



MISSION TO KENNEDY SPACE CENTER
Field Investigation #1 – Falling Coin

Crew Members Present for Investigation:

Date of Investigation: _____

Problem: How will Newton’s Laws about gravity and inertia affect the movement of a coin on an index card?

Scientific Background: Newton’s First Law of Motion states that an object at rest tends to remain at rest while an object in motion tends to remain in motion in a straight line at constant speed until acted on by an outside force. This tendency to remain at rest is called inertia. Objects in motion on Earth have two outside forces that act upon them, friction and gravity. These forces act to slow down an object when the impulse that initially accelerated the object is no longer acting on it.

Materials: plastic cup, index card, quarter

Procedure:

1. Place the index card on top of the cup.
2. Practice quickly flicking the index card off the cup with your finger.
3. Put the quarter in the center of the index card.
4. Quickly and firmly, flick the edge of the index card.
5. Observe what happens to the quarter and record in your Mission Journal below.
6. Repeat steps 3-5, except flick the card slowly.
7. Using Newton’s Laws, record your conclusion in the Mission Journal.

Journal: _____
