

# AMUSEMENT PARK PHYSICS GLOSSARY

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Here are some physics concepts that you will encounter today. Most of them should be familiar to you after the exciting physics class you've been in this year.

**ACCELERATION:** Time rate of change of velocity (either speed or direction) of motion.

**ACCELEROMETER:** A device to measure acceleration.

**AIR RESISTANCE:** Force resisting motion of a body through air due to the frictional forces between the air and body.

**AMPLITUDE:** The maximum height of the wave above or below zero level.

**ANGULAR ACCELERATION:** Time rate of change of angular velocity.

**ANGULAR VELOCITY:** Time rate of change of angular position.

**CENTRIPETAL FORCE:** A force on an object pulling or pushing the object towards the center of its curved path.

**CONSERVATION OF ENERGY:** Basic tenet of physics stating that energy can neither be created nor destroyed in any process, though it may change form.

**CONSERVATION OF MOMENTUM:** The total momentum of a system is constant whenever the net external force on the system is zero.

**ELASTIC COLLISION:** A collision in which kinetic energy is the same before and after the collision.

**FORCE:** A push or pull. The time rate of change (direction and magnitude) of momentum.

**FREQUENCY:** The number of waves that pass a particular point in one second.

**FRICTION:** A retarding force that resists the motion of a body.

**G-FORCE:** Ratio of the magnitude of acceleration on a body to the acceleration of gravity at sea level on Earth ( $g = 9.8 \text{ m/s}^2$ ).

**GRAVITY:** Attractive force between two bodies, proportional to their masses.

**IMPULSE:** Product of the magnitude of a force on a body times the time over which the force acts on the body.

**INELASTIC COLLISION:** A collision in which kinetic energy decrease as a result of the collision.

**INERTIA:** Tendency of a body to remain at rest or in uniform motion in a straight line.

**KINETIC ENERGY:** The energy of a body associated with its motion.