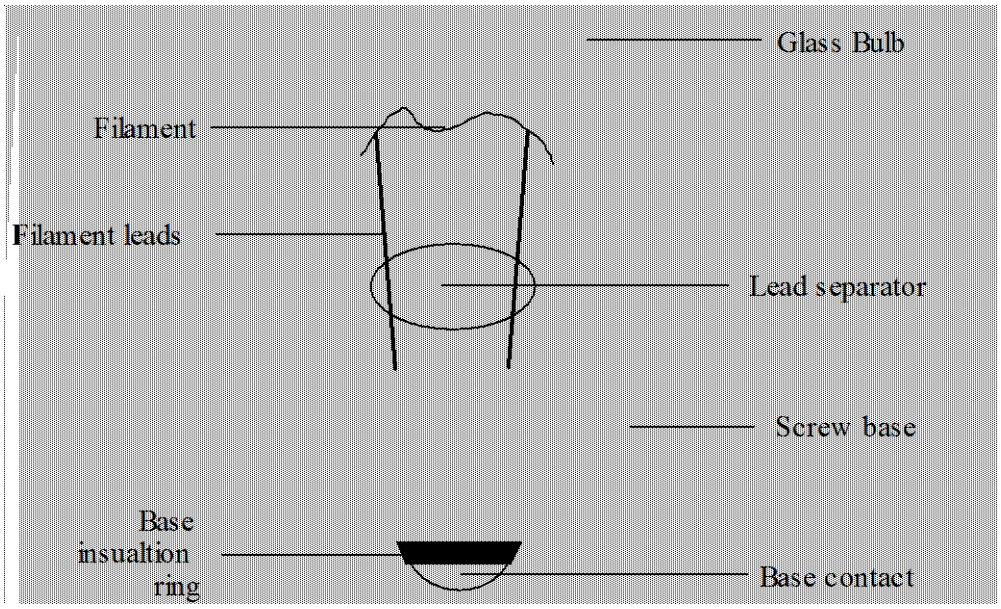
Batteries and Bulbs [Activity]

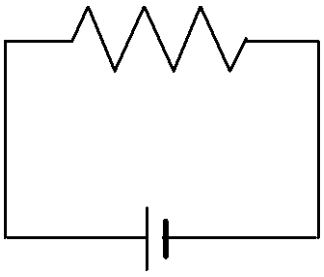
This activity includes essential experiences for students to have when learning about electric circuits.

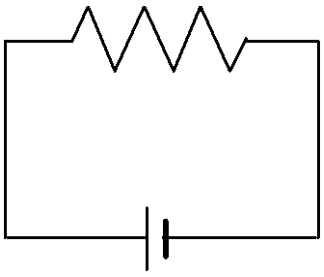
Answers to Procedure Questions

1. Anatomy of a light bulb:



2. Conducting parts: screw base and bottom contact.
   Insulating: glass bulb and insulation ring.
   Two-Wire Circuits: connect terminals of the battery to the screw base and base contact.
3. One-Wire Circuits: place the base contact on one terminal and connect the wire from the other terminal to the screw base. While the artistic efforts of the students may differ, the DIAGRAMS should be essentially the same (as shown here).
   No-Wire circuits are not possible: cannot get connections from both terminals to both conducting parts of the bulb.
4. Each bulb is dimmer in the series circuit than it was in the simple circuit.
5. Both bulbs go out.
6. Each bulb is about as bright in the parallel circuit as the original bulb was in the simple circuit.
7. The unscrewed bulb goes out but the other bulb stays on.





Answers to Summing Up Questions

1. The screw base and the bottom contact.
2. They all involve connecting the two terminals of the battery to the two conducting parts of the bulb.
3. In parallel; when one item is turned off or removed, the others continue to work.
4. In parallel; when one bulb goes out, the other remains lit.