



Weather Rocks! Post-Visit Material

Thank you for your visit to the Putnam Museum. We strive to provide high-quality programs and hope that you and your students enjoyed your time with us. We appreciate your time and all you do for your students. Thank you for letting us be a part of their learning!

Further activity for your classroom:

Bernoulli's Law

The air pressure of a tornado is so low that houses in its path may be destroyed. What causes this low pressure?

Materials:

- 2 apples or balls
- 2 strings about 12 inches long
- 2 tacks

Directions:

1. Hang two apples or balls 3 inches apart with string and a tack.
2. Blow between the apples or balls.
3. Observe what happens (instead of being pushed apart, the apples move toward one another)

Why? By blowing between the apples, you cause the air between the apples to move. This reduces the air pressure between them. Then the air on the sides of the apples are pushed toward the area of lower pressure. As the speed of air increases, the pressure of the air decreases. The faster air moves, the less pressure it has. This was discovered by the Swiss physicist, Daniel Bernoulli. This decrease of pressure caused by high-speed air movement is one of the reasons a tornado is so destructive. Objects are propelled into whirling air by the stronger pressure of air around them.

(Source: Churchill, Loeschig, & Mandell (1997). *730 Easy Science Experiments with everyday materials*. Sterling Publishing Company. New York, NY.)

