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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 solutionRecognise, 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**}) algebraiciallyRecognise, 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> |