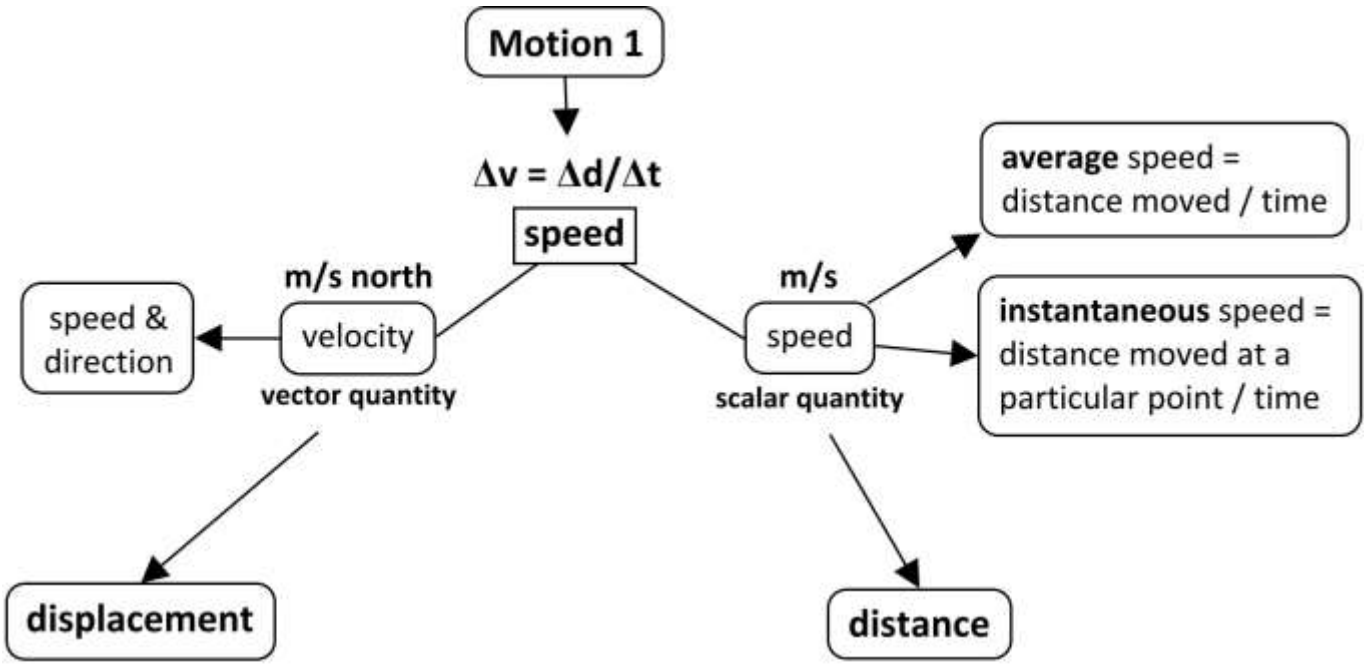
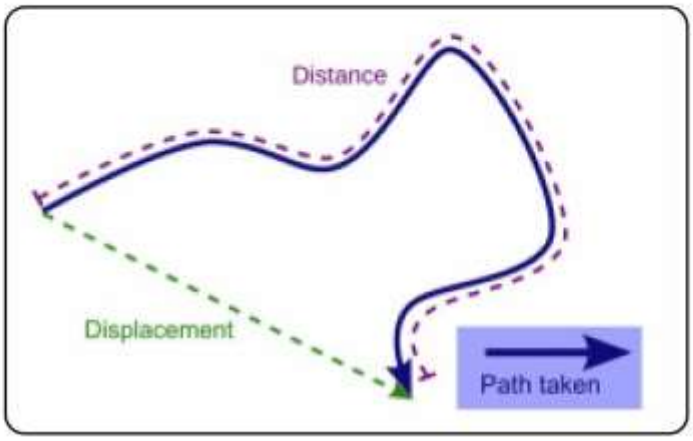


- how far out of place an object is
- shortest distance from initial to final position
- overall change in position

- how much ground an object has covered



acceleration-time graph	A graph of acceleration (m/s^2) vs time (s)
average acceleration	change in velocity / time, V_1-V_0 / t or ΔV/t Unit = m/s^2
average speed	distance / time, d/t. Unit = m/s
centripetal force	A net inward force exerted on a body in circular motion
circular motion	movement in the shape of a circle or ring
deceleration	a negative acceleration
displacement	the shortest distance from the initial to the final position of something - overall change in position

distance	how much ground an object has covered – a scalar quantity
distance moved	area under velocity / time graph
distance-time graph	Gradient of this graph = speed = y/x – distance m / time s
force	mass x acceleration. F=ma. Unit= N. A dynamic influence that changes a body from a state of rest to one of motion or changes its rate of motion.
gravitational acceleration	the acceleration for any object moving under the sole influence of gravity
gravity	an attractive force between particles with mass
mass	a physical quantity expressing the amount of matter in a body
motion graph	a graph which represents the motion of an object
newton	the SI unit of force, equal to the force that produces an acceleration of one meter per second per second on a mass of one kilogram. (1kg/m/s2 =1N)
Newton's First Law of Motion	A body remains at rest or in motion with a constant velocity unless acted upon by an external force.
orbit	the path followed by an object revolving around another object
position-time graph	see - distance-time graph
reference system	(aka coordinate system, frame of reference, reference frame). A system that uses coordinates to establish position
scalar	a quantity, such as time, distance or temperature, that has magnitude but not direction, compare vector
speed	a **scalar** measure of the rate of movement of a body expressed either as the distance travelled divided by the time taken (average _____) or the rate of change of position with respect to time at a particular point (instantaneous _____). (m/s)
speed - average	Average Speed = (Total distance covered throughout the journey)/(Total time taken for the journey) v = d/t a scalar quantity
speed-time graph	Gradient of this graph is numerically equal to the acceleration. In this graph the area under the line is numerically equal to the distance travelled. aka velocity-time graph
speed - instantaneous	**Instantaneous velocity** is defined as the rate of change of position for a time interval which is very small (almost zero). Measured using SI unit m/s plus direction (e.g. east, west, up, down, left etc). **Instantaneous speed** is the magnitude of the instantaneous velocity. It has the same value as that of instantaneous velocity but does not have any direction.
steady acceleration	uniform acceleration
terminal velocity	the velocity at which a falling body moves through a medium, as air, when the force of resistance of the medium is equal in magnitude and opposite in direction to the force of gravity.
uniform rectilinear motion	motion in a straight line
vector	A quantity, such as the velocity of an object or the force acting on an object, that has both magnitude and direction. Compare scalar
velocity	ratio of change of position to time interval over which change takes place m/s 90° (=East) – a **vector** quantity. 10 m/s at 90° **$\Delta v = \Delta d/\Delta t$**
velocity-time graph	Gradient of this graph is numerically equal to the acceleration. In this graph the area under the line is numerically equal to the distance travelled. aka speed-time graph
weight	mass x gravitational acceleration. W=mg. Unit= N.