Vectors and scalars	•A vector is a quantity that has magnitude (size) and direction, e.g. , weight, forces, acceleration, momentum, displacement •Vectors can be represented using arrows that show the size and direction of the quantity •A scalar quantity has only size and no direction, e.g. Temperature, energy, distance, mass, time
Forces and Newton's Third Law	•Force is measured in Newtons, N •Forces can change the shape or motion of an object. A force can also act to change the state of rest of an object (i.e make it start moving!) •Newton's Third Law says that when two objects interact, they exert equal and opposite forces on each other
Resultant force	•A single force that has the same effect as all the forces acting on an object •To find the resultant force when two forces act on an object along the same line, add them together if they act in the same direction or work out the difference if they act in opposite directions.
Newton's First Law	•If the forces acting on an object are balanced, the resultant force acting on it will be zero and it will move at the same speed in the same direction, or remain stationery if at rest.
Centre of mass	•This is the point where the mass of an object is thought of as being concentrated •In uniform objects, i.e. a ruler, the centre of mass is at the midpoint •If an object is freely suspended, it will come to rest with the CoM directly underneath where it is suspended from. This is a way to find the centre of mass of a non-uniform object.