

Name: Key
Science 7

Date: _____
Forces and Motion

Aim: I can explain Newton's first law of motion.

Do Now:

Notes:

Newton's First Law: Law of Inertia

- An object in motion stays in motion unless an outside force acts upon it. An object at rest stays at rest unless an outside force acts upon it.

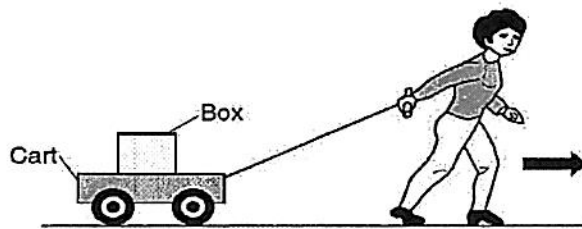
Inertia

- The property of matter by which it retains its state of rest or motion. This is directly related to its mass. Tendency to resist a change in motion.

Which has a greater amount of inertia? An empty shopping cart or a full shopping cart? Why?

Full shopping cart because it has more mass.

Base your answers to questions 83 and 84 on the diagram below and on your knowledge of science. The diagram represents a person pulling a cart with a box on it. The arrow represents the direction in which the person is moving.



83 Identify *one* force acting on the cart. [1]

Gravity | Friction | Air resistance | pulling of cart | weight of box

84 Explain why the box may continue to move forward if the cart suddenly stops moving. [1]

Inertia | Newton's 1st Law | Box has momentum
Not enough force/friction to stop the box