

Dancing Quarter

Make a quarter dance by using pressure differences.

Difficulty / Time Commitment:

5 out of 10

Coolness Factor:

8 out of 10

Materials:

- small glass bottle with an opening smaller than a quarter
- quarter
- ice bath

Instructions:

1. Place the small glass bottle into a cold ice bath for a few minutes.
2. Place a quarter on the small opening to the bottle.
3. Put your warm hands around the glass bottle, and the quarter will dance.

What Happened?

When we put our warm hands around the bottle, we suddenly increased the temperature of the bottle, creating high pressure in the bottle and low pressure outside of the bottle. The high pressure inside pushes the quarter upward with just enough force to make the quarter dance in place.

Basic Concepts Learned:

- Air moves from high to low pressure.