

Momentum Key Terms

On-level Physics

The following are the terms you should be familiar with in order to properly complete this unit. You are expected to be able to define each as well as apply these terms in any situation during this and subsequent units of study.

momentum - a vector quantity describing inertia in motion; $\vec{p} = m \cdot \vec{v}$;
measured in the SI units of kg·m/s

impulse - a change in momentum; the cause of a change in momentum

elastic collision - A collision in which both momentum and kinetic energy are conserved; objects bouncing off of each other usually represents an elastic collision.

inelastic collision - A collision in which momentum is conserved while the kinetic energy is not conserved; objects sticking together usually represents an inelastic collision.

system - collection of objects which is being studied; in a closed system nothing (objects, forces, momentum, or energy) gets in or out

law of conservation of momentum - momentum cannot be created or destroyed, only transferred from one object to another; for any type of collision, the total momentum of the system just before the collision equals the total momentum of the system just after the collision.