

5. Parallel Circuits

Subject: Electricity

Objective: To teach about the parts of an electric circuit and to illustrate how electricity is conducted by connecting lights in parallel circuit and comparing it with series circuits.

Logistics: The class should be divided into groups of three or four.

Materials: (per group)

- 2 flash light batteries*
- 2 battery holders*
- 2 knife switches*
- 4 flashlight bulbs*
- 4 sockets for flashlight bulbs*
- 5 feet wire*
- 1 wire stripper*

Procedure:

Step 1: Draw parallel circuit on board and explain parts—wire, battery, bulb etc. Explain what a complete circuit is.

Step 2: Demonstrate cutting wire into 18-inch segments, stripping ends of wire and how to connect wire to parts of circuit such as switch, bulb and battery.

Step 3: Allow each group to work at their own pace. Circulate to answer questions and solve problems.

Step 4: After all groups have finished, review principles of an electrical circuit and ask the class what they have learned.

Vocabulary: *conductor, insulation, battery, switch, bulb, circuit*

What they Learn:

1. Idea of electrical circuits and comparing parallel with series circuits.
2. Electrical terms: battery, conductor, insulation, switch, incandescent bulb.
3. Idea of complete and incomplete circuit.