



Challenger's Morning Science Segment:

April 2, 2018

Topic: Inertia

Build: Egg drop

Credit:

<https://www.msichicago.org/experiment/hands-on-science/egg-drop/>

Materials Needed:

Plastic Easter egg / paper-towel tube / plastic cup / piece of cardboard / water

How to do the egg loop drop: First fill a plastic cup half-way with water. Get a piece of cardboard that will cover the top of the plastic cup, and then place it on top of the water filled cup. Next cut a paper-towel tube in half. Place one half of the tube on top of the cardboard. Center the tube over the middle of the cup opening. Finally, using the paper towel tube as a stand, place the plastic Easter egg on top. The order from bottom to top should be: water-filled plastic cup, piece of cardboard, halved paper-towel tube, and finally Easter egg on top. Now it's time for the physics trick! Grasp the cardboard firmly and very quickly pull it directly & swiftly to the side. The egg will fall directly into the cup!

The science [credit: <https://www.msichicago.org/experiment/hands-on-science/egg-drop/>]:

This trick isn't a trick at all! It is a demonstration of Sir Isaac Newton's First Law of Motion. The egg then demonstrates inertia. "Gravity is the force that pulls the egg down once there is no longer another outside force [the piece of cardboard] to hold them up". The egg stays at rest until acted on by another force---GRAVITY!!!

What's happening at the Challenger Learning Center of Maine: Challenger holds various week-long STEM focused Summer Camps for grades K-8. FMI- www.astronaut.org