



Year 11 – Unit H11 Vectors & Geometric Proof



Why is this topic important?

Vectors and geometric proof are important as they can help navigate pathways through a road network. They can help you save time and money, and are often used in conjunction with satnav technology.

When would I have learnt about this topic previously?

You have not seen any of the features in this unit before.

Year 11	A	B	C	D	E	F
Vectors and vector notation	Use vectors to describe translations.	Understand and use vector notation.	Recall and use Pythagoras' Theorem. Simplify surds.	Work out the magnitude of a vector.		
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Vector arithmetic		Understand the components of a vector and use vectors to describe translations.	Calculate using vectors and represent the solutions graphically.	Calculate the resultant of two vectors.		
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Further vector arithmetic		Recall properties of triangles and quadrilaterals.	Use properties of a parallelogram to identify equal and parallel lines.	Solve problems using vectors.	Use the resultant of two vectors to solve vector problems.	
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Parallel vectors and collinear points		Add and subtract column vectors.	Identify parallel column vectors.	Express points as position vectors.	Prove lines are parallel.	Prove points are collinear.
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Solving geometric problems			Understand the relationship between ratio and fractional parts.	Solve geometric problems in two dimensions using vector methods.		
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When rating yourself do it using a number from 1 to 5. 1 means you need a lot more work on the topic, 5 means you have mastered the topic.

The key words for this topic include: Scalar, resultant, column, ratio, parallel, colinear	You will be assessed in this topic in the following ways: The topic will be included in your end of unit test and your end of term test.	This unit will help you to PREPARE for difficult future road journeys, to ACHIEVE optimal performance and results when given a task, to CARE about the quality of your diagrams, to ENJOY collaborating with peers to solve complex problems.
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Prepare students for the future; support all to **achieve** their best; **care** for themselves, others and their environment and **enjoy** education and all the joy it can bring.