

Name: _____ Date: _____

Physical Science Notes 9

Inertia

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- Inertia is the tendency of an object to resist any change in its motion.
- Once an object is in motion, it will keep moving at the same velocity and in the same direction unless an unbalanced force acts upon it.
 - This means that the velocity of an object remains constant unless a force changes it.
 - Think of a car crash, where a person is not wearing a seat belt. How is inertia seen here?
 - Why is it different when a person is wearing a seat belt?

Newton's First Law of Motion

- The British Scientist Sir ^{Isaac}~~Newton~~ Newton stated rules of motion that apply to everything on Earth.
- His first rule is called **Newton's First Law of Motion**.
 - Newton said that an object moving at a constant velocity keeps moving at that velocity unless a net force acts on it.
 - * ○ Since this is about the same thing as inertia, Newton's first law is often called the Law of Inertia.