|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Year 7 Term 2.2 - Maths** | |  | | | | | |
| **Enquiry Question: How many names can you give a square?** | | | | | | | |
| **Unit title: Shapes and Symmetry**  **Why now?** This will build on what you have learned about shapes and geometry from **Primary school** and any experience you have of programming.  You will focus now on properties and definitions. This will prepare you for **reasoning, algebraic thinking** and other work on geometry which we look at in more detail in **geometric reasoning** in **Year 8.** | | | | | | | |
| **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. Properties of shapes- triangles, quadrilaterals, polygons 2. Working on coordinate grids with shape 3. Understanding and appreciating symmetry- line and rotational 4. Algorithms and creating shapes 5. Descartes and coordinates- a new way to think mathematically 6. Symmetry in art through history | 1. Classify different properties of shapes 2. Create an algorithm to draw a shape on the program scratch. 3. Identify exterior and interior angles in polygons. 4. Identify line and rotational symmetry in polygons | | ***Tier 2***  Properties  Justify  Irregular  Regular  ***Tier 3***  Triangles  Quadrilaterals  Polygons  Rotation  Symmetry  Midpoint  Variable  Elements  equilateral | **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:**  Build a Pacman game in Scratch.  Search for instructions on google! | **Cultural Capital:**  Watch the movie “the imitation game” about Alan Turing and the Enigma machine, then go to Bletchley Park to see the bombe machine that was perhaps the first computer! |
| **Numeracy**  Product  Sum  Total  Add  Subtract  Difference |