

## Curriculum Map

### Subject: Maths

## Year Group: 9F (Set 4)

|         | Autumn 1/Autumn 2   | Autumn 2  | Autumn 2/Spring 1  | Spring 2  | Summer 1  | Summer 2  |
|---------|---|---|--|---|---|---|
| Content | Unit 1: Number.   | Unit 2: Algebra.  | Unit 3: Graphs, tables   | Unit 4: Fractions and   | Unit 6: Angle.  | Unit 7: Averages and  |
|         |   |   | and charts.  | percentages.  |   | range.  |
|         |   |   |  | Unit 5: Equations,<br>inequalities and<br>sequences.  |   |   |
| Skills  | Students will   | Students will   | Students will  | Students will   | Students will   | Students will   |
|         | Unit 1:<br>Use order of operations.<br>Use inverse operations.<br>Round to significant<br>figures and estimate.<br>Find HCF and LCM.<br>Calculate with powers<br>(indices).<br>Use zero, negative and<br>fractional indices.<br>Use prime factors to find<br>HCF and LCM. | Unit 2:<br>Use algebraic<br>notations.<br>Write and simplifying<br>expressions.<br>Substitute numbers<br>into expressions.<br>Recognise the<br>difference between<br>Formulae and<br>expressions.<br>Expand brackets.<br>Factorise expressions.<br>Use expressions and<br>formulae. | Unit 3:<br>Read data from<br>frequency tables.<br>Design and use Two-<br>way tables,<br>Representing data in<br>bar charts<br>Interpret charts, line<br>graphs and<br>histograms.<br>Construct and<br>interpret stem and<br>leaf diagrams,<br>Draw and interpret<br>pie charts,<br>Plot and interpret<br>scatter graphs,<br>Draw and use line of<br>best fit to predict<br>values. | Unit 4:<br>Work with fractions.<br>Add and subtract<br>fractions.<br>Multiplying and<br>divide fractions.<br>Convert between<br>Fractions, decimals<br>and percentages.<br>Find a percentage of<br>quantities.<br>Calculate percentage<br>increases and<br>decreases.<br>Unit 5:<br>Solve simple linear<br>equations.<br>Solve two-step<br>equations.<br>Solve equations with<br>brackets.<br>Solve simple<br>inequalities. | Unit 6:<br>Identify congruent<br>shapes.<br>Find angles in parallel<br>lines.<br>Solve angles<br>problems in triangles.<br>Calculate the exterior<br>and interior angles of<br>regular polygons.<br>Explain why some<br>polygons tessellates<br>and others don't. | Unit 7:<br>Find the mode,<br>median, mean and<br>range.<br>Recognise different<br>types of average.<br>Find an estimate of<br>the mean.<br>Understand the need<br>for sampling. |

|  |  |  |   | Solve two-sided<br>inequalities.<br>Use formulae.<br>Generate sequences.<br>Find the nth term of a<br>sequence.  |   |   |
|--|--|--|---|--|---|---|
| Key questions                                | FOUNDATION<br>ACTIVELEARN BOOK<br>UNIT 1 PRACTICE TEST   | FOUNDATION<br>ACTIVELEARN BOOK<br>UNIT 2 PRACTICE<br>TEST  | FOUNDATION<br>ACTIVELEARN BOOK<br>UNIT 3 PRACTICE<br>TEST   | FOUNDATION<br>ACTIVELEARN BOOK<br>UNIT 4 PRACTICE<br>TEST<br>UNIT 5 PRACTICE<br>TEST   | FOUNDATION<br>ACTIVELEARN BOOK<br>UNIT 6 PRACTICE<br>TEST   | FOUNDATION<br>ACTIVELEARN BOOK<br>UNIT 7 PRACTICE<br>TEST   |
| Assessment                                   | Unit 1 Assessment  | Unit 2 Assessment  | Unit 3 Assessment   | Unit 4 & 5<br>Assessment   | Unit 6 Assessment   | Unit 7 Assessment<br>END OF YEAR<br>ASSESSMENT  |
| Literacy/<br>Numeracy/<br>SMSC/<br>Character | Understanding and<br>interpreting worded<br>questions.<br>Resilience, practicing<br>diligence and<br>organisation with good<br>presentation. | Understanding and<br>interpreting worded<br>questions.<br>Resilience, practicing<br>diligence and<br>organisation with<br>good presentation. | Understanding and<br>interpreting worded<br>questions.<br>Appreciating how<br>data is used to deliver<br>information and how<br>it can be transformed<br>to represent<br>information in<br>different ways | Understanding and<br>interpreting worded<br>questions.<br>Recipes, sharing and<br>best values for<br>money.<br>Seeing how Fractions,<br>decimals and<br>Percentages are used<br>in data and sales. | Understanding and<br>interpreting worded<br>questions.<br>Using correct phrases<br>and terminology to<br>explain reasons for<br>answers<br>Using equipment<br>correctly | Understanding and<br>interpreting worded<br>questions.<br>Reading and<br>understanding data<br>representation in<br>papers, TV and social<br>media. |



## Curriculum Map

# Subject: Maths

# Year Group: 9H (Sets 1 – 3)

|         | Autumn 1/Autumn 2  | Autumn 2   | Autumn 2/Spring 1  | Spring 2   | Summer 1   | Summer 2   |
|---------|--|--|--|--|--|--|
| Content | Unit 1: Number.  | Unit 2: Algebra.   | Unit 3: Interpreting<br>and representing<br>data.<br>Unit 4: Fractions,<br>Percentages and<br>Proportion.  | Unit 5: Angles and<br>trigonometry.  | Unit 6: <b>Graphs.</b>   | Unit 7: Area and<br>volume (TO BE<br>REVIEWED AND<br>COMPLETED IN YEAR<br>10)  |
| Skills  | Students will  | Students will  | Students will  | Students will  | Students will  | Students will  |
|         | Unit 1: Number<br>Work out the total<br>number of ways of<br>performing a series tasks.<br>Estimate an answer.<br>Find the HCF and LCM.<br>Use powers and roots in<br>calculation.<br>Use zero, negative and<br>fractional indices.<br>Calculate with numbers in<br>standard form.<br>Simplify and rationalise<br>surds. | Unit 2:<br>Use the rules of<br>indices to simplify<br>algebraic expression.<br>Expand and factorise<br>expressions.<br>Solve equations<br>involving brackets<br>and fractions.<br>Substitute numbers<br>into formulae.<br>Rearrange formulae.<br>Find the nth term of a<br>linear sequences,<br>Solve problems using<br>non-linear sequences,<br>Expand the product<br>of two brackets.<br>Factorise quadratics<br>of the form x <sup>2</sup> + bx +c. | Unit 3:<br>Construct and use<br>back-to-back stem<br>and leaf diagrams.<br>Construct and use<br>frequency polygons<br>and pie charts.<br>Plot and interpret<br>scatter graphs.<br>Use a line of best fit<br>to predict values.<br>Find averages and<br>range from grouped<br>data.<br>Recognise misleading<br>graphs.<br>Unit 4:<br>Add, subtract,<br>multiply and divide<br>fractions.<br>Solve problems<br>involving ratios.<br>Solve problems<br>involving ratio and<br>proportion, | Unit 5:<br>Derive and use the<br>sum of angle in a<br>triangle and<br>quadrilateral.<br>Solve problems using<br>interior and exterior<br>angles of polygons.<br>Solve problems using<br>Pythagoras' theorem. | Unit 6:<br>Find gradient and y-<br>intercept of a linear<br>equation.<br>Find the equation of a<br>line.<br>Find the gradient<br>through two points.<br>Draw and interpret<br>real-life graphs.<br>Find the equation of<br>parallel and<br>perpendicular lines.<br>Draw and interpret<br>quadratic graphs.<br>Draw the graphs of<br>cubic and reciprocal<br>functions.<br>Draw the graph of a<br>circle. | Unit 7:<br>Find the perimeter<br>and area of<br>compound shapes.<br>Convert between<br>metric units area.<br>Calculate upper and<br>lower bound of<br>measurements.<br>Calculate surface area<br>and volume of prisms.<br>Calculate the area<br>and perimeter of<br>sectors.<br>Calculate the volume<br>and surface area of<br>cylinders and<br>spheres.<br>Calculate the volume<br>and surface area of<br>pyramids and cones. |

| Koussians                                    |  |  | Solve real-life<br>problems involving<br>percentages,<br>Calculate using<br>fractions, decimals<br>and percentages.  |  |   |   |
|--|--|--|--|--|---|---|
| Key questions                                | BOOK UNIT 1 PRACTICE<br>TEST   | ACTIVELEARN BOOK<br>UNIT 2 PRACTICE<br>TEST  | ACTIVELEARN BOOK<br>UNIT 3 PRACTICE<br>TEST PAGE 94<br>UNIT 4 PRACTICE<br>TEST   | ACTIVELEARN BOOK<br>UNIT 5 PRACTICE<br>TEST  | ACTIVELEARN BOOK<br>UNIT 6 PRACTICE<br>TEST   | ACTIVELEARN BOOK<br>UNIT 7 PRACTICE<br>TEST PAGE 237 IF<br>TIME ALLOWS  |
| Assessment                                   | Unit 1 Assessment  | Unit 2 Assessment  | Unit 3 & 4<br>Assessment   | Unit 5 Assessment  | Unit 6 Assessment   | Unit 7 Assessment   |
| Literacy/<br>Numeracy/<br>SMSC/<br>Character | Understanding and<br>interpreting worded<br>questions.<br>Resilience, practicing<br>diligence and<br>organisation with good<br>presentation. | Understanding and<br>interpreting worded<br>questions.<br>Resilience, practicing<br>diligence and<br>organisation with<br>good presentation. | Assessment<br>Understanding and<br>interpreting worded<br>questions.<br>Appreciating how<br>data is used to deliver<br>information and how<br>it can be transformed<br>to represent<br>information in<br>different ways<br>Recipes, sharing and<br>best values for<br>money.<br>Seeing how Fractions,<br>decimals and<br>Percentages are used<br>in data, in the new<br>and sales. | Understanding and<br>interpreting worded<br>questions.<br>Recognising<br>Trigonometric ratios<br>and its application to<br>real life.<br>Building on their<br>resilience, tolerance,<br>initiative and<br>confidence | Understanding and<br>Interpreting worded<br>questions<br>Honing skills in<br>plotting graphs of<br>functions.<br>Resilience and<br>patience | Understanding and<br>Interpreting worded<br>questions<br>Recognising and<br>appreciating its<br>practical application<br>in real life<br>Viewing objects and<br>things in different<br>positions and<br>perspectives.<br>Using equipment<br>correctly<br>Resilience, practicing<br>diligence and paying<br>attention to details |