

**Year 10 Foundation Curriculum Overview [2026-2027]**  
**Mathematics**

**Autumn Term**

| Autumn Term | Knowledge & Understanding     |                                                                                                                                                                           |                                                                                                                                                                         | Literacy Skills                                                                                                                                                                                                                                                                                                    | Employability Skills<br>[if any]                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Assessment Opportunities                                                                                                                                                                                          |
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|             | Composites                    | Components<br>[KEY concepts & subject specific vocab]                                                                                                                     | Formal Retrieval<br>[if any]                                                                                                                                            |                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                   |
| <b>HT1</b>  | <b>Algebraic Manipulation</b> | <ul style="list-style-type: none"> <li>Simplify expressions</li> <li>Laws of indices</li> <li>Expand a single bracket</li> <li>Factorise into a single bracket</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Key words: Expression, Variable, Formula, Substitute, Like/Unlike terms, Coefficient, Simplify, Power, Base, Index, Indices, Expand, Factorise, Highest Common Factor (HCF)</li> </ul> | <ul style="list-style-type: none"> <li>Personal skills                             <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills                             <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> <li>Careers: Data Science, Finance, Engineering, Computer Science</li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |

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|  | <b>Equations, Inequalities &amp; Formulae</b> | <ul style="list-style-type: none"> <li>Solve equations</li> <li>Solve fractional equations</li> <li>Solve equations with unknowns on both sides</li> <li>Understand inequalities</li> <li>Solve inequalities</li> <li>Represent solutions to inequalities using set notation (E)</li> <li>Change the subject of a simple formula</li> <li>Change the subject of a known formula</li> <li>Change the subject of a complex formula</li> <li>Change the subject where the subject appears more than once (E)</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Keywords: Equation, Inverse, Expression, Unknown, Solution, Coefficient, Integer, Inequality, Satisfy, Compound, Solve, Formula, Subject, Rearrange, Variable</li> </ul> | <ul style="list-style-type: none"> <li>Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> <li>Engineering, architecture and planning</li> <li>Number skills involved in many areas of different work.</li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |
|  | <b>Quadratic expressions and equations</b>    | <ul style="list-style-type: none"> <li>Expand double brackets</li> <li>Expand triple brackets</li> <li>Factorise quadratic expressions</li> <li>Factorise more complex quadratic expressions (E)</li> <li>Difference of two squares</li> <li>Solve quadratic equations equal to 0</li> <li>Solve quadratic equations by factorisation</li> </ul>                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Key words: Variable, Solve, Solution, Equation, Expression, Expand, Quadratic, Factorise</li> </ul>                                                                      | <ul style="list-style-type: none"> <li>Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> </ul> </li> </ul>                                                                                                                                                        | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practice</li> <li>End of topic tests</li> </ul>                            |

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|  |                    | <ul style="list-style-type: none"> <li>• Solve more complex quadratic equations by factorisation (E)</li> <li>• Complete the square</li> <li>• Solve quadratic equations by completing the square (E)</li> <li>• Complete the square with more complex quadratic expressions (E)</li> <li>• Solve quadratic equations using the quadratic formula</li> </ul>                                          |                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>- Using language effectively</li> <li>• Military and Law Enforcement, Engineering, Architecture and planning, Actuaries, Statisticians, Game Development, Computer Graphics, Astronomy</li> <li>• Number skills involved in many areas of different work.</li> </ul>                                            | <ul style="list-style-type: none"> <li>• End of term tests</li> </ul>                                                                                                                                                       |
|  | <b>Percentages</b> | <ul style="list-style-type: none"> <li>• Percentage of an amount</li> <li>• Percentage increase and decrease</li> <li>• Repeated percentage change</li> <li>• Express one number as a fraction or a percentage of another</li> <li>• Express a change as a percentage</li> <li>• Find the original value after a percentage change</li> <li>• Simple interest</li> <li>• Compound interest</li> </ul> | <ul style="list-style-type: none"> <li>• Retrieval in class starter</li> <li>• Prior knowledge whiteboard questions</li> <li>• End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>• Key vocabulary</li> <li>• True and False Tasks</li> <li>• Problem Solving Tasks</li> <li>• Questioning tasks</li> <li>• Key words: Fraction, Decimal Percentage, Equivalent, Convert, Compound Interest, Simple Interest, Increase, Decrease</li> </ul> | <ul style="list-style-type: none"> <li>• Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>• Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Plenary True and False Tasks</li> <li>• Peer and self-assessment</li> <li>• Feedback and reflective practise</li> <li>• End of topic tests</li> <li>• End of term tests</li> </ul> |

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|            |                        | <ul style="list-style-type: none"> <li>Choose appropriate methods to solve percentage problems</li> </ul>                                                                                                                                                                                                                   |                                                                                                                                                                         |                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Careers: Business, finance, taxation, sports, nutrition, medicine</li> </ul>                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                   |
| <b>HT2</b> | <b>Ratio and Scale</b> | <ul style="list-style-type: none"> <li>Equivalent ratios</li> <li>Share in a ratio (given total, one part or difference)</li> <li>Link ratios and fractions</li> <li>Combine a set of ratios</li> <li>Share in a ratio (algebraically)</li> <li>Solve problems with ratio and algebra</li> <li>Ratios and scales</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Questioning tasks</li> <li><b>Key words:</b> Ratio, Simplest Form, Convert, Unit, Equivalent</li> </ul> | <ul style="list-style-type: none"> <li>Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> <li>Careers: Cheffing and catering industry, Business, Architecture, Surveyor, Financial, Currency exchange, Hairdressers, Medical</li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |

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|  | <b>Work with Fractions</b>    | <ul style="list-style-type: none"> <li>Add and subtract fractions</li> <li>Multiply and divide fractions</li> <li>Solve problems with fractions</li> <li>Add and subtract algebraic fractions</li> <li>Multiply algebraic fractions</li> <li>Divide algebraic fractions</li> <li>Simplify algebraic fractions</li> <li>Add and subtract more complex algebraic fractions (E)</li> <li>Multiply and divide more complex algebraic fractions (E)</li> <li>Solve equations with algebraic fractions (E)</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Questioning tasks</li> <li><b>Key words:</b> Fraction, Equivalent, Convert, Simplify, Mixed Number, Improper, Proper</li> </ul> | <ul style="list-style-type: none"> <li>Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> <li>Careers: Engineering, Healthcare, Finance, Science, Catering</li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |
|  | <b>Non-Calculator Methods</b> | <ul style="list-style-type: none"> <li>Order of operations</li> <li>Related calculations</li> <li>Solve multi-step problems</li> <li>Convert recurring decimals to fractions</li> <li>Convert more complex recurring decimals to fractions (E)</li> </ul>                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Key words: Add, Subtract, Balance, Adjust Credit/Debit, Profit/Loss, Recurring, Terminating</li> </ul>                          | <ul style="list-style-type: none"> <li>Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using</li> </ul> </li> </ul>                                                                                            | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |

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|             |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                         |                                                                                                                                                                                                         | language effectively <ul style="list-style-type: none"> <li>Life skills</li> <li>Money management</li> </ul>                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                   |
|             | <b>Straight-line Graphs</b> | <ul style="list-style-type: none"> <li>Plot straight line graphs</li> <li><math>y = mx + c</math></li> <li>Find the equation of a line from a graph</li> <li>Represent solutions to single inequalities on a graph</li> <li>Represent solutions to multiple inequalities on a graph (E)</li> <li>Find the midpoint of a line segment</li> <li>Equation of a straight-line graph given one point and a gradient</li> <li>Equation of a straight-line graph given two points (E)</li> <li>Equations of perpendicular lines (E)</li> <li>Real-life straight-line graphs</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Key words: Gradient, Y-intercept, Solution, Substitute, Midpoint</li> </ul> | <ul style="list-style-type: none"> <li>Personal skills               <ul style="list-style-type: none"> <li>Thinking and problem solving</li> <li>Working together and communicating</li> </ul> </li> <li>Fundamental skills               <ul style="list-style-type: none"> <li>Using numbers effectively</li> <li>Using language effectively</li> </ul> </li> <li>Careers: Business, Finance, Research, Medicine, Architecture</li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |
| Spring term |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                         |                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                   |
| Spring Term | Knowledge & Understanding   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                         | Literacy Skills                                                                                                                                                                                         | Employability Skills                                                                                                                                                                                                                                                                                                                                                                                                                         | Assessment Opportunities                                                                                                                                                                                          |
|             | Composites                  | Components<br>[KEY concepts & subject specific vocab]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Formal Retrieval<br>[if any]                                                                                                                                            | Opportunities for developing literacy skills                                                                                                                                                            | [if any]                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                   |

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| <b>HT3</b> | <b>Probability</b>             | <ul style="list-style-type: none"> <li>Find the probability of a single event</li> <li>Use the property that probabilities sum to 1</li> <li>List and count outcomes</li> <li>Relative frequency</li> <li>Sample spaces for 1 or more events</li> <li>Two-way tables and frequency trees</li> <li>Independent events</li> <li>Tree diagrams for independent events</li> <li>Tree diagrams for dependent events</li> <li>Conditional probability (Tree diagrams) (E)</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary <ul style="list-style-type: none"> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Key words: Numerator, Denominator, Exact Value, LCM, Simplest Form, Outcome, Event, Frequency, Independent, Dependent, Conditional</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> <li>Careers: Finance, Meteorology, Sports, Insurance</li> <li>Number skills involved in many areas of different work.</li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |
|            | <b>Rounding and Estimation</b> | <ul style="list-style-type: none"> <li>Round to decimal places and significant figures</li> <li>Estimate answers to calculations</li> <li>Use of a calculator</li> <li>Error intervals (including truncation)</li> <li>Upper and lower bounds</li> </ul>                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary <ul style="list-style-type: none"> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Key words: Round, Estimate, Significant Figure, Decimal place, Digit, Truncate</li> </ul> </li> </ul>                                                     | <ul style="list-style-type: none"> <li>Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers</li> </ul> </li> </ul>                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> </ul>                                                        |

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|  |                                          |                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                               |                                                                                                                                                                                                                   | <p>effectively<br/>- Using language effectively</p> <ul style="list-style-type: none"> <li>• Gardeners, caterers, builders, joiners, shopkeepers and engineers</li> <li>• Number skills involved in many areas of different work.</li> </ul>                                                                             | <ul style="list-style-type: none"> <li>• End of topic tests</li> <li>• End of term tests</li> </ul>                                                                                                                         |
|  | <b>Perimeter<br/>Area and<br/>Volume</b> | <ul style="list-style-type: none"> <li>• Perimeter of a 2-D shape</li> <li>• Area of a 2-D shape</li> <li>• Area and circumference of a circle</li> <li>• Arc length and perimeter</li> <li>• Area of a sector</li> <li>• Volume of a prism</li> <li>• Volume of a cylinder</li> <li>• Nets</li> <li>• Surface area of a prism</li> <li>• Surface area of a cylinder</li> </ul> | <ul style="list-style-type: none"> <li>• Retrieval in class starter</li> <li>• Prior knowledge whiteboard questions</li> <li>• End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>• Key vocabulary</li> <li>• True and False Tasks</li> <li>• Problem Solving Tasks</li> <li>• Key words: Compound, Area, Perimeter, Circumference, Volume, Prism</li> </ul> | <ul style="list-style-type: none"> <li>• Personal skills<br/>- Thinking and problem solving<br/>- Working together and communicating</li> <li>• Fundamental skills<br/>- Using numbers effectively<br/>- Using language effectively</li> <li>• Careers: Construction, Plumbing, Architect, Surveyor, Engineer</li> </ul> | <ul style="list-style-type: none"> <li>• Plenary True and False Tasks</li> <li>• Peer and self-assessment</li> <li>• Feedback and reflective practise</li> <li>• End of topic tests</li> <li>• End of term tests</li> </ul> |



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|            |                                     |                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                         |                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Number skills involved in many areas of different work.</li> </ul>                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                   |
| <b>HT4</b> | <b>Interpret and Represent Data</b> | <ul style="list-style-type: none"> <li>Averages and range</li> <li>Averages from an ungrouped frequency table</li> <li>Mean from a grouped frequency table</li> <li>Averages from a grouped frequency table</li> <li>Use data to compare distributions</li> <li>Types of data</li> <li>Sampling</li> <li>Capture and recapture</li> <li>Scatter graphs</li> <li>Interpolation and extrapolation</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Key words: Population, Sample Representative, Biased, Random, Quantitative, Qualitative, Continuous, Discrete</li> </ul> | <ul style="list-style-type: none"> <li>Personal skills               <ul style="list-style-type: none"> <li>Thinking and problem solving</li> <li>Working together and communicating</li> </ul> </li> <li>Fundamental skills               <ul style="list-style-type: none"> <li>Using numbers effectively</li> <li>Using language effectively</li> </ul> </li> <li>Careers: Data Analyst, Statistician, Business, Finance</li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |
|            | <b>Non-linear graphs</b>            | <ul style="list-style-type: none"> <li>Quadratic graphs</li> <li>Intercepts and roots of quadratic graphs</li> <li>Turning points</li> <li>Cubic graphs</li> <li>Approximate solutions to equations using graphs</li> <li>Equation of the tangent to a curve</li> </ul>                                                                                                                                    | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Key words: Variable, Solve, Solution, Equation, Expression, Expand, Quadratic,</li> </ul>                                | <ul style="list-style-type: none"> <li>Personal skills               <ul style="list-style-type: none"> <li>Thinking and problem solving</li> <li>Working together and communicating</li> </ul> </li> <li>Fundamental skills               <ul style="list-style-type: none"> <li>Using</li> </ul> </li> </ul>                                                                                                                         | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practice</li> </ul>                                                        |

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|  |  | <ul style="list-style-type: none"> <li>Estimate the area under a curve (E)</li> <li>Equation of a circle</li> <li>Equation of a tangent to a circle (E)</li> </ul> |  | Factorise, Cubic, Tangent | numbers effectively<br>- Using language effectively<br><br>• Careers: Military and Law Enforcement, Engineering, Architecture and planning, Actuaries, Statisticians, Game Development, Computer Graphics, Astronomy | <ul style="list-style-type: none"> <li>End of topic tests</li> <li>End of term tests</li> </ul> |
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Summer term

| Spring Term | Knowledge & Understanding |                                                                                                                                                                     |                                                                                                                            | Literacy Skills<br><br>Opportunities for developing literacy skills                                                           | Employability Skills<br><br>[if any]                                                                               | Assessment Opportunities                                                       |
|-------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
|             | Composite                 | Components<br>[KEY concepts & subject specific vocab]                                                                                                               | Formal Retrieval<br>[if any]                                                                                               |                                                                                                                               |                                                                                                                    |                                                                                |
| HT5         | Angles                    | <ul style="list-style-type: none"> <li>Angles around a point, on a straight line and vertically opposite</li> <li>Angles in triangles and quadrilaterals</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> </ul> | <ul style="list-style-type: none"> <li>Personal skills<br/>- Thinking and problem solving<br/>- Working</li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> </ul> |

|            |                            |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                         |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                   |
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|            |                            | <ul style="list-style-type: none"> <li>Exterior angles of any polygon</li> <li>Interior angles of any polygon</li> <li>Solve problems with angles in polygons</li> <li>Alternate, corresponding and co-interior angles</li> <li>Solve problems with angles in parallel lines</li> <li>Solve problems with angles and algebra</li> <li>Prove geometric facts (E)</li> </ul>     | <ul style="list-style-type: none"> <li>End of topic unit test intervention</li> </ul>                                                                                   | <ul style="list-style-type: none"> <li>Key words: Angle, Isosceles, Quadrilateral, Polygon, Alternate, Corresponding, Co-interior</li> </ul>                                                    | <p>together and communicating</p> <ul style="list-style-type: none"> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> <li>Careers: Engineers, Architects, Athletes, Carpenters, Artists, Doctors</li> </ul>                                        | <ul style="list-style-type: none"> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul>                                       |
| Mock Exams |                            |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                         |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                   |
|            | <b>Graphs and Diagrams</b> | <ul style="list-style-type: none"> <li>Pie charts</li> <li>Time-series graphs</li> <li>Frequency polygons</li> <li>Stem-and-leaf diagrams</li> <li>Draw histograms</li> <li>Interpret histograms</li> <li>Draw cumulative frequency diagrams</li> <li>Interpret cumulative frequency diagrams</li> <li>Box plots</li> <li>Compare distributions using box plots (E)</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Key words: Composite, Time-series, Frequency, Proportion</li> </ul> | <ul style="list-style-type: none"> <li>Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |

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|            |                                  |                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                               |                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• Careers: Statistician, Business, Finance, Data Analyst</li> </ul>                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                             |
|            | <b>Vectors</b>                   | <ul style="list-style-type: none"> <li>• Understand and represent vectors</li> <li>• Vector notation</li> <li>• Vectors multiplied by a scalar</li> <li>• Add vectors</li> <li>• Add and subtract vectors</li> <li>• Vector journeys in shapes</li> <li>• Vectors in quadrilaterals</li> <li>• Parallel vectors</li> </ul> | <ul style="list-style-type: none"> <li>• Retrieval in class starter</li> <li>• Prior knowledge whiteboard questions</li> <li>• End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>• Key vocabulary</li> <li>• True and False Tasks</li> <li>• Problem Solving Tasks</li> <li>• Key words: Column vector, Direction, Scalar, Size, Magnitude</li> </ul>      | <ul style="list-style-type: none"> <li>• Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>• Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> <li>• Careers: Engineering, architecture, planning</li> </ul> | <ul style="list-style-type: none"> <li>• Plenary True and False Tasks</li> <li>• Peer and self-assessment</li> <li>• Feedback and reflective practise</li> <li>• End of topic tests</li> <li>• End of term tests</li> </ul> |
| <b>HT6</b> | <b>Factors, Powers and Surds</b> | <ul style="list-style-type: none"> <li>• Prime factorisation, HCF and LCM</li> <li>• Powers, roots and negative indices</li> <li>• Fractional indices</li> <li>• Four operations with surds</li> <li>• Simplify surds</li> </ul>                                                                                           | <ul style="list-style-type: none"> <li>• Retrieval in class starter</li> <li>• Prior knowledge whiteboard questions</li> <li>• End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>• Key vocabulary</li> <li>• True and False Tasks</li> <li>• Problem Solving Tasks</li> <li>• Key words: Factor, Multiple, Highest Common Factor, Lowest Common</li> </ul> | <ul style="list-style-type: none"> <li>• Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> </ul>                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• Plenary True and False Tasks</li> <li>• Peer and self-assessment</li> <li>• Feedback and</li> </ul>                                                                                |

|  |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                         |                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                   |
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|  |                                             | <ul style="list-style-type: none"> <li>Expand single brackets with surds</li> <li>Rationalise the denominator</li> <li>Expand double brackets with surds</li> <li>Rationalise the denominator with more complex denominators (E)</li> <li>Solve problems with surds</li> </ul>                                                                                                                                                                                                                                                                                 |                                                                                                                                                                         | Multiple, Powers, Indices, Root, Irrational, Rational, Surd, Expand                                                                                                                                     | <ul style="list-style-type: none"> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> <li>Careers: Finance, Geography, Science, Engineering, Golden Ratio, Paper</li> </ul>                                                                                                                                            | <p>reflective practise</p> <ul style="list-style-type: none"> <li>End of topic tests</li> <li>End of term tests</li> </ul>                                                                                        |
|  | <b>Pythagoras' Theorem and Trigonometry</b> | <ul style="list-style-type: none"> <li>Pythagoras' theorem (find any side)</li> <li>Use trigonometric ratios to find an unknown side length</li> <li>Use trigonometric ratios to find an unknown angle</li> <li>Exact trigonometrical values</li> <li>Trigonometry in 3-D shapes</li> <li>Area of a non-right-angled triangle</li> <li>Use the sine rule to find an unknown length</li> <li>Use the sine rule to find an unknown angle</li> <li>Use the cosine rule to find an unknown length</li> <li>Use the cosine rule to find an unknown angle</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Key words: Hypotenuse, Opposite, Adjacent, Tangent, Sine, Cosine</li> </ul> | <ul style="list-style-type: none"> <li>Personal skills <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> <li>Careers: Agriculture, Surveyors, Construction, Aviation,</li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |

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|                 |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                         |                                                                                                                                                                                                                                                                        | Astronomy,<br>Engineer                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                   |
|                 | <b>Simultaneous Equations</b> | <ul style="list-style-type: none"> <li>Solve simultaneous equations using graphs</li> <li>Solve simultaneous equations (no adjustments)</li> <li>Solve simultaneous equations (adjust one)</li> <li>Solve simultaneous equations (adjust both)</li> <li>Solve simultaneous equations by substitution</li> <li>Solve problems with simultaneous equations</li> <li>Solve simultaneous equations (one linear, one non-linear) using graphs (E)</li> <li>Solve simultaneous equations (one linear, one non-linear) by equating expressions (E)</li> <li>Solve simultaneous equations (one linear, one non-linear) using substitution (E)</li> </ul> | <ul style="list-style-type: none"> <li>Retrieval in class starter</li> <li>Prior knowledge whiteboard questions</li> <li>End of topic unit test intervention</li> </ul> | <ul style="list-style-type: none"> <li>Key vocabulary</li> <li>True and False Tasks</li> <li>Problem Solving Tasks</li> <li>Questioning tasks</li> <li>Key words: Numerator, Denominator, Exact Value, LCM, Simplest Form, Simultaneous, Linear, Non-linear</li> </ul> | <ul style="list-style-type: none"> <li>Personal skills               <ul style="list-style-type: none"> <li>- Thinking and problem solving</li> <li>- Working together and communicating</li> </ul> </li> <li>Fundamental skills               <ul style="list-style-type: none"> <li>- Using numbers effectively</li> <li>- Using language effectively</li> </ul> </li> <li>Careers: Engineering and architecture and planning</li> </ul> | <ul style="list-style-type: none"> <li>Plenary True and False Tasks</li> <li>Peer and self-assessment</li> <li>Feedback and reflective practise</li> <li>End of topic tests</li> <li>End of term tests</li> </ul> |
| Work Experience |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                         |                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                   |