Maths Year 8 – Curriculum Intent All students to improve mathematical knowledge by developing their understanding of mathematical concepts, key words, command verbs, mathematical notation, interpreting mathematical information and use effective methods to solve mathematical problems.

| | **Unit Intent** | **Content Coverage** | **Method/s of Assessment** |
|---|---|---|---|
| Term 1: Number and Probability | Consolidate learning and build on Year 7 knowledge of number skills to prepare for future units.<br><br>Develop new calculation skills to allow problem solving with a wide range of numbers.<br><br>Consolidate learning and build upon Year 7 knowledge of probability skills to develop application of knowledge to a variety of contexts. | • Number: Four Operations and Place value. Feeds forward to Year 9 Term 1.<br><br>• Number: Fractions, decimals and percentage. Feeds forward to Year 9 Term 1<br><br>• Handling Data and Probability. Feeds forward to Year 9 Term 1 | • Feed forward mini assessment<br>• Hegarty Maths Homework or Times Table Rockstars<br>• Formula, times tables and key word assessment<br>• End of term summative assessment |
| Term 2: Algebra, Transformations and Substitution | Consolidate learning and build upon year 8 knowledge of algebra to become more fluent in expanding and factorising to enable students | • Algebra, simplifying involving the four operations. Feeds forward to Year 9 term 3. | • Feed forward mini assessment<br>• Hegarty Maths Homework or Times Table Rockstars<br>• Formula, times tables and |

| | | | |
|---|---|---|---|
| | in Year 9 to be able to use these skills to problem solve.<br><br>To build upon and consolidate learning from Year 7 knowledge of symmetry and develop skills in transforming shapes. Introduce congruence and similarity and enlargement.<br><br>To build on previous Algebra skills of substitution and formulae and become more fluent at substituting numbers into formulae. Use formulae from other subjects to aid students in Science and Geography.<br><br>Develop an understanding of the difference between an identity and an equation. | • Shape, Space and Measure :- Transformations Feeds forwards to Year 9 term 3<br><br>• Using knowledge acquired in Algebra unit to feed forward to Algebra substation and using formulae. Feeds forwards to Term 3 and Year 9 terms 3 and 4. | key word assessment<br>• End of term summative assessment |
| Term 3: Shape, space and measure and Algebra, solving equations. | To consolidate learning and build on Year 7 knowledge of 2D shapes, area and perimeter and build upon this knowledge to solve problems. Learn more formulae needed to solve problems within shapes.<br><br>Extend knowledge of of volume and develop understanding of surface area of prisms by drawing out nets and understanding how the formula | • Shape, space and measure:- area and perimeter. Feeds forwards to Year 8 term 4 and Year 9 term 4. | • Feed forward mini assessment<br>• Hegarty Maths Homework or Times Table Rockstars<br>• Formula, times tables and key word assessment<br>• End of term summative assessment from topics covered in terms 1, 2 and 3 |

| | | | |
|---|---|---|---|
| | is derived.<br><br>Consolidate learning from Term3 Year 7 and solve more complicated equations and become fluent at solving easier ones. Reinforce the balancing method. | • Algebra, solving equations. Feeds forwards to Year 9 term 4 | |
| <u>Term 4: Shape, space and measure and Number.</u> | Consolidate prior learning in Year 7 Term 4 and ensure that they are fluent in number and it's applications. Use this knowledge to solve a variety of problems. Further lessons on how to use a calculator effectively and building up skills needed to solve/ calculate increasingly harder questions.<br><br>Students will consolidate learning and build on Year 7 knowledge of angles and use this knowledge to help them develop their knowledge of loci and apply it to solve real life problems. Students to learn how to draw bearings and apply this knowledge to solve real life problems. | • Number:- Number properties. Feeds forwards to Year 9 term 1 and 4.<br><br>• Shape, Space and Measures:- constructions and loci. Feeds forward to Year 9 term 4 | • <u>Feed forward mini assessment</u><br>• <u>Hegarty Maths Homework or Times Table Rockstars</u><br>• <u>Formula, times tables and key word assessment</u><br>• <u>End of term summative assessment in topics covered in terms 1,2,3 and 4.</u> |

| | | | |
|---|---|---|---|
| | Build on Year 7 knowledge of 2D and 3D shapes. Students to develop their knowledge of reasoning and apply their knowledge of parallel lines to solve angle problems. Further use of algebra in solving these problem, and use algebraic representation for unknown values in geometric contexts (Term 1). | • Shape, Space and Measures Angles in parallel lines. Feeds forwards to Year 9 term 4 | |
| Term 5: Number, ratio and proportionality, Shape, space and measure | To consolidate learning from Year 7 Term 5 and develop sharing into a given ratio and apply ratio in real life contexts.<br><br>Develop an understanding and knowledge of compound measures and to be able to convert between units accurately and with confidence.<br><br>Introduce direct and indirect proportion and develop students understanding of similar shapes. | • Number:- Ratio, proportionality. Feeds forward to Term 5 Year 9.<br><br>• Shape, Space and Measure :- Measures and compound units. Feeds forwards to Year 9 term 5. | • Feed forward mini assessment<br>• Hegarty Maths Homework or Times Table Rockstars<br>• Formula, times tables and key word assessment<br>• End of term summative assessment, all topics in terms 1-5 |
| Term 6: Title and Overview | To consolidate learning and build up Year 7 knowledge on pictograms; tally charts; introduce scatter-graphs and correlation, ensuring | Handling Data: Graphs and averages. Feeds forwards to year 9 term 6. | • Feed forward mini assessment<br>• Hegarty Maths Homework or Times Table Rockstars |

| | | | |
|---|---|---|---|
| | students are able to describe what is happening accurately. Build upon knowledge of bar charts and introduce grouped data, averages and range and estimating values on a scatter graph and to be able to discuss what scatter graphs show.<br><br>To consolidate learning and build upon year 7 knowledge of coordinates (link to Term 2).<br><br>Consolidate learning from linear sequences and use of term to term rule and the nth term. To be able to have an understanding of linear graphs and how they are constructed and how to interpret them. | • Algebra: Linear Graphs and Sequences. Feeds forward to Year 9 Term 6. | • <u>Formula, times tables and key word assessment</u><br>• <u>End of year summative assessment</u> |