A STEM in the Park
Take Home Activity

STEM in the PARK™

Science, Technology, Engineering, and Mathematics

Static Electricity Balloon Experiments

What You Need

- 2 balloons
- Light string, thread, or curling ribbon
- Wool fabric (socks, mittens, or sweater)
- Gift tissue paper
- Aluminum can (empty, on its side)

What To Do

1. Blow up the balloons and tie a light string to each
2. Hold a balloon by the string (it should be hanging down) and bring the balloon close to each of the materials (the second balloon, the tissue paper, and the aluminum can). Observe what happens next to the second balloon, next to the tissue paper, next to the aluminum can.
3. Rub both balloons onto your hair or onto the wool fabric.

Continued on back

What To Do cont.

4. Hold a balloon by the string and bring the balloon close to each of the materials. Observe what happens. You may have to rub the balloon on your hair or wool again after a few minutes.
5. Bring the balloon close to a stream of running water from your kitchen sink. Make observations.
6. What can you conclude after looking at your data?

The Science

Rubbing the balloon onto your hair or onto the wool fabric adds electrons to the balloon and causes the balloon to become negatively charged. Like charges repel (the two balloons, once charged, will move away from each other) and opposite charges attract (the paper will be attracted to the charged balloons.) Your positively charged hair is attracted to the negatively charged balloon and starts to rise up to meet it. Similarly, the aluminum can is attracted to the negatively charged balloon.

Caution: *Be careful if you or a family member has a latex allergy. Most balloons are made out of latex.*

This activity is brought to you by Lourdes University

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