

Newton's Laws of Motion

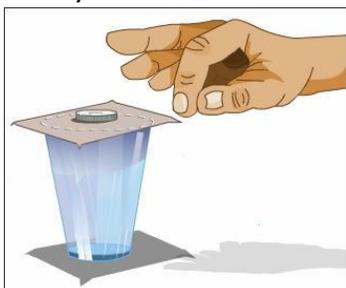
1. Newton's First Law: The Law of Inertia

Definition: _____

From video https://www.youtube.com/watch?v=JGO_zDWmkvk

- Things tend to keep on doing what they are _____
- When your bicycle is stopped, it stays _____. When it is going, it stays _____
- Objects in _____ tend to stay in _____ and objects at _____ tend to stay at _____
- Law of Inertia: Moving objects don't spontaneously _____, _____, or _____

Penny Flick



Questions

1. Which object was the force applied to? _____
2. Which object was the force NOT applied to? _____
3. Why did the penny fall into the cup and not fly off with the index card?

4. What force held the penny in place while the card was flicked out? _____
5. What force brought the penny down into the cup? _____

2. Newton's Second Law

Definition: _____

From video

- _____ = _____ x _____
- To cause an object to accelerate, or speed up, a _____ must be applied
- The more force you apply the, _____ you accelerate
- The more _____ there is, the more _____ you have to use to accelerate

- The harder you push down on the _____, the bigger the _____, and the quicker you _____

Which is harder to move?

- A
- B
- C
- D
- E

3. Newton's Third Law

Definition: _____

Article Summarizing

Action and Reaction	Equal and Opposite	Equal/Opposite but Not Balanced

From video

- For every _____, there is an equal and opposite _____
- As the bouncy ball hits the floor, it causes a downward _____ on the floor; this is the _____. The floor _____ by pushing on the ball with the same force, but in the opposite direction, _____, causing it to bounce back up to you
- Together, the ball and the floor form what is called an _____
- Your bicycle forms an action/reaction pair with the _____

Demonstration Questions:

1. What is the action? _____
2. What is the reaction? _____