9.2 and 9.3: Charging by friction, conduction, and induction. Insulators and conductors.

The title of this section refers to the 3 ways an object can become electrically charged.

We have had a little practice charging objects by _____ (or _____)

The _____ allows the transfer of electrons: the item

losing electrons becomes _____ and the item gaining

electrons becomes_____.

Charging by _____ takes place when objects touch and an electric charge is transferred. Sound familiar? Yes, it is similar to friction.

Let's look at the example of a person walking across a carpet, touching a doorknob, and getting a shock.

The feet rubbing on the carpet is an example of charging by

_____. Now the person is carrying an electric charge. When that person touches the doorknob, there is a

_____ of electrons. This is charging by _____.

Charging by _____ occurs when an object is charged

without any direct contact. This explains why _____

dust particles are _____to your TV screen.

Our _____ experiments showed us that a static charge doesn't always stay. A big part of this has to do with the

_____ the charge is being applied to. We can describe

materials as either _____ or _____.

An _____ does not let electrons move about freely. This

means that any electrons that are _____ to it will stay

where they are. Because of this, an _____ can build up a

detectable static charge. _____ are good insulators.

A _____ is the opposite. _____ allow electrons to flow freely. As a result, as soon as you add electrons to a

conductor they _____ evenly. This means that no matter how much you try to add (or take away) electrons, you

can't build up a _____ charge.

An _____ is a great way to observe electric charge.

When an object is_____, it allows the charge to dissipate

into the actual earth. _____ an object usually allows the

charge to return to _____.