

Items Needed:

- Paper card
- Coins
- Glass/cup

The COIN DROP

Directions:

- 1 Cover the cup with the paper card and put the coin on top of the card.
- 2 Flick the card with your forefinger in a horizontal direction.
RESULT: Watch as the coins will fall into the cup.

Questions:

- Why does the coin drop in the cup when the card is flicked away?
- What held the coin back when the card was moved?
- What happens to the coin if the card is pulled slowly?
- Could we pull the card away rather than pushing it away?
- Where do we see this event applied in daily life?

Activity Explained:

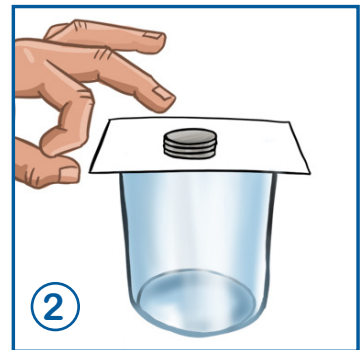
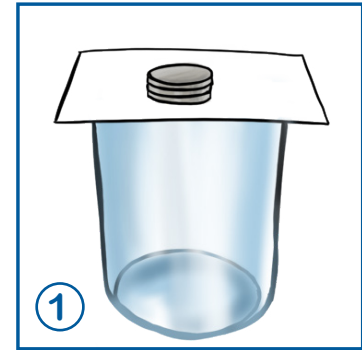
This event is based on a common characteristic that all objects have—inertia. The coin lies inert (still) on the card and by pushing the card suddenly away, the coin slides over the card and drops in the cup. The more sudden the movement of the card, the easier the coin will stay at rest. If the card is pulled slowly away, the coin will move right along with the card. When pulling at the card instead of flicking it, the pulling motion must be as sudden as the pushing (flicking) motion.

How does this apply?

When trying to move a heavy object, it is very difficult to get it to start moving. But once it is moving, it's not as hard to keep it moving.

An object at rest wants to stay at rest. When someone pushes the swing that you are sitting on, you feel the force holding you back as the swing moves forward. That's inertia.

For instance when riding a bus and the bus moves forward with an abrupt motion, those on the bus will jerk backward because they had inertia, also called the tendency to stay at rest. The larger an object's mass, the greater its inertia. The inertia of an object is directly proportional to its mass.



Bible Lesson

Sometimes it's easy to get comfortable in our lives, and we stop going forward and growing spiritually.

2 Peter 3:18 - Grow in the grace and knowledge of our Lord and Savior Jesus Christ.