

# Static Electricity

**Electrostatics** is the study of static electric charge – an electric charge that \_\_\_\_\_ in one spot.

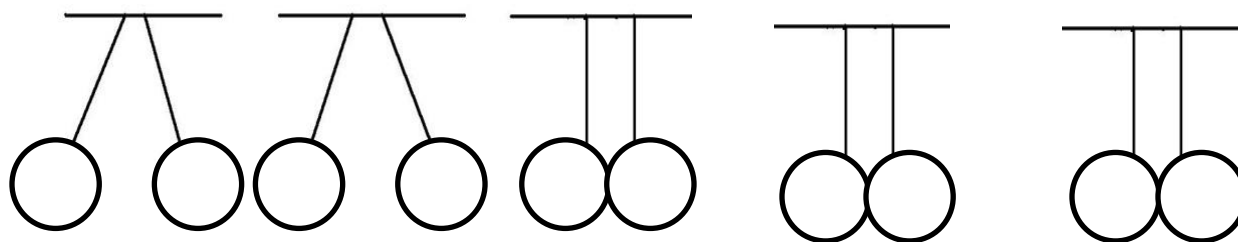
## Electric Charge:

An object on its own is electrically \_\_\_\_\_. It has an \_\_\_\_\_ number of positive and negative charges.



## Law of Electric Charges:

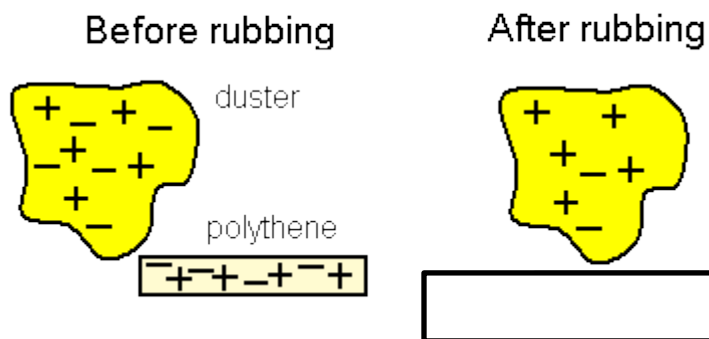
- Like charges \_\_\_\_\_ each other
- Unlike charges \_\_\_\_\_ one another
- Charged objects \_\_\_\_\_ neutral objects



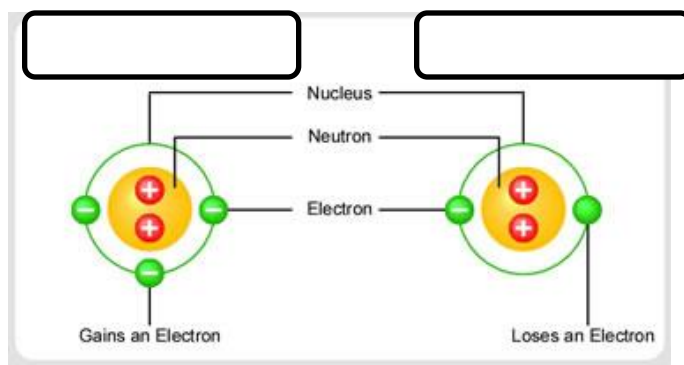
## Three Ways to Make Static Electricity:

### 1 – Friction:

- ▶ 2 different **neutral** objects are rubbed together
- ▶ One becomes \_\_\_\_\_ charged, and the other \_\_\_\_\_ charged.
- ▶ The duster becomes \_\_\_\_\_. The polythene becomes \_\_\_\_\_.

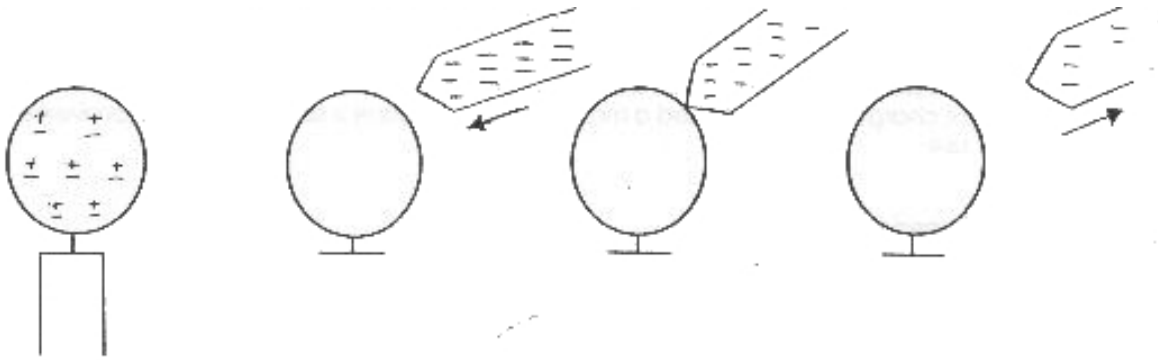
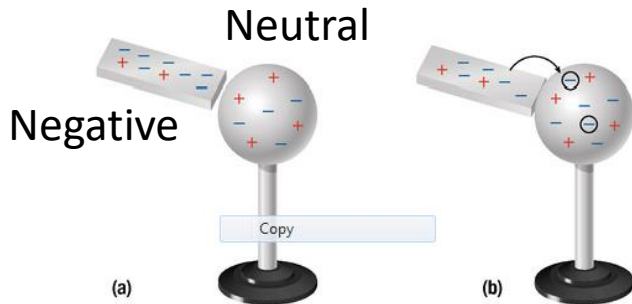


In some elements, the \_\_\_\_\_ has a weaker hold on its \_\_\_\_\_, and their electrons can move easily. If an object \_\_\_\_\_ electrons it becomes \_\_\_\_\_ charged. If an object \_\_\_\_\_ electrons it becomes \_\_\_\_\_



## 2 – Charging by Contact:

- ▶ Two objects with \_\_\_\_\_ amounts of charge come in contact
- ▶ \_\_\_\_\_ move from one object to another.



## 3 - Grounding

- ▶ \_\_\_\_\_ object near a neutral object, charges \_\_\_\_\_
- ▶ Neutral object acts \_\_\_\_\_ because of separation
- ▶ If grounded, the object stays \_\_\_\_\_

