

AGENDA 9/29/15

Complete Newton's First Law Notes

Isaac Newton Poster/Research

(due tomorrow Wednesday 9/30)



Due: 5th Period- Progress Report Stubs are due!!!

Warm-up 9/29/15

Describe what is happening to the bicyclist using Newton's First Law of INERTIA.



NEWTON'S FIRST LAW OF INERTIA

An object at rest stays at rest or an object in motion stays in motion (in the same direction/at the same speed) unless acted on by an unbalanced force.

Friction, Gravity, wind resistance

WHAT CAUSES MOTION TO CHANGE?

AN UNBALANCED FORCE

friction, gravity, wind
resistance

WHAT IS INERTIA

The tendency of an object to resist any change in motion

"Stubborn"







US NSF - News - The Science of NFL Football - Newton's First Law of Motion.url

#4 5 Examples of Newton's First Law

1. Bowling pins do not fall until the ball hits it.
2. The soccer ball doesn't stop until the player traps it.
3. The running back keeps moving until he is tackled.
4. The car doesn't move until the driver presses on the gas pedal.
5. The kickball doesn't stop until someone catches it.

#5 Why does Mr. Zimmerman's coffee spill?

The coffee was at rest in his lap. When the car moved, the coffee wanted to stay at rest, therefore, the sudden change in motion makes the coffee spill.

#6 Why should we wear seatbelts in our car?

A seatbelt will slow and eventually stop your body's inertia to prevent you from flinging out of the car.

#7 What force causes objects to slow and stop? What would happen if that force was not applied?

FRICTION, if there was no friction objects would keep moving at the same speed, same direction

#8 What is mass?

The amount of matter in an object.

#9 Does an objects mass affect the amount of inertia the object has? If so explain how?

Yes, the GREATER THE MASS THE
GREATER THE INERTIA

#10 Roy says that if he flings his pudding with a greater force it will have greater inertia. TJ says that inertia doesn't not depend on the force, but rather an objects mass. Who is correct? WHY?

TJ is correct. Inertia is an objects resistance to a change in motion and mass creates greater inertia.

Draw a picture below that represents the 1st law



