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| **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:**PrismCuboidsCylindersCross-SectionPiRadiusDiameter FormulaeAreaVolumeScale FactorExpressionProductsSumLaws of IndicesChange the subjectInput and OutputFactoriseQuadratic |
| **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

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| **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 AssessmentHomestudy TasksQuality of classwork |