

Maximum displacement from equilibrium position during SHM	Rate of increase in angular velocity (= change in velocity/time)	Angle an object rotates	Mass x angular velocity for an object undergoing circular motion
<b>Amplitude</b>	<b>Angular Acceleration</b>	<b>Angular displacement</b>	<b>Angular momentum</b>
Distance travelled in a circle divided by time (identical to angular frequency)	Two or more forces that cancel out	Force required to keep an object moving in a circle	Momentum after minus momentum before
<b>Angular velocity</b>	<b>Balanced forces</b>	<b>Centripetal force</b>	<b>Change in momentum</b>
Velocity after minus velocity before	Motion in a circle caused by a resultant force acting towards the centre of the circle	Objects hitting each other	Sum of masses involved
<b>Change in velocity</b>	<b>Circular motion</b>	<b>Collision</b>	<b>Combined mass</b>
Energy cannot be created or destroyed	Momentum before equals momentum after ALWAYS	Kept the same	Speed that stays the same
<b>Conservation of energy</b>	<b>Conservation of momentum</b>	<b>Conserved</b>	<b>Constant speed</b>

Any effect causing loss of energy during SHM e.g. air resistance	An orbit that is circular	Collision where kinetic energy is conserved	Frequency expressed in radians per second
<b>Dampen</b>	<b>Circular orbit</b>	<b>Elastic collision</b>	<b>Angular frequency</b>
A scalar physical quantity that is a property of objects which is conserved by nature. E.g. kinetic, electrical and sound	Where the mass wants to be in simple harmonic motion	How much a spring is extended (stretched or compressed) compared to its natural length	A push or pull in a particular direction
<b>Energy</b>	<b>Equilibrium Position</b>	<b>Extension of a spring</b>	<b>Force</b>
Symbol, $g$ , strength of the gravitational field strength at a particular point	Energy stored in a gravitational field when an object is moved vertically upwards	Number or waves or oscillations per second	$9.81 \text{ ms}^{-2}$ on Earth force pulling towards the centre of mass
<b>Gravitational Field Strength</b>	<b>Gravitational Potential Energy</b>	<b>Frequency</b>	<b>Gravity</b>
A circle that involves no gain or loss in gravitational potential energy	Change in momentum (caused by an external force)	Collision where kinetic energy is not conserved (some energy is converted to sound or heat etc.)	Energy created by movement
<b>Horizontal circle</b>	<b>Impulse</b>	<b>Inelastic collision</b>	<b>Kinetic energy</b>

Amount of matter an object has	Mass multiplied by velocity	Sum of all the forces acting on an object (sometimes called the "resultant" force)	One complete to and fro movement of a vibrating object
<b>Mass</b>	<b>Momentum</b>	<b>Net force</b>	<b>Oscillation</b>
A mass ("bob") tied to a piece of string	For a particular vibration, the time for one complete oscillation	Point upon which an object turns or rotates	Distance from centre of circle to edge
<b>Pendulum</b>	<b>Period</b>	<b>Pivot</b>	<b>Radius</b>
One full circle ( $2\pi$ )	Measure of the reluctance of an object to change its rotation	Repeated motion where force is always directed towards the equilibrium position	Force required to extend or compress a spring by one metre
<b>Revolution</b>	<b>Rotational Inertia</b>	<b>Simple Harmonic Motion</b>	<b>Spring constant</b>
Velocity in a perpendicular direction to the centripetal force at a given instant	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
<b>Tangential velocity</b>	<b>Tension force</b>	<b>Torque</b>	<b>Unbalanced force</b>

$6.67 \times 10^{-11}$ Used in the formula for Newton's Law on universal gravitation	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
<b>Universal Gravitational Constant</b>	<b>Vector addition</b>	<b>Vector components</b>	<b>Vector diagram</b>
Speed in a particular direction	Vector quantities can be separated into two components at $90^\circ$ to each other - horizontal and vertical	$= \text{Mass (m)} \times \text{acceleration due to gravity (g)}$	Apparent loss of weight of a body in free-fall
<b>Velocity</b>	<b>Vertical component</b>	<b>Weight</b>	<b>Weightless</b>