



Curiosity Guide #209

Friction

Accompanies Curious Crew, Season 2, Episode 9 (#209)

Air Resistance

Investigation #4

Description

It's a paper race!

Materials

- Two pieces of 8 $\frac{1}{2}$ by 11-inch paper

Procedure

- 1) Crumple one of the pieces of paper. Leave one paper smooth.
- 2) Predict which paper will fall faster when dropped from the same height.
- 3) Try it.
- 4) What happens?

My Results

Explanation

Even though the 2 pieces of paper have the same mass, they fall at different speeds because of the air resistance or **fluid friction**. The shape of the open paper catches more air than the crumpled one.

Something more to think about: Skydivers really depend on friction to make their parachutes work so they can land safely on the ground. You see, the shape of the parachute catches more air and slows down the skydiver. This is called **fluid friction** because the parachute rubs against the fluid air molecules. You see, friction can be helpful, too! Happy landings!

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