Electricity

(Instructor Required)

1. Explain and illustrate an experiment by which the laws of electrical attraction and repulsion are shown.
   Experiment ________________________________________________
   Explanation ________________________________________________
   __________________________________________________________________
   __________________________________________________________________

2. Explain the difference between direct and alternating current, and demonstrate the uses to which each is adapted. Give a method of determining which kind flows in a given circuit.
   Direct
   __________________________________________________________________
   Alternating
   __________________________________________________________________
   Method of determining kind of flow _________________________________
   __________________________________________________________________

3. Connect a buzzer, bell, or light with a battery using a switch in line.

4. Make and run a simple electric motor from a kit or take apart a motor and identify the parts, and explain how it works.

5. Make a simple battery cell.

6. Demonstrate ability to replace fuses or reset breakers and demonstrate a National Electric Code (NEC) approved splice using insulated wires.

7. Show how you would rescue a person in contact with a live electric wire, and have a knowledge of the method of reviving a person insensible from shock.

8. Make a simple diagram of a lighting system of an automobile.

9. Make a diagram that properly shows the lights, switches, and convenience outlets controlled by each breaker in a house.
10.  Read an electric meter correctly, and compute a residence bill at the rate charged in your community.

   Meter reading = ________________________________
   Community rate = ______________________________
   Bill = ________________________________