CP1a Vectors and scalars

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| Word | Pronunciation | Meaning |
| acceleration | ack-**sell**-er-ay-shun | A measure of how quickly the velocity of something is changing. It can be positive if the object is speeding up or negative if it is slowing down. Acceleration is a vector quantity. |
| displacement |  | The distance travelled in a particular direction. Displacement is a vector, distance is not. |
| distance |  | How far something has travelled. Distance is a scalar, and has no direction. |
| force |  | At the simplest level a force is a push, pull or twist. Forces acting on an object can cause it to accelerate. Force is a vector quantity. |
| magnitude | **mag**-nee-tyood | The size of something, such as the size of a force or the measurement of a distance. |
| mass |  | A measure of the amount of material that there is in an object. Mass is a scalar quantity. |
| momentum | mO-**men**-tum | A measure of motion, mass multiplied by velocity. Momentum is a vector quantity. |
| scalar quantity | **skay**-lar | A quantity that has a magnitude (size) but not a direction. Examples include mass, distance, energy and speed. |
| speed |  | A measure of the distance an object travels in a given time. Usually measured in metres per second (m/s). It is a scalar quantity. |
| vector quantity |  | A quantity that has both a size and a direction. Examples include force, velocity, displacement, momentum and acceleration. |
| velocity |  | The speed of an object in a particular direction. Usually measured in metres per second (m/s). Velocity is a vector, speed is not. |
| weight |  | The force pulling an object downwards, it depends upon the mass of the object and the gravitational field strength. Weight is a vector. |

CP1b Distance/time graphs

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| Word | Pronunciation | Meaning |
| average speed |  | The speed worked out from the total distance travelled divided by the total time taken for a journey. speed = distance travelled /time |
| distance/time graph |  | A graph of the distance travelled against time for a moving object. The gradient of a line on a distance/time graph gives the speed. |
| instantaneous speed |  | The speed at one particular moment in a journey. |
| gradient |  | A way of describing the steepness of a line on a graph in numbers. It is calculated by taking the vertical distance between two points and dividing by the horizontal distance between the same two points. |

CP1c Acceleration

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| Word | Pronunciation | Meaning |
| deceleration | dee-**sell**-er-ay-shun | When an object is slowing down. |

CP1d Velocity/time graphs

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| Word | Pronunciation | Meaning |
| velocity/time graph |  | A graph of velocity against time for a moving object. The gradient of a line on the graph gives the acceleration and the area under the graph gives the distance travelled. |