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


|  |  |  |  | Solve two-sided inequalities. Use formulae. Generate sequences. Find the nth term of a sequence. |  |  |
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| Key questions | FOUNDATION <br> ACTIVELEARN BOOK <br> UNIT 1 PRACTICE TEST | FOUNDATION ACTIVELEARN BOOK UNIT 2 PRACTICE TEST | FOUNDATION ACTIVELEARN BOOK UNIT 3 PRACTICE TEST | FOUNDATION ACTIVELEARN BOOK UNIT 4 PRACTICE TEST UNIT 5 PRACTICE TEST | FOUNDATION ACTIVELEARN BOOK UNIT 6 PRACTICE TEST | FOUNDATION ACTIVELEARN BOOK UNIT 7 PRACTICE TEST |
| Assessment | Unit 1 Assessment | Unit 2 Assessment | Unit 3 Assessment | Unit 4 \& 5 <br> Assessment | Unit 6 Assessment | Unit 7 Assessment END OF YEAR ASSESSMENT |
| Literacy/ <br> Numeracy/ <br> SMSC/ <br> Character | Understanding and interpreting worded questions. <br> Resilience, practicing diligence and organisation with good presentation. | Understanding and interpreting worded questions. <br> Resilience, practicing diligence and organisation with good presentation. | Understanding and interpreting worded questions. <br> Appreciating how data is used to deliver information and how it can be transformed to represent information in different ways | Understanding and interpreting worded questions. <br> Recipes, sharing and best values for money. <br> Seeing how Fractions, decimals and Percentages are used in data and sales. | Understanding and interpreting worded questions. <br> Using correct phrases and terminology to explain reasons for answers <br> Using equipment correctly | Understanding and interpreting worded questions. <br> Reading and understanding data representation in papers, TV and social 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 |
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| Content | Unit 1: Number. | Unit 2: Algebra. | Unit 3: Interpreting and representing data. <br> Unit 4: Fractions, Percentages and Proportion. | Unit 5: Angles and trigonometry. | Unit 6: Graphs. | Unit 7: Area and volume (TO BE REVIEWED AND COMPLETED IN YEAR 10) |
| Skills | Students will... <br> Unit 1: Number <br> Work out the total number of ways of performing a series tasks. Estimate an answer. Find the HCF and LCM. Use powers and roots in calculation. <br> Use zero, negative and fractional indices. <br> Calculate with numbers in standard form. <br> Simplify and rationalise surds. | Students will... <br> Unit 2: <br> Use the rules of indices to simplify algebraic expression. Expand and factorise expressions. <br> Solve equations involving brackets and fractions. Substitute numbers into formulae. Rearrange formulae. Find the nth term of a linear sequences, Solve problems using non-linear sequences, Expand the product of two brackets. Factorise quadratics of the form $x^{2}+b x+c$. | Students will... <br> Unit 3: <br> Construct and use back-to-back stem and leaf diagrams. <br> Construct and use frequency polygons and pie charts. <br> Plot and interpret scatter graphs. <br> Use a line of best fit to predict values. <br> Find averages and range from grouped data. <br> Recognise misleading graphs. <br> Unit 4: <br> Add, subtract, multiply and divide fractions. <br> Solve problems involving ratios. Solve problems involving ratio and proportion, | Students will... <br> Unit 5: <br> Derive and use the sum of angle in a triangle and quadrilateral. Solve problems using interior and exterior angles of polygons. Solve problems using Pythagoras' theorem. | Students will... <br> Unit 6: <br> Find gradient and $y$ intercept of a linear equation. <br> Find the equation of a line. <br> Find the gradient through two points. Draw and interpret real-life graphs. <br> Find the equation of parallel and perpendicular lines. Draw and interpret quadratic graphs. Draw the graphs of cubic and reciprocal functions. <br> Draw the graph of a circle. | Students will... <br> Unit 7: <br> Find the perimeter and area of compound shapes. Convert between metric units area. Calculate upper and lower bound of measurements. <br> Calculate surface area and volume of prisms. Calculate the area and perimeter of sectors. <br> Calculate the volume and surface area of cylinders and spheres. <br> Calculate the volume and surface area of pyramids and cones. |
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|  |  |  | Solve real-life problems involving percentages, Calculate using fractions, decimals and percentages. |  |  |  |
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| Key questions | HIGHER ACTIVELEARN BOOK UNIT 1 PRACTICE TEST | HIGHER <br> ACTIVELEARN BOOK <br> UNIT 2 PRACTICE TEST | HIGHER <br> ACTIVELEARN BOOK UNIT 3 PRACTICE TEST PAGE 94 UNIT 4 PRACTICE TEST | HIGHER <br> ACTIVELEARN BOOK <br> UNIT 5 PRACTICE TEST | HIGHER <br> ACTIVELEARN BOOK <br> UNIT 6 PRACTICE TEST | HIGHER <br> ACTIVELEARN BOOK UNIT 7 PRACTICE TEST PAGE 237 IF 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 interpreting worded questions. <br> Resilience, practicing diligence and organisation with good presentation. | Understanding and interpreting worded questions. <br> Resilience, practicing diligence and organisation with good presentation. | Understanding and interpreting worded questions. <br> Appreciating how data is used to deliver information and how it can be transformed to represent information in different ways <br> Recipes, sharing and best values for money. <br> Seeing how Fractions, decimals and Percentages are used in data, in the new and sales. | Understanding and interpreting worded questions. <br> Recognising Trigonometric ratios and its application to real life. <br> Building on their resilience, tolerance, initiative and confidence | Understanding and Interpreting worded questions <br> Honing skills in plotting graphs of functions. <br> Resilience and patience | Understanding and Interpreting worded questions <br> Recognising and appreciating its practical application in real life <br> Viewing objects and things in different positions and perspectives. <br> Using equipment correctly <br> Resilience, practicing diligence and paying attention to details |

