

## Mathematics Year 11 Long term plan 2020/2021

| Autumn Term 1 <sup>st</sup> Half |                                   | Autumn Term 2 <sup>nd</sup> Half |                                 |
|----------------------------------|-----------------------------------|----------------------------------|---------------------------------|
| Unit 9: Graphs                   | Unit10: Transformations           | Unit 11: Ratio and Proportion    | Unit 12: Right-angled triangles |
| 9.1 Coordinates                  | 10.1 Translation                  | 11.1 Writing ratios              | 12.1 & 12.2 Pythagoras'         |
| 9.2 Linear graphs                | 10.2 Reflection                   | 11.2 Using ratios                | theorem                         |
| 9.3 Gradient                     | 10.3 Rotation                     | 11.3 Ratios and measures         | 12.3 & 12.4 The sine ratio      |
| 9.4 y = mx + c                   | 10.4 Enlargement                  | 11.4 Using ratios 2              | 12.5 The cosine ratio           |
| 9.5 Real-life graphs             | 10.5 Describing enlargements      | 11.5 Comparing using ratios      | 12.6 The tangent ratio          |
| 9.6 Distance-time graphs         | 10.6 Combining transformations    | 11.6 Using proportion            | 12.7 Finding lengths and angles |
| 9.7 More real-life graphs        |                                   | 11.7 proportion and graphs       | using trigonometry              |
|                                  |                                   | 11.8 proportion problems         |                                 |
|                                  |                                   |                                  |                                 |
| Spring Term 1 <sup>st</sup> Half |                                   | Spring Term 2 <sup>nd</sup> Half |                                 |
| Unit 13: Probability             | Unit 14: Multiplicative reasoning | Unit 15: Constructions, loci and | Unit 17: Perimeter, Area and    |
| 13.1 Calculating probability     | 14.1 percentages                  | bearings                         | Volume 2                        |
| 13.2 Two events                  | 14.2 Growth and decay             | 15.1 3D solids                   | 17.1 & 17.2 Circumference of a  |
| 13.3 Experimental probability    | 14.3 Compound measures            | 15.2 Plans and elevations        | circle                          |
| 13.4 Venn diagrams               | 14.4 Distance, speed and time     | 15.3 Accurate drawings 1         | 17.3 Area of a circle           |
| 13.5 & 13.6 Tree diagrams        | 14.5 Direct and inverse           | 15.4 Scale drawings and maps     | 17.4 Semicircles and sectors    |
|                                  | proportion                        | 15.5 Accurate drawings 2         | 17.5 Composite 2D shapes and    |
|                                  |                                   | 15.6 Constructions               | cylinders                       |
|                                  |                                   | 15.7 Loci and regions            | 17.6 Pyramids and cones         |
|                                  |                                   | 15.8 Bearings                    | 17.7 Spheres and composite      |
|                                  |                                   |                                  | solids                          |
|                                  |                                   |                                  |                                 |

| Unit 18: Fractions, indices and standard form  18.1 Multiplying and dividing fractions  18.2 The laws of indices  18.3 Writing large numbers in standard form  18.4 Writing small numbers in | Summer Term 1 <sup>st</sup> Half  |                                     | Summer Term 2 <sup>nd</sup> Half |  |
|--|---|-------------------------------------|----------------------------------|--|
| standard form  18.5 Calculating with standard form   | standard form 18.1 Multiplying and dividing fractions 18.2 The laws of indices 18.3 Writing large numbers in standard form 18.4 Writing small numbers in standard form 18.5 Calculating with standard | Final revision: doing past papers a | and consolidating knowledge base |  |

Subject to COVID-19 restrictions and guidelines