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| Subject: Mathematics Year 7 Curriculum Map 2022-2023 | | | |
| Terms | **Topics covered** and **core knowledge and skills** | Links to careers | Links to the Knowledge organiser and other additional resources |
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| Half term 1 | Place Value:  Understand place value for integers and decimals  Be able to exchange between place value columns  Recognise different representations of place value  Axioms and Arrays:  Understand the commutative and associative properties of multiplication  Represent and manipulate multiplication in models and through calculations  Understand the distributive property of calculations  Represent and use the distributive property of multiplication with addition and subtraction  Factors and Multiples:  Understand the factor properties of integers, prime numbers and square numbers  List the factors of integers and be able to decompose and organise numbers based on their factors  List common multiples for sets of integers  Represent and explain patterns in common multiples  Order of Operations:  Understand equal and unequal order of priority between addition, subtraction, multiplication and division  Interpret and write calculations involving the four operations and brackets | Place Value:  <https://www.youtube.com/watch?v=q_3x2svPzkM>  Axioms and Arrays:  <https://www.youtube.com/watch?v=xm0ZgEImZZA>  Factors and Multiples:  <https://www.youtube.com/watch?v=xyOCgnixiaE>  Order of Operations:  <https://www.youtube.com/watch?v=xm0ZgEImZZA> | This link would take you to the KO on our website  <https://classroom.thenational.academy/subjects-by-key-stage/key-stage-3/subjects/maths>  <https://www.bbc.co.uk/bitesize/subjects/zqhs34j>  <https://vle.mathswatch.co.uk/vle/>  <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/U01-Place-Value-KO.pdf>  <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/U02-Axioms-and-Arrays-KO.pdf>  <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/U03-Factors-and-Multiples-KO.pdf>  <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/U04-Order-of-Operations-KO.pdf> |
| Half term 2 | Positive and Negative Numbers:  Understand negative numbers and their absolute value  Solve addition problems involving negative numbers  Subtract positive and negative numbers from positive and negative numbers  Multiply and divide with negative numbers  Deduce other known facts from the connections between multiplication and division  Expressions, equations and inequalities:  Understand that algebra expresses mathematical structures and algebraic terms represent unknown or variable numbers  Substitute into, simplify, expand and factorise algebraic expressions  Manipulate equations and inequalities to form new equations and inequalities  Form expressions and inequalities in different contexts  Simplify and manipulate algebra in different contexts | Positive and Negative Numbers:  <https://www.youtube.com/watch?v=pbP2bdpT27w>  Expressions, equations and inequalities:  <https://www.youtube.com/watch?v=BzKMckyLYzk>  <https://www.youtube.com/watch?v=5sOw5og5sgc> | <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/U05-Negative-and-positive-numbers-KO.pdf>  <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/U06a-Expressions-Equations-and-Inequalities-KO.pdf>  <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/U06b-Expressions-Equations-and-Inequalities-KO.pdf> |