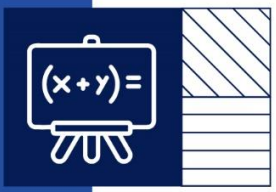
RUSKIN Community High School
Learning Together. Achieving High Standards

Maths Curriculum Map



Year	Autumn			
7				
What Will Your Child Learn During This Term	**Place Value:** • Learning what the values of each digit in an integer and decimal represent. • Comparing and ordering integers, decimals and negative numbers • Understanding equality and inequality in mathematics • Understanding number lines and how to use them Standard form and how it can help to represent very large and very small numbers.	**Properties of Number – Factors, Multiples, Squares and Roots** • Understanding factors, multiples and their uses in finding LCM and HCF of numbers • Understanding square and cube numbers • Understanding and finding roots of numbers • Identifying prime numbers • Representing any number as a product of its prime factors (prime decomposition) • Using prime decomposition to find the HCF and LCM or any numbers including algebraic terms	**Arithmetic Procedure – Integers and Decimals:** • Techniques to use the four operations with positive numbers with problem solving • Techniques to use the four operations with decimals numbers with problem solving • Techniques to use the four operations with negative numbers with problem solving • Investigating and understanding commutative, associative and distributive laws • Order of operation and calculator skills	**Expressions and Formula:** • Exploring the meaning of algebraic vocabulary and how to interpret algebraic expressions and equations. • Forming algebraic expression in different problem-solving situation. • Understanding the importance of equivalence in mathematics and simplify algebraic expressions by collecting like terms to maintain equivalence. • Investigative different function machines and using them to the forming of algebraic expression and solving algebraic equations. • Expanding and factorising algebraic expressions with single brackets. This topic will recap the student's knowledge of factors and multiples. • Substituting techniques that are used in algebra where unknown variables are given a value and students need to use their arithmetic knowledge to conclude a final result.

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Home learning/how parents can help?	**Homework** Student are given weekly homework that encourages them to use the knowledge that they have been through in high school and primary school. This is important as this allows them to retrieve previous learning and helps solidify knowledge in students' long-term memory. Students should know what day their homework will be checked and must have it when they come to that lesson.	**MyMaths** All students have access to their individual account on MyMaths: www.mymaths.co.uk Students are asked to keep their user name and password safe in their planner. They can access different lessons that we are completing in class to enhance their understanding of the learning and knowledge that they have gained.	**Schemes Of Work** All students have a scheme of work stuck in their maths books. This is a list of the topics that they will cover during the year. It is a simplified version of the steps they will cover so they can keep a track of what they have completed and what they are yet to learn.	**Presentation in Mathematics** In homework and classwork as a department we follow a very strict presentation policy and all students should be aware of it and follow it at all times. Our presentation policy is that all homework and classwork should have the questions, working out and answers. This is an important practice that will enable them to access the most marks in their exams as there is always marks allocated for working out.

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What Is The Prior Learning That Your Child Is Expected To Know	**Place Value:** Read, write, order and compare numbers up to 10 million and determine the value of each digit. Round any whole number to a required degree of accuracy. Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1 000 giving answers up to three decimal places..	**Properties of Number – Factors, Multiples, Squares and Roots** Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. Know and use the vocabulary of prime numbers, prime factors and composite numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19. Recognise and use square numbers and cube numbers, and the notation. Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes. Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.	**Arithmetic Procedure – Integers and Decimals:** Using the four operation with positive whole numbers Multiply and divide whole numbers and decimals. Multiply multi-digit numbers by a two-digit whole number using the formal written method of long multiplication. Divide numbers a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders. Use their knowledge of the order of operations to carry out calculations involving the four operations. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Solve problems involving the four operations. Use estimation to check answers to calculations Multiply one-digit numbers with up to two decimal places by whole numbers. Use written division methods in cases where the answer has up to two decimal places. Use negative numbers in context, and calculate intervals across zero.	**Expressions and Formula:** • Understand the order of operations. • Use simple formulae. • Express missing number problems algebraically. • Find pairs of numbers that satisfy an equation with two unknowns. • Be introduced to the use of symbols and letters to represent variables and unknowns in mathematical situations that they already understand (non-statutory guidance)
Home learning/how parents can help?	**MyMaths** All students will have fixed assigned tasks on MyMaths. They should use these assignments to check their prior knowledge. The class teacher will direct the students to which tasks they should complete to improve their prior knowledge. This is not part of the homework, this is extra work that students should complete to enhance their learning and increase their fluency in maths.		**Missed a Lesson** In Key Stage 3 we are using MyMaths lessons and tasks to help students catch up in the case that they have missed a lesson. This helped them to be ready to engage with their next maths lessons and increases their chance to success. The title of the lesson will be shared by the teacher and they need to find it on MyMaths and complete the lesson to enhance their learning within the classroom. Positive points will be awarded for this as it shows their resilience and high aspirations	

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