Speed

Answers

KS3 science quick questions

This topic online

Activate 2: Motion and pressure | Exploring Science 9I

Q	Answer	Remember
1	speed	Speed tells you how quickly distance is covered.
2	m/s	Metres for the distance, seconds for the time: m/s.
3	speed = distance / time	Distance on top, time underneath - you share the distance out over the time.
4	5 m/s	300 ÷ 60 = 5, so she covers 5 metres every second.
5	constant	Straight line = same distance every second = constant speed. A curve means the speed is changing.
6	60 km/h	Kilometres divided by hours gives km/h: 120 ÷ 2 = 60.
7	600 m	Distance = speed × time, so 20 × 30 = 600 m.
8	20 s	Time = distance ÷ speed, so 100 ÷ 5 = 20 s.
9	average speed	Average speed smooths out all the fast and slow bits into one number.
10	stationary	Time keeps going but the distance does not change, so the object has stopped.
11	speed	Steeper line = more distance each second = faster.
12	slow down	Balanced forces keep the motion the same. An unbalanced force changes it - here it slows the ball.
13	0 m/s	To each driver, the other car seems to stay still beside them.
14	5 m/s	Moving towards each other, the speeds add up: 3 + 2 = 5.
15	stopwatch	Light gates are more accurate because they do not depend on your reaction time.
16	3 m/s	Change 1.5 km to 1500 m first, then 1500 ÷ 500 = 3.
17	480 m	2 minutes is 120 s, so 4 × 120 = 480 m.
18	2 m/s	Total distance 1000 m, total time 500 s (the rest counts too), so 1000 ÷ 500 = 2.
19	accelerating	A line getting steeper means more distance each second, so the speed is rising.
20	She moves along with the bus at the same speed, so compared with the bus she is still, even though she is moving compared with the road.	Speed always depends on what you compare it with.

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