



Demonstrating Static Electricity

In this activity, you will demonstrate the principals of static electricity and the laws of electric charge. Static electricity is any charge that remains on the surface of an object. These charges are caused by the rubbing together of two objects.

To understand many of your observations, you must use the laws of electric charge. This law states that

- 1) Objects with like charges repel.
- 2) Objects with unlike charges attract.
- 3) Charged objects attract neutral objects.

Materials

Fur or wool

Balloons

Dryer sheets

Piece of string

Stuck up Balloon Activity

- 1) Blow up a balloon and tie the end so that the balloon stays inflated. Without doing anything else, hold the balloon against the wall and see if it sticks.

What happens: _____

Use the law of electric charge to explain: _____

- 2) Next, briskly rub the balloon across a piece of wool. Hold the balloon against the wall and see if it sticks.

What happens: _____

Use the law of electric charge to explain: _____

Dancing Balloon Activity

- 1) Use two inflated balloons in this activity. Blow up a balloon and tie the end so that the balloon stays inflated.
- 2) Tie a long thread to the end of each balloon.
- 3) Give each balloon a static charge by rubbing it with fur.
- 4) Hold each balloon by the end of the thread and try to bring the balloons close to each other.

What happens: _____

Use the law of electric charge to explain: _____

Static Be Gone!

- 1) Blow up a balloon and tie the end so that the balloon stays inflated. Using a piece of fur, charge the balloon. Now hold that balloon next to a dryer sheet.

What happens: _____

Use the law of electric charge to explain: _____

- 2) Rub the balloon with the fur again to ensure it is still charged. Now hold the balloon against the wall.

What happens: _____

Use the law of electric charge to explain: _____

- 3) Rub the same charged balloon with the dryer sheet. Now hold the balloon against the wall.

What happens: _____

Use the law of electric charge to explain: _____

Attempt to explain how a dryer sheet may remove static electricity from your clothes:
