## Year 11 Higher Scheme of learning 2022-2023 - Term 2

## Stretch key learning in italics

| Topic | Key learning | MathsWatch Clip No | \% | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Circle Theorems Revision | Prove and use angle in a semi circle is a right angle \& opposite angles in a cyclic quadrilateral sum to $180^{\circ}$ | 183 |  |  |  |
|  | Prove and use all circle theorems | 184 |  |  |  |
|  | Find and give reasons for missing angles on diagrams | 183 \& 184 |  |  |  |
|  | Solve problems that involve reasoning and provide counter arguments | 183 \& 184 |  |  |  |
| Histograms, Cum. Freq, Box plots Revision | Construct and interpret CF tables and graphs | 186 |  |  |  |
|  | Interpret box plots to find the median, quartiles and IQR | 187 |  |  |  |
|  | Construct and interpret histograms from class intervals with unequal widths | 205 |  |  |  |
|  | Interpret two or more data sets from box plots and relate the key measures | 187 |  |  |  |
| Surface Area \& Volume Revision | Find the volume and surface area of a cylinder | $\begin{gathered} 114 a, 114 b, \\ 119 \end{gathered}$ |  |  |  |
|  | Use the formula for the volume of a pyramid and find the surface area | 170 |  |  |  |
|  | Solve more complex shapes and solids including segments of circles and frustums. | 171 \& 172 |  |  |  |
|  | Combinations of 3 D forms such as a cone and sphere where the radius needs to be calculated | 169-172 |  |  |  |
|  <br> Bounds <br> Revision | Calculate upper and lower bounds of numbers given to varying degrees of accuracy | 206 |  |  |  |
|  | Find the upper and lower bounds of calculations involving perimeter, area and volume | 206 |  |  |  |
|  | Use inequality notation to specify an error interval | 155 |  |  |  |
|  | Find upper and lower bounds in real life situations | 206 |  |  |  |
| Percentages | Work out a percentage increase and decrease | 109 |  |  |  |
|  | Find a percentage of a quantity using a multiplier | 108 |  |  |  |
|  | Describe percentage increase/ decrease with fractions | 109 |  |  |  |
|  | Find the original amount (reverse) using calculator and non calc methods | 110 |  |  |  |
| Simultaneous <br> Equations and Graphs Revision | Use elimination or substitution to solve simultaneous equations | 162 |  |  |  |
|  | Solve 2 linear equations including where both need to be multiplied | 162 |  |  |  |
|  | Solve a linear and quadratic equation | 211 |  |  |  |
|  | Identify intersection points of a quadratic and linear graph | 140 |  |  |  |
| Revision |  |  |  |  |  |
| February half term |  |  |  |  |  |
| Mocks |  |  |  |  |  |
| Gap Filling |  |  |  |  |  |
| Easter |  |  |  |  |  |

