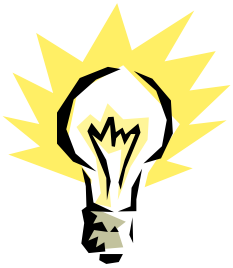
Thomas Edison's Filament Experiment.

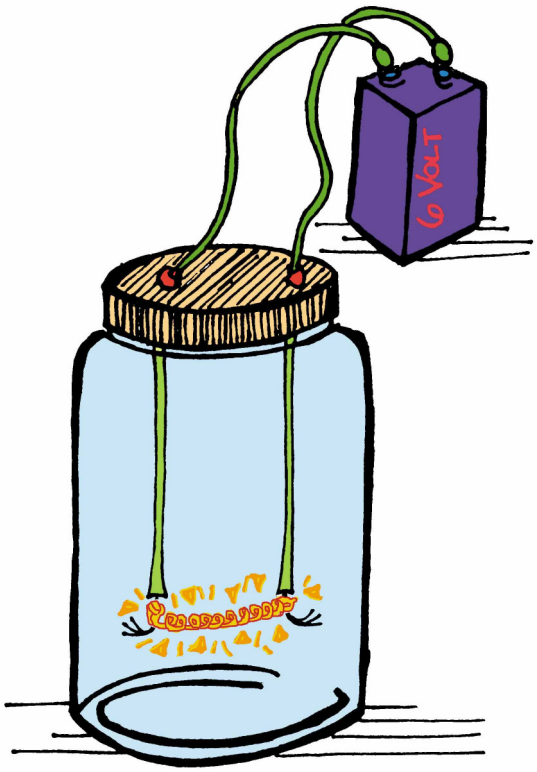


Equipment:

1)	Nichrome wire	10 feet of both 32 and 28 gauge wire (Wiretronic inc. 1-888-947-3876)
2)	Copper wire	20 feet of wire
3)	Mason Jars	Six jars (found in grocery stores for canning fruit)
4)	Tea light candles	Six candles (and matches to light the candles)
5)	Batteries	At least ten 6 volt batteries
6)	Wire cutters/strippers	
7)	Scotch Tape	

Set-up: (See example below)

1) Punch two holes in the metal cap of a mason jar.
2) Get two pieces of copper wire about 6 inches in length.
3) Use a wire stripper to strip the insulation off both ends of the wires.
4) String one of the copper wires halfway through a hole in the jar lid.
5) Tape the wire down to the top of the lid with scotch tape.
6) Repeat the last two steps with the other copper wire.
7) Cut lengths of nichrome wire (about 2 inches) to test.



Directions:

1) Unscrew the lid of the mason jar.
2) Get a length of nichrome wire and attach it to the two copper wires.
3) Screw the lid back on the jar.
4) Attach a 6 volt battery to the wires on the outside of the jar and see if the filament will light.
5) Try a different gauge of wire. Does it work better, last longer, Etc.?
6) What would happen if you could get rid of the oxygen in the mason jar before lighting up the filament? How could you do this? (Hint: candle)
7) Try different batteries or more batteries in series or parallel. What happens? What else could you test?