Name:_____ Period:_____ #:_____

Newton's First Law of Motion Lab

Part One

Materials

- 1 Plastic cup
- 1 Playing Card
- Pennies

Procedure

1. Place the playing card flat on top of the cup.
2. Place one penny on top of the card so it is in the center.
3. Carefully flick the card straight and hard. If done properly, the card will move, but the objects will fall into the beaker.
4. See how many pennies you can place on the card and still have them fall into the cup.

Data

Give a detailed description of what you did and observed in this section of the lab?

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Explain in terms of Newton's First Law of Motion why the penny fell into the cup when the card was flicked.

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Part Two

Materials

-Drinking straws
-1 Marble
-Notebooks

Procedure

1. Set up the notebooks on the width of the table so that there is a corridor about thirty centimeters wide.
2. Have one person sit on one side of the table while the other sits on the other side facing the first person.
3. Place the marble so that it is at the center of the table.

4. On the count of three, each student tries to blow air through the straw in order to move the marble. The objective is to move the marble all the way across the table to your partner's side. You can only use air to move and stop the marble. Keep track of your score.

Data

Explain in terms of Newton's First Law of Motion why it was hard to get the ball rolling using only air and the straw.

Explain in terms of Newton's First Law of Motion why the ball was hard to stop once it got rolling using only air and the straw.

Questions

1. What is Newton's First Law of Motion?
2. Explain why inertia is related to Newton's First Law of Motion.
3. List five examples you see every day that demonstrates Newton's First Law of Motion.
4. What advantage do space travelers have using Newton's first law of motion? Be specific.
5. The space probe Voyager which was launched into space in the late seventies and left the solar system a couple years ago. Why was it able to keep going for thirty years without the use of fuel?
6. What will that probe continue to do forever until an unbalanced force acts upon it?