

# Lesson Plan: The Secret Behind the Center of Gravity

Brighter Idea - Try This at Home

**Baffle and amaze your friends with these fun center of gravity challenges.**

**In this activity you will need:**

## Supplies

- \* A friend
- \* A stool
- \* A quarter

## Instructions

- 1** For the first challenge, explain to your friend that you can keep them in place with just your thumb. Put the stool up against the wall and have your friend sit with their back against the wall and their feet flat on the floor in front of them. Make sure their feet are pointing straight ahead.
- 2** Gently place your thumb in the middle of your friend's forehead and ask them to stand up. Your friend won't be able to stand up!
- 3** For the second challenge, offer your friend a quarter, with a catch. Tell them to stand against the wall, with their back straight against the wall.
- 4** Put the quarter between your friend's toes and tell them to pick it up. When they bend over to pick it up, they will fall forward!

## What's this all about?

The "center of gravity" or "center of mass" is the spot on an object where most of its mass is located. When people move, they need to adjust their center of gravity to balance their bodies. If people can't adjust their center of gravity to compensate for movement, they either can't move or fall over.