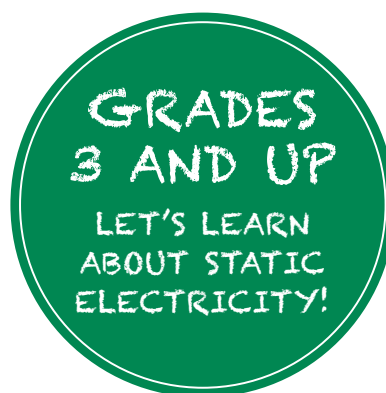


A HAIR-RAISING EXPERIMENT

What you need:

- A cool, dry day
- Two round balloons, inflated and tied
- Two 20-inch pieces of string
- Wool or acrylic sock
- Mirror



What to do:

Have your child tie a string to each inflated balloon. Then tell them to rub a balloon on their hair for about 15 seconds – help them to rub around the whole balloon. Have everyone take the balloon away and see what happens to their hair. Then have them observe what happens when they bring the balloon back close to their hair.

Next, stand a few feet away from and facing your child. Have them rub the balloon on their hair again as you do the same with the other balloon. Tell them to hold the string to the balloon, letting it hang freely but without letting it touch anything. (You do the same with your balloon.) Slowly move the two balloons toward each other, but don't let them touch. Have your child tell you what's happening: Do the balloons push away from each other, or do they pull toward each other? Have them place their hand between the two hanging balloons. What happens?

Give your child a sock to place over one hand. Tell them to rub the balloon with the sock, then let the balloon hang freely. Have them move the sock-covered hand near the balloon. What happens? Have them try rubbing both balloons with the sock and then letting them hang near each other. What happens now?

About protons and electrons:

All materials contain millions of tiny particles, called protons and electrons. They have electric charges. Protons have positive charges and electrons have negative ones. Usually, they balance each other, but sometimes when two surfaces rub together, some of the electrons rub off one surface onto the other, and we can have static electricity. Materials with like charges (all positive or all negative) move away from each other; those with opposite charges attract each other.