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| **Subject: Maths** | | | | | | |
|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Year 10** | Unit Name:  Ratios and Fractions  Percentage and Interest  Probability  Unit Description:  Students will develop their knowledge of the ratios and fractions and build on their knowledge from KS3.  **Percentages** –Calculator methods as well as repeated methods, growth/change and decay. Financial contexts to get them used to this language needed for later on in life.  **Probability** – students will practice their number skills to revisit conversion between fractions, decimals and percentages. | Unit Name:  Represent Solutions of equations and inequalities  Angles and Bearings  Vectors  Unit Description:  Equations and inequalities - difference between & opportunity to revisit other topics such as angles on a straight line/in shapes/parallel lines, probability, area & perimeter etc. Factorising quadratics  Bearings - Accurate drawing and use of scales , understanding of trigonometry and Pythagoras from as well as using mathematics to model real-life situations.  Vectors - discovering the meaning of − 𝒂 compared to 𝒂. This will connect to exploring ‘journeys’ within shapes linking the notation 𝐴𝐵 with 𝒃 − 𝒂 etc.  Circles - The formulae for arc length and sector area, formulae for surface area and volume of spheres and cones. | Unit Name:  Collecting, representing data  Types of num and sequences  Unit Description:  ollecting and interpreting data, describe data. evaluating and criticising statistical methods and diagrams, continuous data including histograms, cumulative frequency diagrams, box plots and associated measures such as quartiles and the interquartile range. Again, the emphasis with these topics should be on interpretation (particularly in making comparisons) and not just construction.  Types of numbers, prime factorisation and associated number content such as HCF and LCM.  Sequences include surds and finding the formula for a quadratic sequence. | Unit Name:  Congruence, similarity and enlargement  Indices and roots  Unit Description:  enlargement and similarity. Parallel line angle rules, congruency and to extend enlargement to explore negative scale  Understanding powers in particular standard form. Negative and fractional indices, general non-calculator and problem-solving practice.    Assessment weeks | Unit Name:  Non –calculator projects  Maths – real life, money skills, VAT, banks, Interest rates credit cards, mortgages rent etc  Unit Description:  Non calculator collection, representation and use of summary statistics to describe data. extending and deepening, particularly in terms of interpretation of results and evaluating and criticising statistical methods and diagrams, content relating to continuous data including histograms, cumulative frequency diagrams, box plots and associated measures such as quartiles and the interquartile range.  Trigonometry is introduced as a special case of similarity within right-angled triangles. Emphasis is placed throughout the steps on linking the trig functions to ratios, rather than just functions. | Unit Name:  Maths life skills  Circles  Year 10 exam mock preparation  Unit Description:  Barclays life skills using real life examples for banking, interest rates, mortgages, rent etc  Reading timetables, shopping lists and budgets. |