

What is Static Electricity?



You walk across a rug and reach for a doorknob. ZAP!! You get a shock. Did you ever ask why? What is static electricity?

Everything we see is made up of tiny little parts called atoms. The atoms are made of even smaller parts. These are called protons, electrons and neutrons. They are very different from each other in many ways.

One way they are different is their "charge." Protons have a positive (+) charge. Electrons have a negative (-) charge. Neutrons have no charge.

Usually, atoms have the same number of electrons and protons. Then the atom has no charge, it is "neutral."

But if you rub things together, electrons can move from one atom to another. Some atoms get extra electrons. They have a negative charge. Other atoms lose electrons. They have a positive charge. When charges are separated like this, it is called static electricity.



If two things have the same charge, they repel, or push away from each other.

If two things have different charges, they attract, or pull towards each other.

So, why does your hair stand up after you take your hat off?

When you pull your hat off, it rubs against your hair. Electrons move from your hair to the hat.



Now each of the hairs has the same positive charge. Things with the same charge repel each other. So the hairs try to move away from each other. The farthest they can get is to stand up and away from all the other hairs.

If you walk across a carpet, electrons move from the rug to you. Now you have extra electrons. Touch a door knob and ZAP! The electrons move from you to the knob. You get a shock.