Physics > Big idea PFM: Forces and motion > Topic PFM2: Moving by force > PFM2.2: Motion graphs

Progression toolkit: Motion graphs

Learning focus	Information about the motion of an object can be summarised on a distance-time graph: the plot shows the object's distance from the start at a given time and the slope (gradient) at that point shows its speed.				
As students' conceptual understanding progresses they can:	CONCEPTUAL PROGRESSION →				
	Read values of distance or time off the axes of a distance-time graph for a plotted point **P**	Describe the changes to an object represented by a move from one point on a distance-time graph to another	Describe motion of an object represented by straight lines on a distance-time graph	Explain how a distance-time graph shows the changing position of an object	Explain how a distance-time graph shows the changing speed of an object **B**
Diagnostic questions	Off the line	Plot story	Line story	Where's Sally?	The speed of Dwight
			Two slopes		
Response activities	Plot the line	Speedy graphs			

Key:

P   Prior understanding from earlier stages of learning   **B**   Bridge to later stages of learning

Off the line

Linking ideas

Plot story

Simple multiple choice

Line story

Simple multiple choice

Two slopes

Two-tier multiple choice

Where's Sally?

Confidence grid

The speed of Dwight

Simple multiple choice

Plot the line

Application and practice

Speedy graphs

Application and practice - practical