



Challenger's Morning Science Segment:

October 10, 2016

Topic: Newton's First Law- Inertia

Build: Inertia Hat

Materials Needed:

Wire Cutters / wire coat hanger / tennis balls

Build your own Mad Scientist Hat: Take a wire coat hanger and remove the hook with the wire cutters. Bend the hanger into the shape of the letter "M." Make sure the center point of the M is "pointy" and defined. Then slightly bend up the bottom ends of the "M" so that it can hold a zip tie without slipping off. Next zip tie a tennis ball to each bottom ends of the wire coat hanger "M." Both tennis balls need to be the same size and be below the center point of the "M."

Balance the point of the "M" on the very center/top of your head. You can either spin yourself and the tennis balls will stay still, or you can spin the balls around your head. Let the inertia magic begin!

The science:

This activity is Newton's First Law in action. When you spin and the tennis balls stay put- it is because of inertia. An object at rest will stay at rest. You can spin and spin and spin yourself, but those tennis balls will stay in the same place at rest. You can also spin the tennis balls, but eventually the friction between your head and the hanger will stop the balls. A fun idea for a hat filled with physics fun!

This activity ties into the Challenger Learning Center of Maine, where students experience a newfound excitement for science, technology, engineering and math.

What's up next? Challenger is selling premium Innovator Russet Potatoes straight from Aroostook County, with proceeds supporting Challenger's mission to inspire Maine students in science and math. 2016 has yielded another fine growing season – these are beautiful potatoes. Satisfaction is guaranteed! At just \$25 for a 50lb. bag (50 cents/pound), this is a deal you won't want to miss! Buy a bag for you, and buy a second one to donate to a local food pantries, such as Good Shepherd Food Bank, who will be onsite to accept your potato bag donations on November 5th. FMI- www.astronaut.org