KS3 – Year 8

Speed

What's the science story?

What is speed? How do we measure it? How can we go faster?

Previous knowledge:

Key stage 2 forces topics.

Next steps…

KS4

Physics – paper 2

Keywords

Speed,
Vector,
Time, Distance, Variables, Force

Analyse
Evaluate
Conclusion
Investigate
Pattern
Trends

Working scientifically skills:

- WS1
- WS2
- WS3
- WS7
- WS8
- WS9
- WS10
- WS13
- WS14
- WS15
- WS16

Assessments:

Exit ticket - Speed

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Lesson No. and Title	Learning objectives	National Curriculum	Practical equipment
1. Speed	ARE - To calculate speed using distance and time. AGD - To rearrange the speed equation to calculate a different subject.	• speed and the quantitative relationship between average speed, distance and time (speed = distance ÷ time) • the representation of a journey on a distance-time graph • relative motion: trains and cars passing one another	
2. Investigating Speed	ARE – To apply the speed formula triangle to a moving object. AGD – To analyse the results from a scientific investigation.	• speed and the quantitative relationship between average speed, distance and time (speed = distance ÷ time) • the representation of a journey on a distance-time graph • relative motion: trains and cars passing one another	Falling cupcake cases Metre ruler Cupcake case Stopwatch
4.Speed/distance graphs	ARE – Draw a distance-time graph. AGD - Interpret a distance-time graph.	• speed and the quantitative relationship between average speed, distance and time (speed = distance ÷ time) • the representation of a journey on a distance-time graph • relative motion: trains and cars passing one another	

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4. Considering results	ARE – To draw a conclusion based on your results. AGD - To use your graph to make predictions and estimates	• speed and the quantitative relationship between average speed, distance and time (speed = distance ÷ time) • the representation of a journey on a distance-time graph • relative motion: trains and cars passing one another	