Curiosity Guide #205 Flowing Air



Accompanies Curious Crew, Season 2, Episode 5 (#205)

Straw Sprayer Investigation #7

Description Make a cool tool out of two straws and a little air pressure.

Materials

- Clear container of water
- Food coloring
- White paper
- 2 straws

Procedure

- 1) Fill the clear container full of water.
- 2) Add several drops of food coloring to make the water easier to see.
- 3) Place one straw vertically in the water so that it is well submerged but not on the bottom.
- 4) Hold the second straw horizontally so that one of the open ends is at a right angle and above the vertical straw.
- 5) Hold up a white paper in front of the straws. Blow through the horizontal straw toward the paper.
- 6) What do you notice?
- 7) Did colored water spray out?

My Results

Explanation

When you increased the airflow over the vertical straw, the moving air lowered the pressure there compared to the air pressure that was pushing down on the water in the container. That imbalance drove the liquid up into the straw. When the liquid left the straw, it followed the airflow onto the white paper. This is the same principle for how spray paint guns work.

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