

S6 Conservation of Momentum

E.Q.: What physics principles do the traffic-accident investigators use to "reconstruct" the accident?

Law of conservation of momentum

the total momentum before a collision is equal to the total momentum after the collision if no external forces act on the system

- traffic-accident investigators use this law in their analysis (specifically they look at tread marks, position of automobiles, damage to automobiles, etc.)
- if you know the mass and velocities of 2 objects before a collision, you can accurately predict the velocities after the collision