What is static electricity?

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>
> **Electron:** an electron is a tiny particle. Rubbing can move electrons from one material to another.
>
> **Static electricity** is charge that builds up and stays put on a thing, instead of flowing away.
>
> **Attract** means to pull together. **Repel** means to push apart.
>
> **Electric discharge:** a sudden movement of charge. A spark is a small electric discharge. Lightning is a very big electric discharge.
>
> **Conductor:** a conductor is a material that lets charge move through it easily. Metal is a good conductor.

How does rubbing make a charge?

Rub a balloon on hair or on a wool sweater. Rubbing can move tiny particles called **electrons** from one material to another. Now the balloon holds extra charge. The charge stays put on the balloon. That is static electricity.

Push apart, pull together

Charges that are the same **repel**. They push apart. Charges that are different **attract**. They pull together. A charged balloon can also pull on light things nearby, even things with no extra charge overall.

Why do sparks jump?

Sometimes charge builds up and builds up. Then it moves all at once. That sudden movement of charge is an **electric discharge**. A small discharge is a spark. You may see a tiny flash. You may hear a tiny snap.

Why winter?

Static is strongest on dry days. Dry winter air is why this unit works best in winter. The charge slowly leaks away over time. It leaks away faster in wet air. On a rainy summer day, the tricks may barely work at all.

Coloring page: Static Carl

Print this page and color Static Carl with his balloon and raised crest.

Color guide: Feathers and crest bright red. Balloon bright red. Mask dark. Eyes amber-brown. Beak orange. Chest cream. Neckerchief green. Compass medallion gold. Spark stars gold. Or pick your own colors. There is no wrong way to color Carl.



Static Carl: balloon in hand, crest standing straight up, neckerchief and medallion on. Keep him with your science notebook.