

Name: _____



Newton's First Law of Motion

Newton's First Law deals with objects at _____ and in _____.

All objects resist change unless an outside _____ force acts upon the object.

Inertia is an object's resistance to _____.

Which has more inertia?

- | | |
|-----------------------|--------------------------|
| a) brick wall | b) poster board |
| a) Bowling ball | b) balloon |
| a) train going 60 mph | b) car going 60 mph |
| a) car going 10 mph | b) same car going 50 mph |

Demonstrations:

1) Coin in a Cup

a) Why does the coin fall in the cup once the card is removed?

b) If you pulled the card slowly, would the coin fall in the cup?
(Hint...think friction)

2) Magic Eggs

a) Which egg is hard-boiled and which is raw?

b) In terms of inertia, explain why it is harder to stop the raw egg verses the hard-boiled.

3) Newton's Hat

a) What happens when we spin the hat?

b) Why do the tennis balls move when the student spins in a circle?

4) Truck and its Load

a) In terms of inertia, why does the pin-pong ball go flying?

5) Dominoes

a) Why does just the bottom domino go flying?

6) Egg/Toilet Paper Holder/Broom Demo

a) What was the outside force that acted on the pie plate?

b) Why did the egg fall in the beaker?