|  |  |  |
| --- | --- | --- |
| **What will we be learning?**  **Geometry** – Comparing lengths, areas and volumes using ratio scale factors, Volume of cuboids and other prisms,  **Algebra** – rearranging formulae, simplifying expressions, solving quadratic equations | **Why this? Why now?**  The Geometry unit is where pupils are building upon prior knowledge learnt back in previous years and applying harder formulae to worded style problems.  Algebra unit is building upon a prior basic skill learnt in year 9 and 10 and built upon. This will allow the discovery of previous skills can still be applied to harder style questions and new content in preparation for GCSE exams. | **Key Words:**  Prism  Cuboids  Cylinders  Cross-Section  Pi  Radius  Diameter  Formulae  Area  Volume  Scale Factor  Expression  Products  Sum  Laws of Indices  Change the subject  Input and Output  Factorise  Quadratic |
| **What will we learn?**   * Know how to find a scale factor and apply it to problem * Know how to use formulae to find the area of rectangles, parallelograms, triangles and trapezia * Know how to find the area of compound shapes * Understand and apply the formulas to work out the volume of cuboids and other prisms. * Simplify and manipulate algebraic expressions involving sums, products and powers, including laws of indices. * Understand and use standard mathematical formulae * Rearrange formulae to change the subject * Interpret simple expressions as functions with inputs and outputs. * Solve basic quadratic equations algebraically by factorising | |
| **What opportunities are there for wider study?**  **Dr Frost Maths** is the primary resource that we use for homestudies and it has lots of useful revision tools.  Alongside this, you can search for a specific topic and you can either practise some questions online, or watch a video. Under the resources section, there is also a “Full Coverage” document for some topics that have a huge bank of exam questions on the topic in question.  <https://www.drfrostmaths.com/course.php?sid=-10>  **Corbett Maths -** video links as well as Practice Questions and Textbook Exercises and answers available.  <https://corbettmaths.com/contents/>  **MathsGenie -** website that has videos and exam questions (along with worked solutions).  <https://www.mathsgenie.co.uk/advance-information.html>  **Career Link**  Geometry – Construction, Landscaping | |
| **How will I be assessed?**  Mock Assessment  Homestudy Tasks  Quality of classwork | |