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| **What will we be learning?*****Number:*** Arithmetic procedures with Integers (inc negatives) and decimals.***Geometry:*** Parallel and triangle angle facts.***Algebra:*** Conventions, vocabulary, interpreting and manipulating algebraic expressions. | **Why this? Why now?**Understanding of the structure of the four main mathematical operations with integers, negatives and decimal values provides a foundation of all future mathematical topics. Geometry and Algebra units provide new content discovery early in Year 7 and provide the foundation for these topics to be investigated further in Year 8, 9 and beyond. | **Key Words:**DecimalSignificant FiguresCube rootExponentIndexSquare RootVenn DiagramAdditive IdentityAssociativeCommutativeDistributiveMultiplicative IdentityRational NumberReciprocalBinomialEquationExpressionFactoriseFormulaSubstitute/SubstitutionVariableAngleParallel |
| **What will we learn?*** Understand the mathematical structures that underpin the four operations.
* Be able to apply the four operations to positive/negative integers and decimals.
* Understand parallel angle facts and angle facts in triangles.
* Be able to use and apply the laws of arithmetic, commutative, associative and distributive law and calculate using the correct order of operations.
* Use and apply algebraic notation and conventions to manipulate algebraic expressions.
* Be able to form, expand, simplify and factorise algebraic expressions.
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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](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/](https://corbettmaths.com/contents/%C2%A0)**MathsGenie -** website that has videos and exam questions (along with worked solutions).  <https://www.mathsgenie.co.uk/advance-information.html> Euclidian Geometry - <https://www.britannica.com/science/Euclidean-geometry>**Careers Link**Air Traffic Controller |
| **How will I be assessed?**Half term assessmentsHomestudy tasksQuality of classwork |