

Lesson 9.1 Static electricity

1. When an excess of electric charge builds up on the outside of an object, it is said to have a **static charge**. Static means “at rest”.
2. **Insulators** can have static charges, but it’s hard to put a static charge on a **conductor**.
3. There are **two** kinds of static charge: **positive** and **negative**.
4. A negative charge is the result of a **gain** of electrons.
5. A positive charge is the result of a **loss** of electrons.
6. A **neutral** object has a **balance** of negative and positive charges.
7. Opposite charges **attract** each other; like charges **repel**.
8. An **electroscope** is any device used to detect static electricity.
9. If you charge up an electroscope it can be used to identify the **kind** of charge on an object.

10. **Electronegativity** is the ability of a substance to attract electrons.
11. Two neutral objects made of different materials become charged when they **contact** (touch each other). **Rubbing** the objects together increases the amount of charge produced.
12. When two objects touch, the object that is more **electronegative** will take electrons from the object that is less electronegative and gains a negative charge. The object that gives the electrons away acquires a positive charge.
13. An object is charged by **induction** when something already charged is brought nearby, but not touching. This happens because the charges on the object separate so that one part of the object is negative and one part is positive (although it remains neutral overall).
14. When a charged object touches an uncharged object, some charges will be **transferred** as some electrons jump from one object to the other. This process is called **conduction**.

<https://youtu.be/ViZNgU-Yt-Y> (video of static electricity tricks)