

## Year 10 Maths

| Subject and Year Group                | Autumn 1 Year 10  | Autumn 2 Year 10   | Spring 1 Year 10  | Spring 2 Year 10  | Summer 1 Year 10  | Summer 2 Year 10  |
|---------------------------------------|---|--|---|---|---|---|
| <b>Topic/Unit to be studied</b>       | NUMBER – UNITS 1, 2, 3, 5<br>ALGEBRA – UNIT 4   | NUMBER – UNIT 5<br>GEOMETRY – UNIT 6<br>DATA – UNIT 7<br>ALGEBRA – UNIT 8  | ALGEBRA – UNITS 9, 10, 11.<br>GEOMETRY – UNIT 12  | GEOMETRY – UNITS 13, 14   | NUMBER – UNITS 15, 16<br>PROBABILTY – UNIT 17   | DATA – UNIT 18<br>GEOMETRY – UNIT 19  |
| <b>Core Knowledge and skills</b>      | <p><b>NUMBER:</b><br/>Fundamentals, building from KS3: Place value, arithmetic, order of operations, negatives, standard form, approximation and bounds, factors, multiples primes, powers, and indices. Surds.</p> <p><b>ALGEBRA:</b><br/>Fundamentals, building from KS3; algebraic notation, substitution, expanding and factorising a bracket, collecting and simplifying terms. Expanding three brackets</p> | <p><b>NUMBER:</b><br/>Building on KS3 to Algebraic fractions<br/><b>GEOMETRY:</b><br/>Fundamentals of shape properties and angles</p> <p><b>DATA:</b><br/>Collecting and displaying data. Histograms</p> <p><b>ALGEBRA:</b><br/>Building KS3 sequences to non-linear and quadratic sequences</p> | <p><b>ALGEBRA:</b><br/>Building from Unit 9 Sequences to linear graphs, gradient, <math>y=mx+c</math>, travel graphs. Building from unit 4 – solving equations, inequalities, changing subject of equation. Solving linear simultaneous equations with 2 variables.</p> <p><b>GEOMETRY:</b><br/>Perimeter, Area building from KS3. Sectors and segments</p> | <p><b>GEOMETRY:</b><br/>Right angled triangles: Pythagoras and Trigonometry. 3D geometry: volume surface area, using Pythagoras and trigonometry.</p> | <p><b>NUMBER:</b><br/>Percentages building from KS3 to include reverse percentage, compound interest, multiplicative reasoning, and financial applications. Ration and proportion building from KS3 to direct and algebraic inverse proportion</p> <p><b>PROBABILITY:</b><br/>Building from KS3 to conditional probability introduce set notation applying to Venn.</p> | <p><b>DATA:</b><br/>Measures of average and spread building from KS3 to interquartile range, comparing and justifying type of average, and their diagrams</p> <p><b>GEOMETRY:</b><br/>Building skills in Transformations from KS3 to fractional, negative enlargement</p> |
| <b>Assessment for and of learning</b> | Key assessment 1 – units 1 to 3   | Key assessment 2 – units 4 &5<br>Key assessment 3 – units 6 &7   | Key assessment 4 – units 8 to 11  | Key assessment 5 – units 12, 13, 14   | Key assessment 6 – units 15, 16, 17   | End of Year Assessment - units 1 - 18   |