

Distinguish, differentiate, compare, state and explain what is the main difference between Elastic and Inelastic Collisions with examples. Comparison and Differences.

Difference between Elastic and Inelastic Collisions

1. In an elastic collision, the two objects do not stick together, they will bounce off each other while in completely inelastic collisions the two colliding objects stick together and move with the same post-collision speed.
2. In an elastic collision, Kinetic Energy is conserved while in completely inelastic collision Kinetic Energy is not conserved.
3. Elastic collisions take more work and one must use both the conservation of momentum and conservation of energy to solve it. Examples of elastic: when hard, rigid objects like marbles or billiard balls collide. Completely inelastic collisions are easy to solve, we can just use conservation of momentum to solve it.
4. In an elastic collision, forces involved must be conservative. In inelastic collisions, some or all forces involved may be non-conservative.

Steady Run