



Pathfinder's Name

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 = _____

Date completed _____

Instructor's Signature _____