

Class Note 3: Physics – Newton's Laws of Motion

1. **First Law (Inertia):** Object stays at rest/motion unless acted upon.

- Example: Seatbelt stops you when car brakes suddenly.

2. **Second Law:** $F = ma$ (force = mass \times acceleration).

- Heavier objects require more force to accelerate.

3. **Third Law:** For every action, there's an equal & opposite reaction.

- Example: Rocket launches by pushing exhaust gases down.

- **Applications**

- Sports, car safety, rocket propulsion.