



KEC

# K Education Centre

## GCSE Physics – Motion (Edexcel)

SP1: Motion

Assignment Questions

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Year 2022

## SP1: Motion

Q: What are vectors and Scalars? Give examples.

Q: Explain why a car will accelerate if it is going around a circle if it is moving at constant speed.

Q: Plot a distance time graph for a cyclist if its moving at speed of 5 m/s for first 60 seconds, 3 m/s for 120 seconds and then rest for 30 seconds , start moving more slowly at speed of 2 m/s for next 15 seconds.

Q: A car travelling at 20 m/s accelerates at  $2.5 \text{ m/s}^2$  over a distance of 80 m. Calculate its final velocity.

Q: A train is travelling at 45 m/s . It slows down with acceleration of  $-0.8 \text{ m/s}^2$ . How much time it will take it to stop and how far it will travel while it is stopping?

Q : Following is the data for a bus journey. Draw a velocity time graph for the journey and calculate the total distance travel by the bus.

Time (seconds)	Velocity (m/s)
0	0
20	10
40	40
60	40
80	0