Section 9.1 Static Electricity All Around Us – Answer Key

1) What do shocks look like that you get from walking across a carpet and touching a metal door knob?

They look like small lightning bolts.

2) How do scientists describe the word *charged*?

They use it to describe materials that attract other materials after rubbing.

3) Static electricity is **charges that remain still (not moving) on the surface of a charged object.**

4) What is the science of static electricity called?

The science of static electricity is called electrostatics.

5) Where is the charge on a balloon after you rub it on an object?

The charge stays on the spot where you rubbed the balloon against the object.

6) Define insulator. **An insulator does not allow charges (electrons) to move freely on or through an object. In other words, an insulator loves its electrons and doesn't like to let them go.**

7) Define conductors. **Conductors allow charges to move freely. In other words, they don't really like their electrons. Conductors let their electrons go without a fight.**

8) Define friction (not in chapter). **Friction is the rubbing together of different materials.**

9) What do you think would happen if you rubbed two identical objects together? Would they attract each other, repel each other, or neither attract nor repel each other? Why

If two identical objects were rubbed together they should neither attract nor repel each other. Only two different objects seem to be able to produce the conditions for static electricity to be observed.