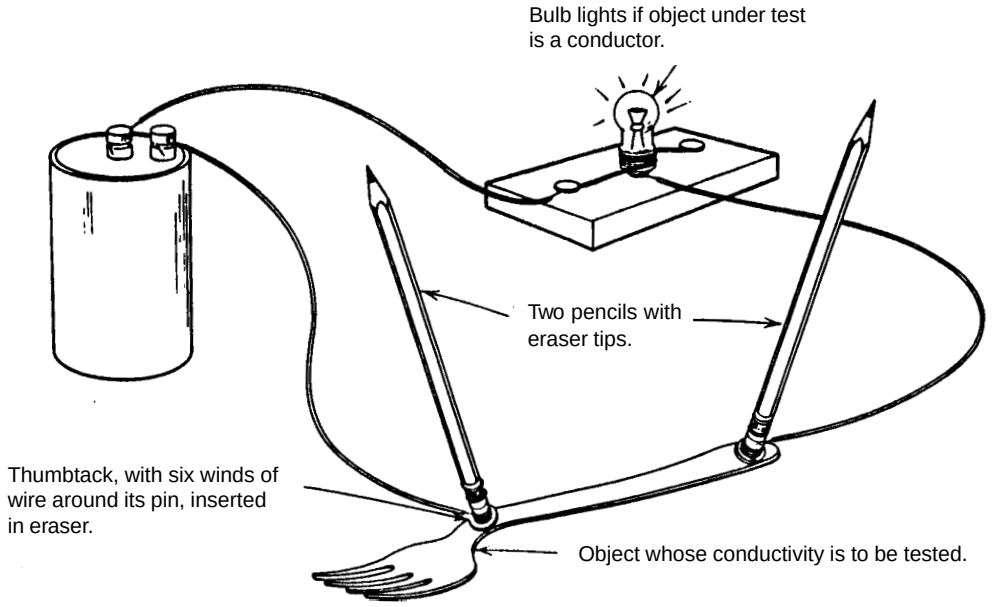
Making a Conductivity Tester for Solids

Connect a 1.5 V dry cell or a 6.0 V battery to the bulb assembly as shown. Attach the other insulated wires that have been stripped of insulation at their ends.

The ends of the two wires can act as probes or, if you wish, probes can be made out of pencils and thumbtacks. This is done by removing the last 4 cm of insulation from the two wires and wrapping the bare wire about six times around each of two unpainted thumbtacks. When a tack is pushed into the rubber eraser at the end of a pencil, a convenient probe has been created.

Use the tester by placing the probes on the solid object that is being tested for conductivity.



Adapted from Graf, R. *Safe and Simple Experiments.* 1973.