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Balanced & Unbalanced Forces Activity for Kids

Balanced & Unbalanced Forces DIY

 Duration: **15-30 min**  Difficulty: **Easy**  Cost: **\$0 to \$5**

Use balanced & unbalanced forces to drop an egg into a cup without touching it!

Material List

- 1** Metal or plastic pie tin
- 1** Plastic cup of water
- 2** Eggs
- 1** Toilet paper tube
- 1** Roll of paper towels for cleanup

Instructions

- 1** Fill the plastic cup halfway with water.
 - 2** Place the plate on top of the cup (center it).
 - 3** Stack the toilet paper tube on top and center it as well.
 - 4** Finally, balance the egg on top of the toilet paper tube.
 - 5** Use the palm of your hand to knock the plate away.
- Tip:** Don't hit the tube or the cup.

How It Works

As the egg sits on top of the stack, the forces acting upon the egg are balanced. Gravity pulls the egg down while the tube pushes it up, so the egg is not in motion. When we remove the plate and the tube, the force that was holding the egg up is suddenly removed and the only force on the egg is gravity—causing it to move down.