

# Inertia Spinners

## Supplies

Tag Board Paper or  
Light Cardboard

Markers

Scissors

Penny

Glue Gun & Glue Sticks

Drinking Glass or Wide-Mouthed Jar

## Instructions:

- 1 On your paper, place the jar or glass top down on the paper and trace out a circle with a marker.
- 2 Proceed to draw any design in various colors on the circle.
- 3 Once completed, cut out the circle and gently fold the paper circle in half lightly, just enough to see the center point and begin to cut a small slit enough to support the diameter of the penny.
- 4 Flatten out the paper circle and push the penny halfway through the slit. Apply a small amount of hot glue to support the penny. The penny should be dead center, halfway through the slit.

If you don't have, or prefer not to use, a glue gun - feel free to use scotch tape or Ehlmer's glue for your spinner.

- 5 The glue should take only a few minutes to dry. Once it has, give your spinner a test run. Grab the penny by its edges and spin it the same way you would a normal coin using the same motion you would to snap your fingers.

## What Happened:

In short, Newton's first law of motion says that an object at rest stays at rest and an object in motion stays in motion unless an outside force acts upon it. The first part is obvious: if we don't move our penny spinners they'll stay right where they are. The second part is a little trickier: when we spin our penny spinner it doesn't keep going forever. So, what happened? Was Newton wrong about that part? It may not be immediately obvious, but the spinner is losing energy through sound by interacting with the air and heat through friction with the surface it's spinning on.

*\*Parental supervision required. Recommended for ages 6+*