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| Subject: Mathematics Year 10 Curriculum Map 2022-2023 | | | |
| Terms | **Topics covered** and **core knowledge and skills** | Links to careers | Links to the Knowledge organiser and other additional resources |
| Half term 1 | Congruence, Similarity and Enlargement:  Compare lengths, areas and volumes using ratio notation and/or scale factors; make links to similarity  Interpret and use fractional {**Higher - and negative**} scale factors for enlargements  Apply the concepts of congruence and similarity, including the relationships between lengths, {**Higher - areas and volumes**} in similar figures  Trigonometry:  Apply Pythagoras’ Theorem and trigonometric ratios to find angles and lengths in right-angled triangles {**Higher - and, where possible, general triangles**} in two {**Higher - and three**} dimensional figures  Know the exact values of sin 𝜃, cos 𝜃, tan 𝜃 for required angles  **Higher - know and apply the sine rule and cosine rule to find unknown lengths and angles**  **Higher - know and apply to calculate the area, sides or angles of any triangle** | Congruence, Similarity and Enlargement:  <https://www.youtube.com/watch?v=Mz4nMRtTDCw>    Trigonometry:  <https://www.youtube.com/watch?v=v62GGaDpk9Q> | This link would take you to the KO on our website  <https://teachers.thenational.academy/subjects/maths/key-stages/key-stage-4>  <https://www.bbc.co.uk/bitesize/subjects/z38pycw>  <https://vle.mathswatch.co.uk/vle/>  <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/Unit01-Similarity-and-congruence-KO.pdf>  <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/Unit02-Trigonometry-KO.pdf> |
| Half term 2 | Representing solutions of equations & inequalities:  Translate simple situations or procedures into algebraic expressions or formulae; derive an equation, solve the equation and interpret the solution  Recognise, sketch and interpret graphs of linear functions  **Higher - Factorise quadratic expressions of the form 𝑥2+ bx + c**  **Higher - Solve quadratic equations algebraically by factorising**  Solve linear inequalities in one {**Higher - or two**} variables, {**Higher - and quadratic inequalities in one variable**}; represent the solution set on a number line, {**Higher - using set notation and on a graph**}  Simultaneous Equations:  Translate simple situations or procedures into algebraic expressions or formulae; derive an equation (or two simultaneous equations), solve the equation(s) and interpret the solution  Solve two simultaneous equations in two variables (linear/linear {**Higher - or linear/quadratic**}) algebraicially  Recognise, sketch and interpret graphs of linear functions and quadratic functions. | Representing solutions of equations & inequalities:  Inequalities - <https://www.youtube.com/watch?v=5sOw5og5sgc>  Quadratic Equations - <https://www.youtube.com/watch?v=QAmbU12zs8c>  Simultaneous Equations:  <https://www.youtube.com/watch?v=z5p8MQSGh0w> | <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/Unit03-Equations-and-inequalities-KO.pdf>  <https://maritime.rivoagency.com/admin/wp-content/uploads/sites/20/2022/10/Unit04-Simultaneous-Equations-KO.pdf> |