



Year 10 Maths Learning Journey

Spring Term 3

Geometry: Vectors

Core knowledge	Reference
Understand and represent vectors “What do the numbers in the column vector represent?”	WORKSHEET
Use and read vector notation “What is the significance of the order of the letters when writing AB ? What does the arrow tell us?”	WORKSHEET
Draw and understand vectors multiplied by a scalar “What’s the same and what’s different about parallel vectors?”	WORKSHEET
Draw and understand addition of vectors “How do we identify the resultant of two vectors?”	WORKSHEET
Draw and understand addition and subtraction of vectors “What’s the relationship between $\mathbf{b}$ and $-\mathbf{b}$?”	WORKSHEET
Explore vector journeys in shapes (H) “Why is there sometimes more than one way of writing a vector journey?”	WORKSHEET
Explore quadrilaterals using vectors (H) “Can a square be described by four equal vectors? Why not? What is the same and what’s different about the four vectors that describe a square?”	WORKSHEET
Understand parallel vectors (H) “How do we know, without drawing them, whether column vectors are parallel to each other?”	WORKSHEET
Explore co-linear points using vectors (H) “Explain why parts of the same line are always parallel to each other.”	WORKSHEET
Use vectors to construct geometric arguments and proofs (H) “What do the words ‘show, justify and prove’ mean?”	WORKSHEET

Learning Checkpoints

LC Title	Completed	Dirt
Vectors		

Key Vocabulary:

Collinear – lying on a straight line.

Column Vector – Vector written as vertical separation of horizontal and vertical components.

Magnitude – “size”

Multiple – result of the multiplication of two quantities.

Parallel – Having the same gradient/direction.

Resultant vector – Vector which is the result of the combination (sum) of two vectors.

Scalar – Quantity with only magnitude.

Vector – Quantity with a magnitude & a direction.

Vector Journey – Method of finding vector between two nodes by exploring vectors between intermediary nodes and finding resultant vectors.