



## Momentum in Space

The demonstrations in this clip show collisions which occur in a closed (no mass enters or leaves) and isolated (no external force acts on the bodies) system. There are two types of collisions to consider: elastic and inelastic. In an elastic collision the kinetic energy of the colliding body can change but the total kinetic energy of the system remains the same. In an inelastic collision, kinetic energy is not conserved but conservation of momentum is. In everyday examples of collisions on Earth, energy is lost through thermal energy or sound. For example, when a ball is struck by a bat or when two cars collide.