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| **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***PropertiesJustifyIrregularRegular***Tier 3***TrianglesQuadrilateralsPolygonsRotationSymmetryMidpointVariableElementsequilateral | **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!  |
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