

Duchesne's Car



Directions:

After hearing and visualizing Mrs. Duchesne's accident, students will write or orally explain each of Newton's Laws to Mr Veayo concerning the crash. Students will use some of the terms below:

inertia, force, mass, energy, acceleration, friction, crumple zone, airbag, seatbelt, child seat, and momentum kinetic and potential energy.

1. An object at rest will remain at rest unless acted on by an unbalanced force. An object in motion continues in motion with the same speed and in the same direction unless acted upon by an unbalanced force.

This law is often called "the law of inertia".

Objects involved

- Frame of Reference
- Speed
- Velocity
- Acceleration
- Inertia
- Force
- Momentum
- Potential Energy
- KineticEnergy
- Mass

2. Acceleration is produced when a force acts on a mass. The greater the mass (of the object being accelerated) the greater the amount of force needed (to accelerate the object). $F=ma$

Objects involved

- Frame of Reference
- Speed
- Velocity
- Acceleration
- Inertia
- Force
- Momentum
- Potential Energy
- KineticEnergy
- Mass

3. For every action there is an equal and opposite reaction.

Objects involved

- Frame of Reference
- Speed
- Velocity
- Acceleration
- Inertia
- Force
- Momentum
- Potential Energy
- KineticEnergy
- Mass