|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Year 9 Term 4.1 - Maths** | |  | | | | | |
| **Enquiry Question: What is always the same about right angled triangles?** | | | | | | | |
| **Unit title: Pythagoras**  **Why now?** This Unit builds on work from **Years 7 & 8**, where we learn about **different shapes and symmetry**, as well as the recent topic on **Similarity**. This unit now, leads on from these ideas as we look at how to find missing lengths by proving and applying this theorem. This knowledge is crucial in moving forward in KS4 where we look at **Trigonometry.** | | | | | | | |
| **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. Right angled triangles and squares on the sides 2. Pythagoras’ theorem 3. Using Pythagoras’ theorem 4. Proving Pythagoras’ theorem as an example of mathematical reasoning 5. Extending Pythagoras theorem - it works with any similar shapes drawn on the sides, link to similarity and ratio 6. Pythagoras theorem in 3 D 7. Who was Pythagora? | 1. Work in a team 2. Communicate using mathematical language with others. 3. Having a mathematical Conversation with other students 4. Justifying a Conjecture | | ***Tier 2***  Relationship  Substitute  Apply  Determine  Sketch  Diagonal  ***Tier 3***  Two Dimensional  Three Dimensional  Hypotenuse  Theorem  Axes | **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:**  Can you prove the theorem actually works in real life? <https://www.bbc.co.uk/bitesize/guides/z9gtsg8/revision/3> | Visit the British Museum and appreciate/find out who Pythagoras was, and why his philosophical and scientific discoveries are so important?  <https://www.britishmuseum.org/collection/term/BIOG77020>  Who were the Pythagoreans? What did they believe in?  . |
| **Numeracy**  Ratio  Multiply |