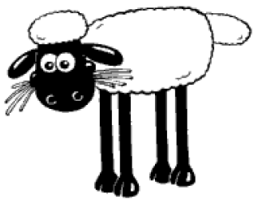
Rate of increase in speed (= change in speed/time)	Drag that a moving object will experience when moving through the air	Two or more forces that cancel out	Acceleration created by the force required to keep an object moving in a circle
Acceleration	**Air resistance**	**Balanced forces**	**Centripetal acceleration**
Force required to keep an object moving in a circle	Momentum after minus momentum before	Velocity after minus velocity before	Motion in a circle caused by a resultant force acting towards the centre of the circle
Centripetal force	**Change in momentum**	**Change in velocity**	**Circular motion**
The distance around a circle	Objects hitting each other	Sum of masses involved	Squeeze
Circumference	**Collision**	**Combined mass**	**Compress**
Energy cannot be created or destroyed	Momentum before equals momentum after ALWAYS	Kept the same	Speed that stays the same
Conservation of energy	**Conservation of momentum**	**Conserved**	**Constant speed**

Rate of decrease in speed (= change in speed/time)	Quantity that must be given as well as magnitude (size) with a vector quantity	Collision where kinetic energy is conserved	Energy stored in a stretched or compressed spring
Deceleration	**Direction**	**Elastic collision**	**Elastic potential energy**
A scalar physical quantity that is a property of objects which is conserved by nature. E.g. kinetic, electrical and sound	When an object is at rest or moving uniformly (Newton's first law)	How much a spring is extended (stretched or compressed) compared to its natural length	A push or pull in a particular direction
Energy	**Equilibrium**	**Extension of a spring**	**Force**
Terminal velocity – when the weight force and air resistance add to create no net force	A force that resists motion	Energy stored in a gravitational field when an object is moved vertically upwards	The maximum vertical displacement of a projectile (maximum point of the parabola)
Free fall under gravity	**Friction**	**Gravitational potential energy**	**Highest point**
A circle that involves no gain or loss in gravitational potential energy	Vector quantities can be separated into two components at 90° to each other – horizontal and vertical	The range of a projectile (how far it travels horizontally before returning to the same vertical height).	Change in momentum (caused by an external force)
Horizontal circle	**Horizontal component**	**Horizontal distance**	**Impulse**

Collision where kinetic energy is not conserved (some energy is converted to sound or heat etc.)	At the start	Energy created by movement	Amount of matter an object has
Inelastic collision	**Initial**	**Kinetic energy**	**Mass**
Mass multiplied by velocity	Sum of all the forces acting on an object (sometimes called the "resultant" force)	Shape that a projectile follows	Point upon which an object turns or rotates
Momentum	**Net force**	**Parabola**	**Pivot**
Rate of doing work (= Energy change/time)	Parabolic motion of an object projected through the air	Distance from centre of circle to edge	Horizontal distance
Power	**Projectile motion**	**Radius**	**Range**
Force exerted by an object (e.g. the planet) caused by an equal and opposite force (e.g. your weight) – Newton's 3rd law	How objects move in relation to each other	Stationary	Force required to extend or compress a spring by one metre
Reaction	**Relative motion**	**Rest**	**Spring constant**

Force exerted by an object (e.g. the planet) caused by an equal and opposite force (e.g. your weight) – Newton's 3rd law	Force in object that opposes them being stretched	Turning force (not applied through the centre of mass)	Two or more forces that do not cancel out
Support force	**Tension force**	**Torque**	**Unbalanced force**
Numerically add vectors by use of Pythagoras's theorem ($c^2 = a^2 + b^2$ providing vectors are at right angles to each other) to calculate magnitude and direction	A vector (e.g. force) separated into vertical and horizontal components	Scale diagram to show magnitude and direction of vectors	Speed in a particular direction
Vector addition	**Vector components**	**Vector diagram**	**Velocity**
Vector quantities can be separated into two components at 90^O to each other – horizontal and vertical	= Mass (m) x acceleration due to gravity (g)	Process of transforming energy from one form to another	
Vertical component	**Weight**	**Work**	
			
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