OBSERVING THE BERNOULLI EFFECT
with Paper Strips

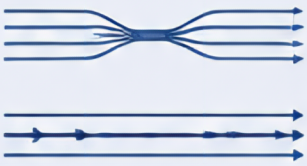
Name: _____

Date: _____

Course/Topic: _____

WHAT IS THE BERNOULLI EFFECT?

The Bernoulli effect occurs when moving air causes a decrease in pressure. When air moves faster, the pressure in that area becomes lower. This difference in pressure can cause objects to move toward the area of faster-moving air.



MATERIALS

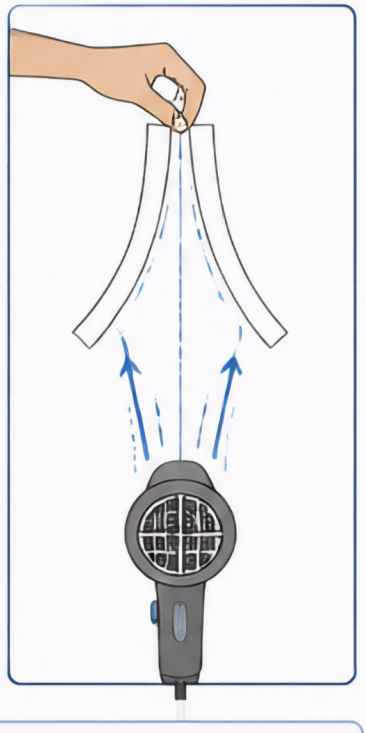
- 2 paper strips (about 1–2 cm wide and 20–30 cm long)
- Tape (optional)
- Hair dryer (cool or low heat setting) or fan
- Scissors
- Ruler (optional)

SAFETY FIRST

- Keep hair and loose clothing away from the fan or hair dryer.
- Use the low or cool setting on the hair dryer.
- Do not look into the fan or dryer.
- Ask an adult if you need help.

PROCEDURE

1. Cut two paper strips of equal size.
2. Hold the paper strips vertically, side by side, at the top. Let the strips hang down.
3. Turn on the fan or hair dryer. Hold it so the air blows between the two strips from below, moving upward.
4. Observe what happens to the paper strips.
5. Try widening the space between the strips. What happens?
6. Try narrowing the space between the strips. What happens?
7. Turn off the air. Do the strips return to their original position?



WHAT DO YOU THINK?

Look at the materials and the procedure. What do you think will happen to the paper strips when the air is turned on?

_____

_____

EXPLAIN IT

Explain why the paper strips moved the way they did. Use the idea of air speed and pressure in your answer.

_____

_____

_____

OBSERVATIONS

Describe what happened to the paper strips.

_____

_____

_____

What happened when you changed the distance between the strips?

_____

_____

_____

What happened when you turned off the air?

_____

REAL-WORLD CONNECTIONS

Where might the Bernoulli effect be useful in real life? List or describe at least two examples.

1. _____ 2. _____

DID YOU KNOW? The Bernoulli effect helps airplanes fly, makes sailboats move with the wind, and even helps spin curveballs in baseball!