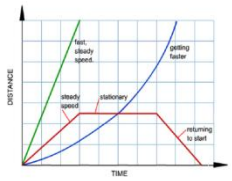
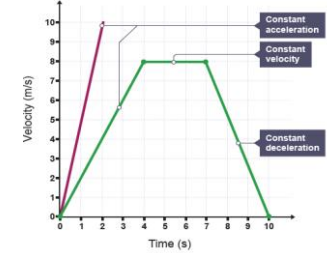


Speed, v	<ul style="list-style-type: none"> •The distance covered by an object per second. •Measured in m/s
Distance –Time graph	<ul style="list-style-type: none"> •A graph that shows how the distance covered by an object changes with time. •A straight line sloping upwards shows an object is moving at a constant speed. •The gradient shows the speed of the object. •Steeper gradient = faster object •A horizontal line shows the distance isn't changing as time changes → the object is stationary
Velocity, v	<ul style="list-style-type: none"> •The speed in a given direction •Velocity is a vector quantity •Two objects can have the same speed but different velocities if they are travelling in opposite directions •An object moving in a circle can travel at a constant speed but have a changing velocity as the direction is constantly changing
Vector	<ul style="list-style-type: none"> •A quantity that has magnitude and direction • Examples: Velocity, force, acceleration, momentum, displacement
Scalar	<ul style="list-style-type: none"> •A quantity that only has magnitude •Examples: energy, time, temperature, speed, distance
Displacement , s	<ul style="list-style-type: none"> • The distance travelled in a given direction
Acceleration, a	<ul style="list-style-type: none"> •When an object speeds up. •The change in the velocity of an object per second •Measured in m/s² •If an object's velocity changes, it accelerates.
Deceleration	<ul style="list-style-type: none"> •When an object slows down •Represented as negative acceleration
Final Velocity, v	<ul style="list-style-type: none"> •The velocity of an object
Initial Velocity, u	<ul style="list-style-type: none"> •The velocity of an object at the start of the journey •Usually 0 m/s!



Velocity –Time graph	<ul style="list-style-type: none"> •A graph that shows how the velocity of an object changes with time. •Be careful not to confuse with a distance-time graph- check the y-axis! •The gradient shows the acceleration •Steeper gradient = bigger acceleration •Straight line sloping upwards= positive acceleration •Straight line sloping downwards = negative acceleration (deceleration!) •Horizontal line = no acceleration → the object is moving at a constant speed •Curved line = changing acceleration •Area under v-t graph = distance travelled •Speed at any given moment on a v-t graph = gradient of tangent drawn at that point on the graph
Gradient	<ul style="list-style-type: none"> •The steepness of a line on a graph. •To find the gradient, turn the line into a triangle •Gradient = height of triangle, $y \div$ base of triangle, x



Key Equations To Learn	
Speed, v	Speed = distance \div time $v = s \div t$
Acceleration, a	Acceleration = (Final Velocity – Initial Velocity) \div Time $a = (v - u) \div t$