Quick Quiz

1. Draw a schematic for a circuit that consists of three lamps powered by a battery.
2. For each room in your home, make a schematic drawing showing how the lamps and switches controlling them are connected together.

Summary

Summary of Chapter 1:

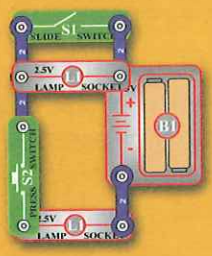
1. The electric current is a measure of how much electricity is flowing in a wire, and is expressed in Amperes.
2. The voltage is a measure of the electric pressure exerted into a wire or circuit by a battery or other power source, and is expressed in volts.
3. Switches are used to turn on or turn off the flow of electricity in a circuit.
4. A light bulb converts electricity into light.
5. Most electronic products have components mounted on circuit boards with the wires literally printed on the board surface.
6. Electrical circuits are all combinations of series and parallel configurations.
7. A short circuit is a no-resistance path across a power source, and causes damage to components and batteries.
8. Solder is a special metal that is melted to make solid electrical connections.
9. Schematics are engineering drawings of circuits using symbols.

Quiz

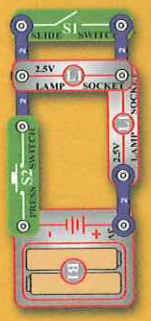
Chapter 1 Practice Problems

1. The flow of electricity is measured in _____.
   A. gallons B. minutes C. amperes D. volts
2. To turn on a switch, you _____ it.
   A. voltage B. open C. pressurize D. close
3. Three of the choices below are the same circuit with the parts arranged in different ways. Which choice is a different circuit?

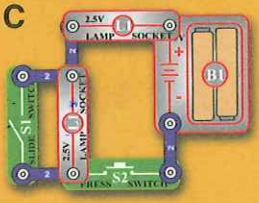
A



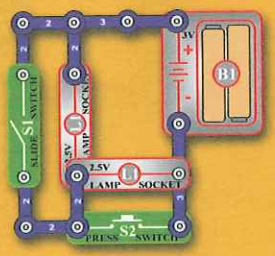
B



C

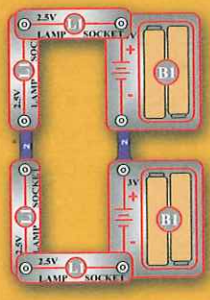


D

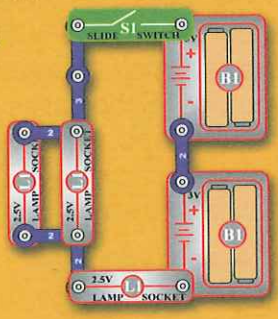


4. Which of these is a short circuit?

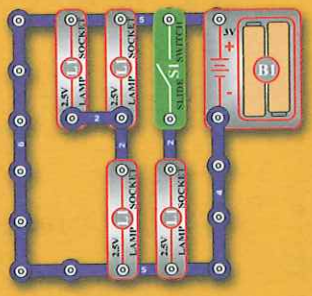
A



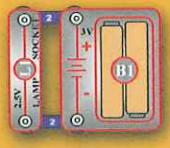
B



C



D



Answers: 1. C, 2. D, 3. D, 4. C