

Static Electricity

Def: Is the temporary movement of electrons from one substance to another.



- Generally substances are found in a neutral state (same # of + and -). When electrons move from one substance to another the materials become charged.

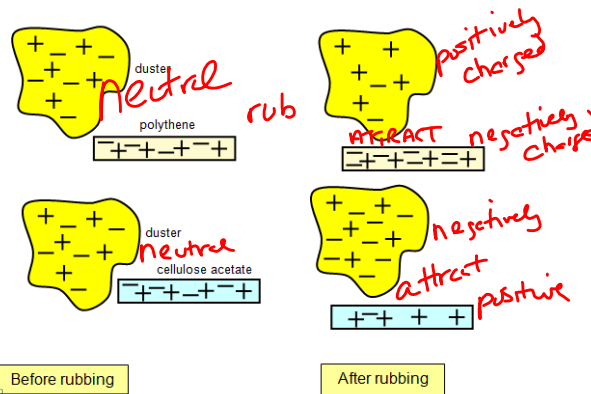
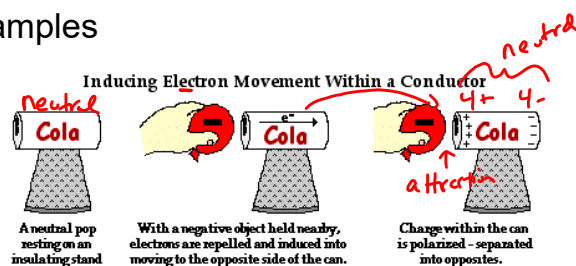
Bill Nye The Science Guy on Static Electricity (Full Clip).mp4

Static Electricity and Water.mp4

Rules

1. There is a **+** and a **-** charge.
2. Only **electrons** can move.
3. If a substance has more **protons** it is **positively** charged, if it has more **electrons** it is **negatively** charged.
4. To become neutral again a substance will lose or gain **electrons**.
5. Alike charges **repel**, opposites **attract**.
6. **Friction** (rubbing causes the electrons to be passed on).
7. *Touching passes on the charge.
8. A **charged** substance can attract a **neutral** substance because the protons will align with the electrons.

Examples

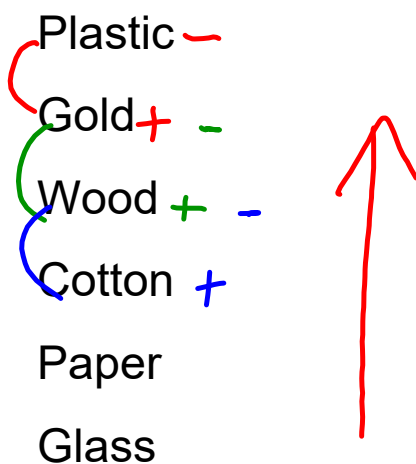


Electrostatic Series

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- Gives a hierarchy of substances and their ability to lose and gain electrons.
- An object above another object will gain electrons from the ones below it.

Example



Rub: plastic and wood
gold and paper

- 1- What happens if plastic and paper come close? *ATTRACT*
- 2- Gold and plastic? *Repel*
- 3- Wood and paper?

***Must memorize: plastic** will always gain electrons and be **negatively** charged. **Glass** will always **lose** electrons and become **positively** charged.

Attachments



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Static Electricity and Water.mp4