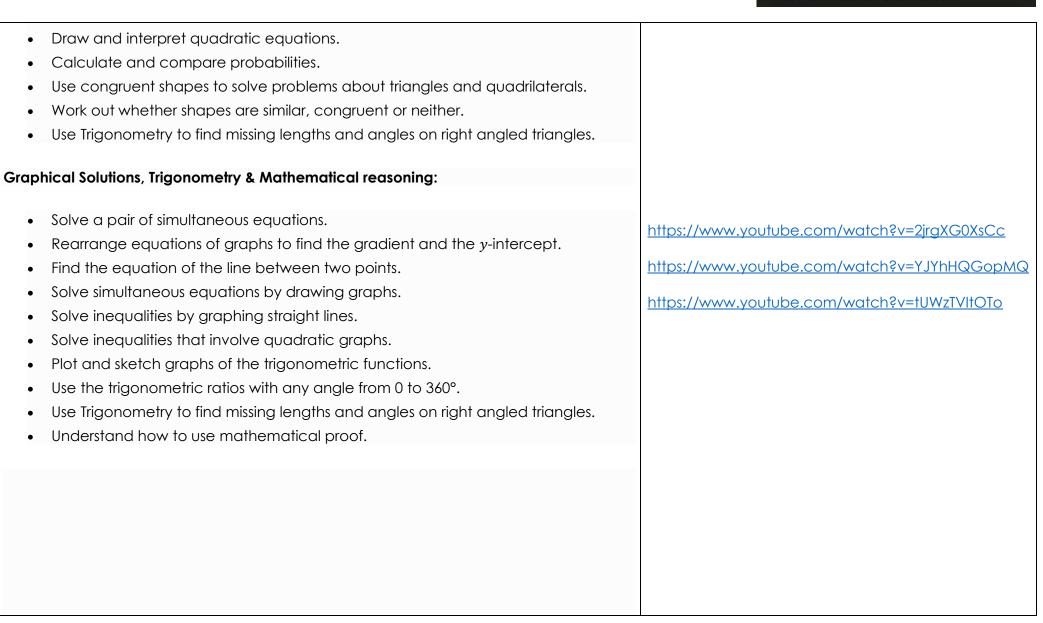
Home-School Learning Collaboration - Mathematics



Topics in this cycle: Algebra, Geometry, Probability, Polygons & Transformations. Sequences, Graphs, Probability & Comparing Shapes. Graphical Solutions, Trigonometry & Mathematical reasoning.	Taught: Summer 1 & 2	Year Group: Year 9
Key knowledge/concepts to be learnt ('Tell me about')		Websites/blogs/YouTube links and further reading to deepen and consolidate learning
Algebra, Geometry, Probability, Polygons & Transformations:		
Substitute into formulae. Use inverse operations in formulae.		https://vle.mathswatch.co.uk/
Know and use the formula for the area of a triangle and work out the area and		https://corbettmaths.com/
perimeter of shapes made from rectangles and triangles. Work out the		
circumference & area of a circle.		https://www.mathsgenie.co.uk/
 Work out the expected results when an experiment is repeated. Compare 		
experimental and theoretical probabilities. List all the possible outcomes of two		https://www.youtube.com/watch?v=ZkC2FX5TOJ8
events in sample space diagrams. Use tree diagrams and work out probabilities		https://www.wewtube.com/weteb2v=W/geowaldPeW/g
from tree diagrams.		https://www.youtube.com/watch?v=WqpwulsBqWs
Identify the properties of quadrilaterals. Use properties of triangles to work out		https://www.youtube.com/watch?v=00W2bU0So-4
missing angles. Identify and use properties of quadrilaterals.		
Transform shapes of a co-ordinate axis.		
Sequences, Graphs, Probability & Comparing Shapes:		
Use and find the nth term to generate a sequence.		
 Recognise and continue Geometric & Quadratic sequences. 		
 Learn to plot and use, linear, quadratic, and cubic graphs. 		https://www.youtube.com/watch?v=qnVVTBAfNu4
 learn to use distance-time graphs to solve problems. 		https://www.youtube.com/watch?v=AQ0tktNv9GY
 learn to recognise and interpret graphs showing constant rates of change. 		
 Solve simultaneous equations by drawing graphs. 		
 To find the equation of a line through two points. 		

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ACADEMY

Home-School Learning Collaboration – Mathematics

Key Vocabulary and	Definitions to Be Learnt	What Will the Assessment Look Like?
Ratio	the quantitative relation between two amounts showing the number of times one value contains or is contained within the other. "the ratio of computers to students is now 2 to 1" a part, share, or number considered in comparative relation to a	End of topic assessment that will take place at the end of Summer 1 & Summer 2. The assessment will include fluency, reasoning, and problem-solving
Proportion	whole. "the proportion of greenhouse gases in the atmosphere is rising"	questions.
Metric	relating to or based on the <u>metre</u> as a unit of length. "all measurements are given in metric form"	
circumference	the <u>enclosing</u> boundary of a curved geometric figure, especially a circle.	Family Learning Opportunities
area	the extent or measurement of a surface or piece of land. "the area of a triangle"	Devise a quiz on Trigonometry and test your family and friends.
right-angled triangle	A right-angled triangle is a triangle, that has one of its interior angles equal to 90 degrees or any one angle is a right angle.	Redesign your garden/living room and calculate the total cost of materials using your knowledge of
Pythagoras	a <u>theorem</u> attributed to Pythagoras that the square on the <u>hypotenuse</u> of a <u>right-angled</u> triangle is equal in area to the sum of the squares on the other two sides.	measures. Try to use as many shapes as possible.
bounds	Upper and lower bounds are the maximum and minimum values that a number could have been before it was rounded.	
error intervals	Error intervals are the limits of accuracy when a number has been rounded or truncated. They are the range of possible values that a number could have been before it was rounded or truncated.	