • Quadratic simultaneous equations.	Students continue to deepen their understanding of GCSE content, focusing on topics that will be assessed in both Foundation and Higher. Students continue to commit necessary formulae and facts to memory, added to once students are confident with the first set. They will build on knowledge of key geometry topics from year 9, extending a basic understanding to new situations and shapes, and their work on linear graphs and inequalities from year 8.
3	How Can This Type of Mathematics Be Applied to Real Life?	• Transformations: translations; rotations; reflections; enlargements. • Use trigonometry to find missing sides and angles (SOHCAHTOA) in right-angled triangles, using exact trigonometric values, and angles of depressions and elevation. • Pythagoras and Trigonometry (SOHCAHTOA) in 3D. • Surface area of cubes, cuboids, prisms, and cylinders. • Surface area of cones, spheres, pyramids, and frustums. • Volume of cubes, cuboids, other prisms, and composite solids. • Volume of cylinders, spheres, cones and pyramids, and frustums.	The content covered in this cycle gives an opportunity to see how some of the topics learnt previously relate to real-life scenarios, and how the mathematics studied in school can be directly applied in different contexts.

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		• Similar 3D Shapes • Error intervals, bounds and calculations with appropriate degrees of accuracy.	
4	How Can You Best Prepare for Your Mock Exams?	• Non right-angled trigonometry (Sine Rule; Cosine Rule) and area of triangle • Complete, draw and interpret Venn diagrams and find probabilities from them. • Distance-time and velocity-time graphs, including interpretation of gradients. • Scatter graphs; Cumulative frequency graphs; Box plots; Histograms	Towards the end of this cycle, students will complete their first mock exam series. This is an opportunity to discuss effective revision strategies, exam technique, and how to make the most of the data gathered from their assessments, including misconceptions and filling gaps in knowledge.