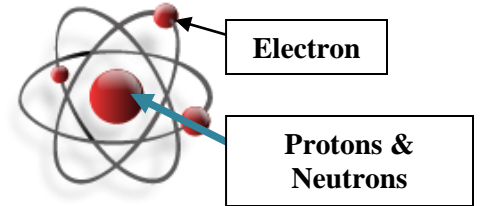


# EQ: What is Static Electricity?

Everything around us is matter. Matter is made up of tiny particles called atoms. Atoms are made of smaller parts (protons, neutrons and electrons).



**Matter**- anything that has mass and takes up space.

**Atom**- Tiny particles that make up matter.

**Proton**- particles in the nucleus of an atom that have a positive charge.

**Neutron**- particles in the nucleus of an atom that have no charge (neutral).

**Electron**- tiny particles that move around the nucleus of an atom. An electron has a negative charge.

- Protons and neutrons make up the center of most atoms. Electrons move around the nucleus of an atom.

When protons (+ charge) = the number of electrons (- charge) in an atom, the atom has no charge (neutral). Electrons can move from one atom to another.

**Friction**, which means rubbing together, is one way electrons “jump” from one object to another.

- If an atom has more electrons than protons, it is negatively charged (-). If an object has fewer electrons than protons, it is positively charged (+). If the electrons and protons are equal, it is neutral. So, the number of electrons an atom has can make it have a positive or negative charge.
- Positive or negative charges can build up on objects. Static electricity is the buildup of these charges. Electric charges can attract and repel (pull together or push apart).

**Electric Force**-is the pushing or a pulling force between charged objects

**Attract**- pull together. If two objects have unlike or opposite charges, they will attract



**Repel**- push apart. If two objects have the same charge, they will push apart or repel



**Electric Charge** - a property of matter that can be positive or negative, and can change when matter loses or gains electrons.

**Electric Discharge**-When a charge moves quickly from one object to another (shock)

**Static Electricity**- the buildup of positive or negative electrical charges on an object