

## Anti-Gravity Marble

### Challenge:

How can I make the marble stay in the can while having it turned upside down and off the surface of the table?

### Here are the materials you will need:

- ✓ Small coffee can
- ✓ One marble

### Rules:

- The marble cannot be touched.
- The marble must stay in the can for at least two seconds.

### Instructions:

1. Place the can upside down on the surface of a table.
2. Place the marble under the can.
3. Move the can in a rapid circular motion, making certain the marble rotates around the inside of the can. While doing this procedure, lift the can straight off the table.

### Solution:

- Due to Centrifugal and Centripetal force, the marble remains in the can.
- Centrifugal force is the force that tends to impel a thing or parts of a thing outward from a center of rotation.
- Centripetal force is the force that is necessary to keep an object moving in a circular path and that is directed inward toward the center of rotation.