

Forces

1. Speed

CONCEPT 2

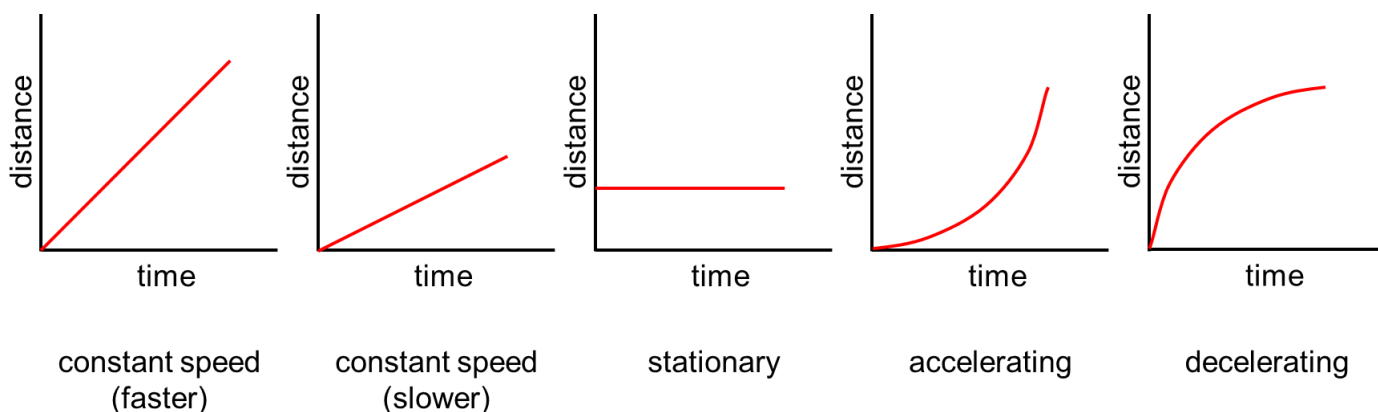
DESCRIBING JOURNEYS WITH DISTANCE-TIME GRAPHS

NOTES

A distance-time graph is a way to display the speed of an object. The x-axis shows the time for a journey and the y-axis shows the distance covered. The units for the distance and the time will determine the units for the speed.

We need to be able to understand what different straight lines look like on a distance-time graph. **A straight line on a distance-time graph means that the speed is constant.** If a straight line is steeper then this means that more distance is being covered in the same time – the **average speed** is greater. If a straight line is horizontal for certain time then the object will be **stationary (not moving)** – the speed is still constant but it will be zero.

Acceleration is when the speed of the object increase in a certain time. This will be seen on a distance-time graph as a curve upwards. **Deceleration** is when the speed of the object decreases in a certain time. This will be seen on a distance-time graph as a curve downwards.



Complex journeys will be described on a distance-time graph by a combination of these sections.