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| **Year 8 Term 2.1 - Maths** | |  | | | | | |
| **Enquiry Question: What’s the point of algebra?** | | | | | | | |
| **Unit title: Grid Algebra I**  **Why now?** You had an insight into Algebra, in the **Language of Maths** unit earlier in the year. You will now explore this further to secure your knowledge on the basics of Algebra to help you make **logical** decisions and **solve problems** mathematically. This is developed further in **Year 8** when we learn about more algebra in the unit called **Grid Algebra II.** | | | | | | | |
| **Knowledge**  Students will know about… | **Application/Skills**  Students will be able to… | | **Vocabulary**  *(Tier 2 and 3)* | **Home**  **Learning** | **Assessment** | **Extra Resources**  **Extended Reading** | **Cultural**  **Capital** |
| 1. Equivalent calculations in arithmetic 2. Generalising from arithmetic to algebra and equivalent expressions in algebra 3. The laws of algebra 4. Manipulating and simplifying expressions using equivalence- collecting like terms, expanding, simplifying, substitution 5. Al Kwharizmi and the Islamic origins of algebra 6. Florence Nightingale and the use of data. | 1. Write equivalent expressions 2. Collect like terms 3. Expand single and double brackets. 4. Factorise single brackets 5. Substitute values into expressions. | | ***Tier 2***  Equivalent  Translate  Expression  Identity  Context  ***Tier 3***  Algebraic  Equation  Factorise  Coefficient  Variable | **Pre-classroom:**  Pre-lesson tasks on **google classroom** to get you thinking.  Diagnostic questions  **Post-Classroom:**  Post lessons online tasks:   * My Maths * Google Form Quizzes * Independent learning notes | Formative assessment at the end of the units in their LPS books.  This will be a combination of students presenting what they know in a creative way followed by some differentiated questions.  Summative Assessment at the end of T2. | **Enrichment:**  Explore the stages of **Rhetorical,** **Syncopated** and **Symbolic Algebra**. Who developed them and when? | **Cultural Capital:**  Can you use your knowledge of problem solving and logic to develop real world maths skills at the beautiful countryside? [https://www.audley-end-railway.co.uk](https://www.audley-end-railway.co.uk/) |
| **Numeracy**  Product  Sum  Total  Add  Subtract  Difference |