



# Mathematics curriculum map

| Year 7                        | <u>Number and proportion</u>  | <u>Number and proportion</u>  | <u>Algebra</u>   | <u>Statistics and probability</u>   |
|-------------------------------|---|---|--|---|
| <b>Units &amp; Sparx code</b> | <ul style="list-style-type: none"> <li>- The Number Place Value System - M911</li> <li>- Comparing Numbers and Decimals - M527</li> <li>- Additions and Subtractions - M928</li> <li>- Multiplying and Dividing by powers of 10 - M113</li> <li>- Rounding - M111, M431</li> <li>- Dividing numbers - M873</li> </ul>   | <ul style="list-style-type: none"> <li>- Commutativity and Associativity - M952, M409</li> <li>- Exponentiation and four operations - M135</li> </ul>   | <ul style="list-style-type: none"> <li>- Substituting into expression – U201</li> </ul>  | <ul style="list-style-type: none"> <li>- Introduction to Algebra - M830</li> <li>- Algebraic terminologies: Constant, Variables, Terms, Expressions etc</li> <li>- Manipulating and simplifying expressions - M795</li> <li>- Collecting like terms – U105</li> <li>- Substituting into expressions - M327</li> </ul> |
| Year 8                        | <u>Number and proportion</u>  | <u>Algebra</u>  | <u>Geometry</u>  | <u>Statistics and probability</u>   |
| <b>Units &amp; Sparx code</b> | <ul style="list-style-type: none"> <li>- Fractions - M619</li> <li>- Percentages, Fractions, Decimals - M264</li> <li>- Time, Estimation &amp; Use of calculator - M878</li> <li>- Proportional Reasoning - M478</li> <li>- Ratio - M525</li> </ul>   | <ul style="list-style-type: none"> <li>- Manipulating and Simplifying Expressions 1 - M795</li> <li>- Manipulating and Simplifying Expressions 2 – M531</li> <li>- Formulae - M208</li> <li>- Linear Equations - M634, M647</li> </ul>  | <ul style="list-style-type: none"> <li>- Understanding, measuring and drawing angles – U447</li> <li>- Angles on a line and about a point – U390</li> <li>- Angles in quadrilaterals – U732</li> <li>- Angles in polygons – U427</li> </ul>  | <ul style="list-style-type: none"> <li>- Discrete data - M738</li> <li>- Bivariate data and Time series - M183</li> </ul>   |
| Year 9                        | <u>Number and proportion</u>  | <u>Algebra</u>  | <u>Geometry</u>  | <u>Statistics and probability</u>   |
| <b>Units &amp; Sparx code</b> | <ul style="list-style-type: none"> <li>- Writing and simplifying ratios - U687</li> <li>- Sharing amounts in a given ratio – U577</li> <li>- Solving direct proportion word problems – U721</li> <li>- Solving inverse proportion word problems – U357</li> <li>- Currency conversion – U610</li> <li>- Multiplying and dividing numbers in standard form - U264</li> <li>- Adding and subtracting numbers in standard form - U290</li> </ul> | <ul style="list-style-type: none"> <li>- Solving equations of the form <math>(x+a)/b=c</math> - M401</li> <li>- Solving linear equations involving brackets - M902</li> <li>- Solving equations with the unknown on both sides - M554</li> <li>- Solving equations with the unknown in the denominator - M387</li> <li>- Constructing and solving equations - M957</li> </ul> | <ul style="list-style-type: none"> <li>- Finding the area of triangles – U945</li> <li>- Finding the area of parallelograms – U424</li> <li>- Finding the area of trapeziums – U265</li> <li>- Finding the area of circles – U950</li> <li>- Finding the area of compound shapes – U970</li> <li>- Enlargement by a positive scale factor – U519</li> <li>- Enlargement by a positive or negative scale factor – U134</li> <li>- Congruent triangles – U866</li> </ul> |   |



## Mathematics curriculum map

|                |  |                |   |                                   |
|----------------|--|----------------|---|-----------------------------------|
|                | <ul style="list-style-type: none"><li>- Standard form with a calculator - U161</li><li>- Percentage change without /with a calculator -U773 / U671</li><li>- Finding original values in percentage calculations - U286</li><li>- Finding the percentage an amount has been changed by - U278</li><li>- Simple interest calculations - U533</li><li>- Calculating with speed - U151</li><li>- Calculating with rates - U256</li><li>- Calculating with density - U910</li><li>- Calculating with pressure - U527</li><li>- Interpreting direct proportion equations - U640</li><li>- Interpreting inverse proportion equations - U364</li><li>- Graphs of direct and inverse proportion - U238</li><li>- Combining ratios - U921</li><li>- Calculating with ratios and algebra- U676</li><li>- Changing ratios - U865</li></ul> |                | <ul style="list-style-type: none"><li>- Using Pythagoras theorem in 2D – U385</li></ul> |                                   |
| <b>Year 10</b> | <u>Number and proportion</u>   | <u>Algebra</u> | <u>Geometry</u>   | <u>Statistics and probability</u> |



## Mathematics curriculum map

|                               |  |  |                 |   |
|-------------------------------|--|--|-----------------|---|
| <b>Units &amp; Sparx code</b> | <p>Students who are doing Higher will progress to complete Higher units. Students doing Foundation will mainly revise content already outlined between Year 7 &amp; 9. However, the following topics will be newly introduced to all students.</p> | <ul style="list-style-type: none"> <li>- Interpreting real life graphs – M771</li> <li>- Plotting distance time graphs using speed – U966</li> <li>- Calculating speed from distance-time graphs – U462.</li> <li>- Plotting velocity-time graphs – U937</li> <li>- Calculating acceleration from velocity-time graphs – U562</li> </ul> |                 | <ul style="list-style-type: none"> <li>- Using the product rule for counting – U369</li> <li>- Probabilities of mutually exclusive events – U683</li> <li>- Frequency trees – U280</li> <li>- Introducing frequency and two-way tables – U981</li> <li>- Conditional probabilities from Venn diagrams – U699</li> <li>- Calculating the range – U526</li> </ul> |
| <b>Year 11</b>                | <u>Number and proportion</u>   | <u>Algebra</u>   | <u>Geometry</u> | <u>Statistics and probability</u>   |
| <b>Units &amp; Sparx code</b> | <p>Similar to year 10, year 11 will have bespoke revision, however unlike year 10 Higher students will also be a part of this.</p>   |  |                 |   |