

Charging Objects

Name: Master
Date: _____

3 ways in which objects can become electrically charged:

- 1) Friction 2) Contact 3) Induction

Review

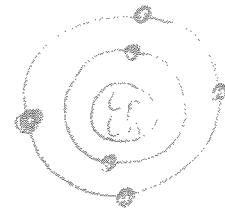
1. What does the term **static** mean? to not move, to be stationary
(electricity that does not move.)
2. a) How does a **neutral** object affect another **neutral** object? no attraction
b) How does a **charged** object affect a **neutral** object? attracted
3. **Problem:** Pieces of straw are attracted to both a negative and a positive charge. What charge is on the straw? Why?
neutral → only neutral objects are attracted to both positive and negative objects
4. a) Draw the Bohr-Rutherford diagram of ${}^{12}_6\text{C}$ in your notes.

Particle

Location

Diagram

# of protons	= <u>6</u>	<u>nucleus</u>
# of electrons	= <u>6</u>	<u>orbit the nucleus</u>
# of neutrons	= <u>6</u>	<u>nucleus</u>



- b) What particles stay relatively fixed in the atom? protons + neutrons
- c) Which particles move easily? electrons
- d) Which particles are responsible for electric charges? electrons
5. Describe how many more (or less) electrons the following objects would have compared to protons?
- a) a **neutral** object same protons as electrons
- b) a **positive** object more protons than electrons
- c) a **negative** object more electron than protons
6. a) An object that has a **lack** of electrons has a positive charge.
- b) An object that has a **surplus** of electrons has a negative charge.