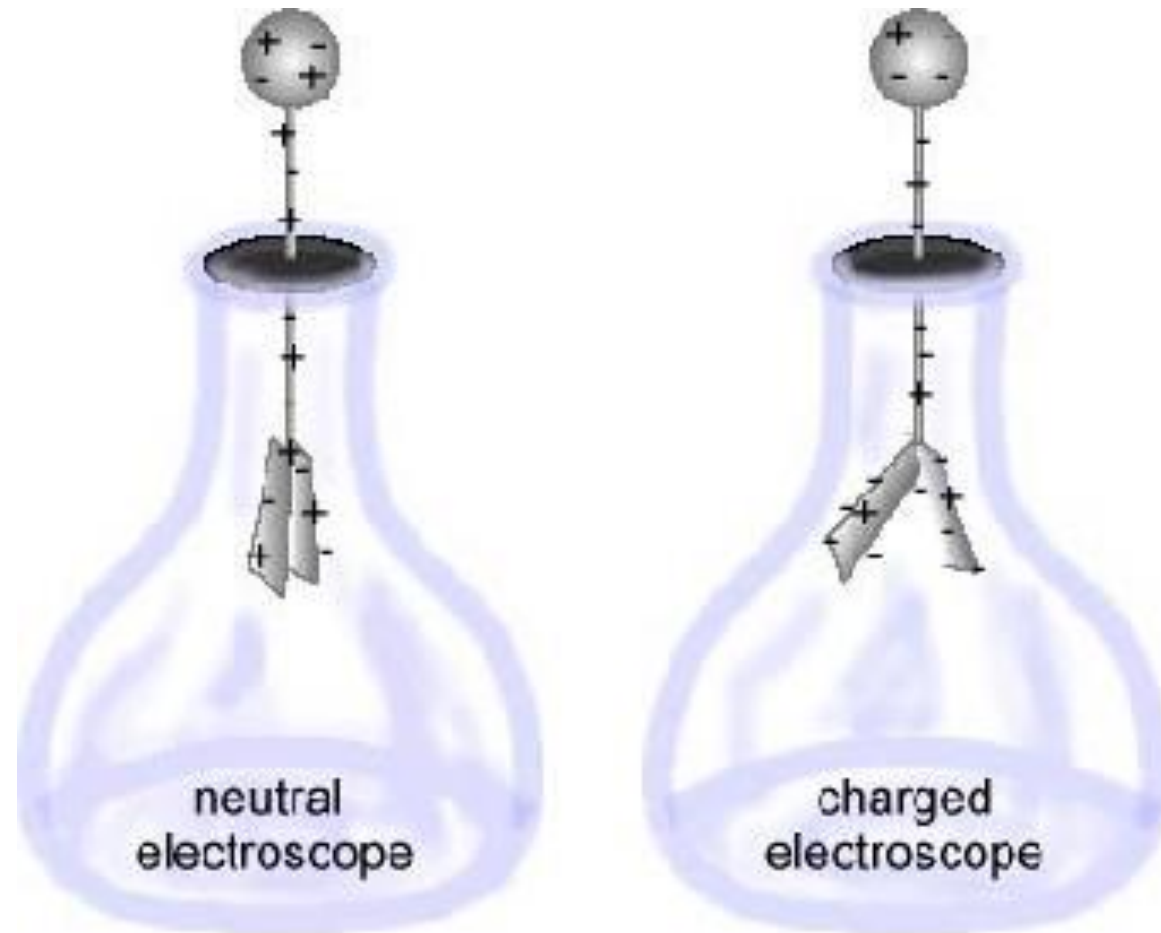


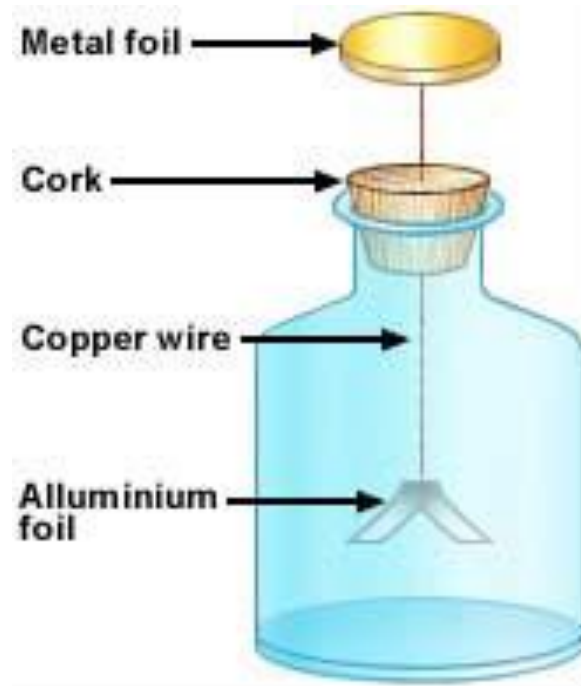
# Electroscopes



S1-03-05 Explain electrostatic phenomena using the particle model of electricity.

# Electroscopes...

An ELECTROSCOPE is a device that can be used to DETECT CHARGES.



When you bring a CHARGED rod NEAR a NEUTRAL electroscopes, the LEAVES of the electroscopes will REPEL each other.

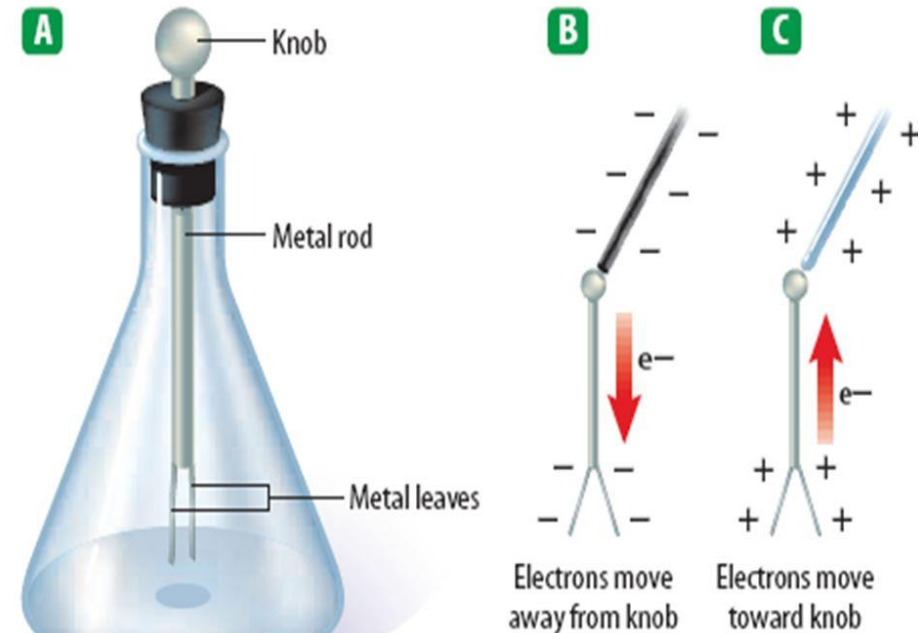
If a NEUTRAL rod is brought near a NEUTRAL electroscopes, NOTHING will happen

# Electroscopes...

You can detect charges by **TOUCHING** the electroscope with a charged rod (**CONTACT**), or by bringing a charged rod **NEAR** an electroscope (**INDUCTION**).

The charge on the rod will either **ATTRACT** or **REPEL** the **ELECTRONS** in the electroscope, giving **BOTH LEAVES** the **SAME CHARGE**. This causes them to **REPEL**.

\*\*\*The electroscope will **NOT** tell you what **KIND** of charge is present

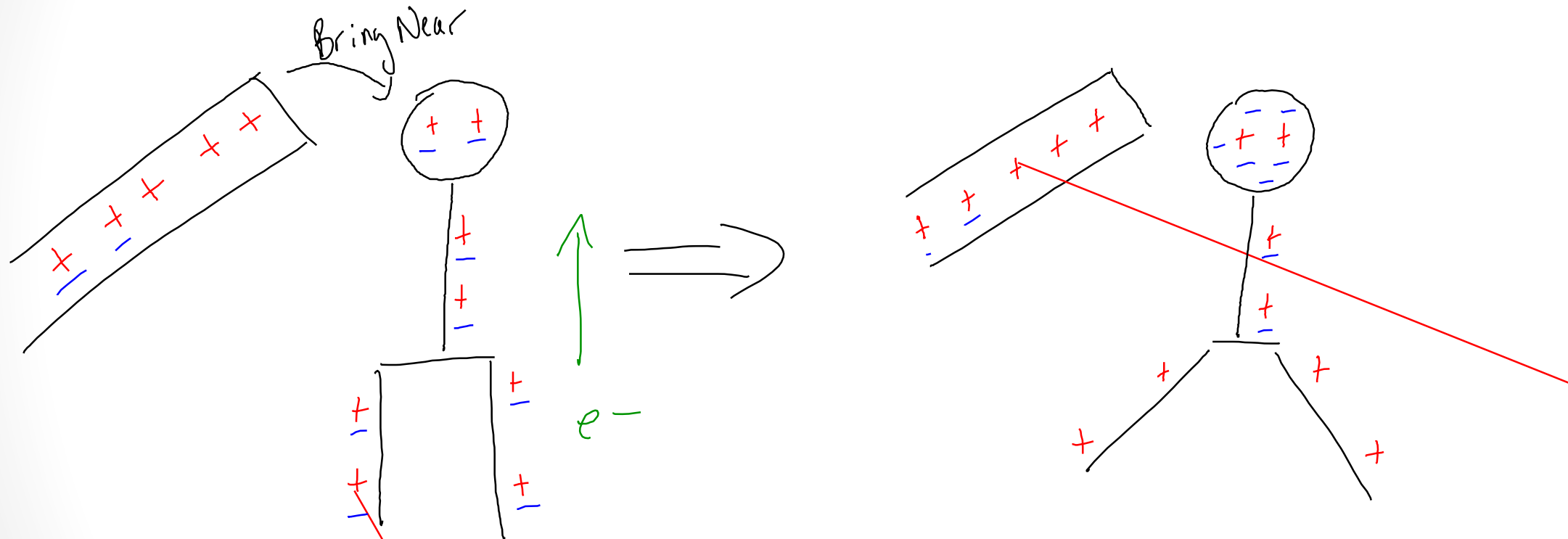


# Electroscope Examples...

1. Charging the electroscope by INDUCTION.

→ Temporary

→ *charge a rod and bring it near the electroscope*



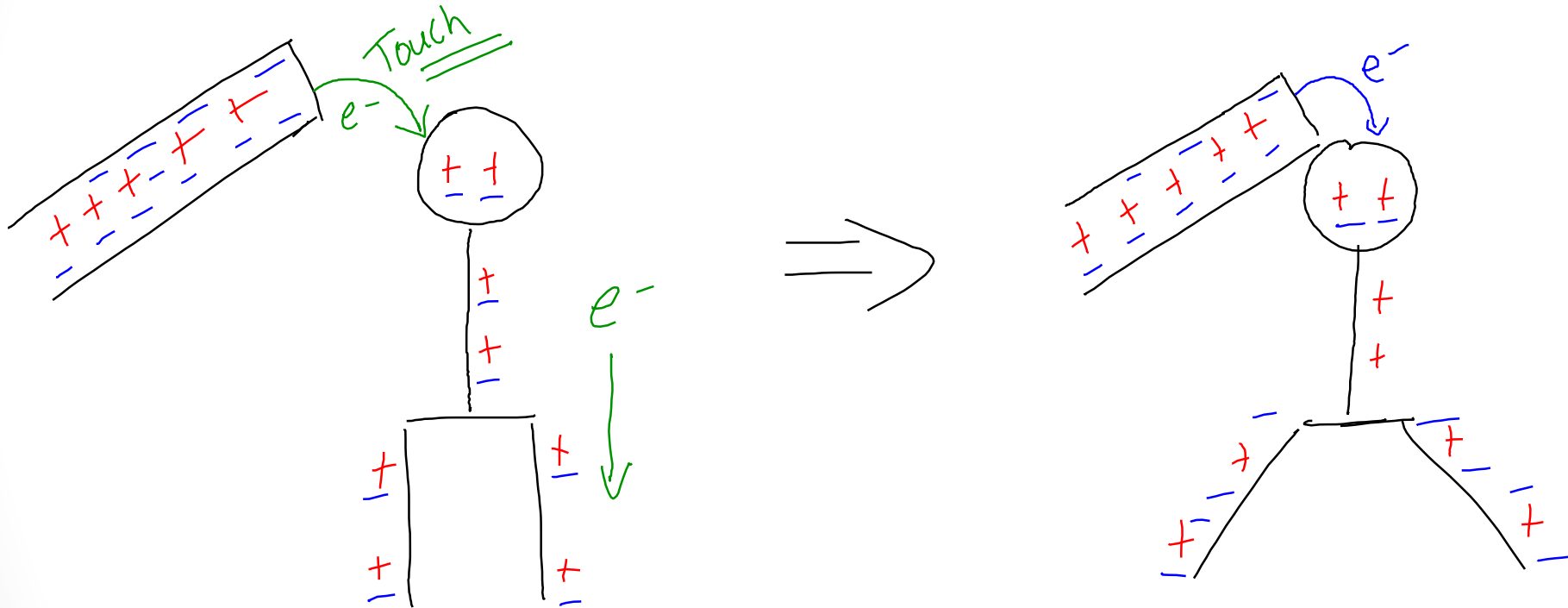
**What happens when the rod is moved away from the electroscope?**

*return to normal*

# Electroscope Examples...

2. Charging by **CONDUCTION** *(permanent)*

→ Charge a rod and touch it to the electroscope



Remember that conduction is a **PERMANENT** charge. If you want to make the electroscope neutral again, you can do so by **GROUNDING** it with your **FINGER**.

# Electroscope Examples...

## 2. Charging by CONDUCTION

→ *Charge a rod and touch it to the electroscope*

Remember that conduction is a PERMANENT charge. If you want to make the electroscope neutral again, you can do so by GROUNDING it with your FINGER.