

Electricity and Magnetism



Conduct the following three experiments.

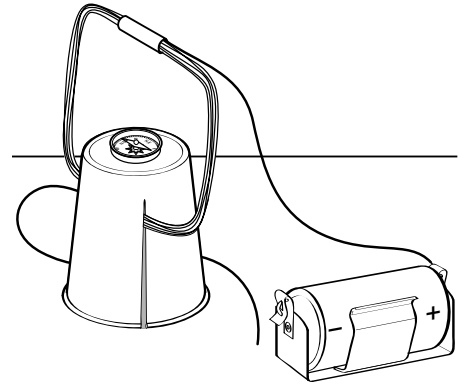
Note: DO NOT ATTACH BOTH ENDS OF THE WIRE COIL TO THE BATTERY. Close the circuit by briefly touching the free end of the wire to the free end of the battery holder.

Experiment 1

Set up the materials as shown.

Close the circuit briefly and observe the compass.

What happens?



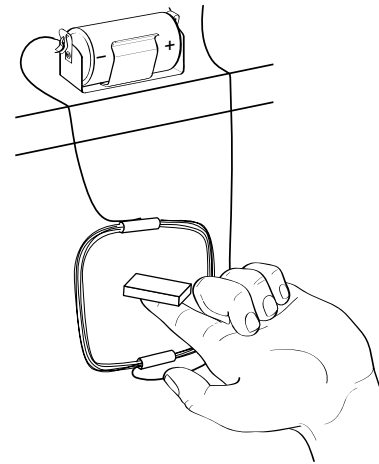
Experiment 2

Hang the coil from a desk so it can swing freely.

Balance the magnet on the tip of your finger inside the coil.

Touch the free wire to the battery holder.

What happens?



Experiment 3

Place the coil flat on your desk.

Stand the ferrite magnet inside the coil.

Use the wire to close and open the circuit.

What happens?

