

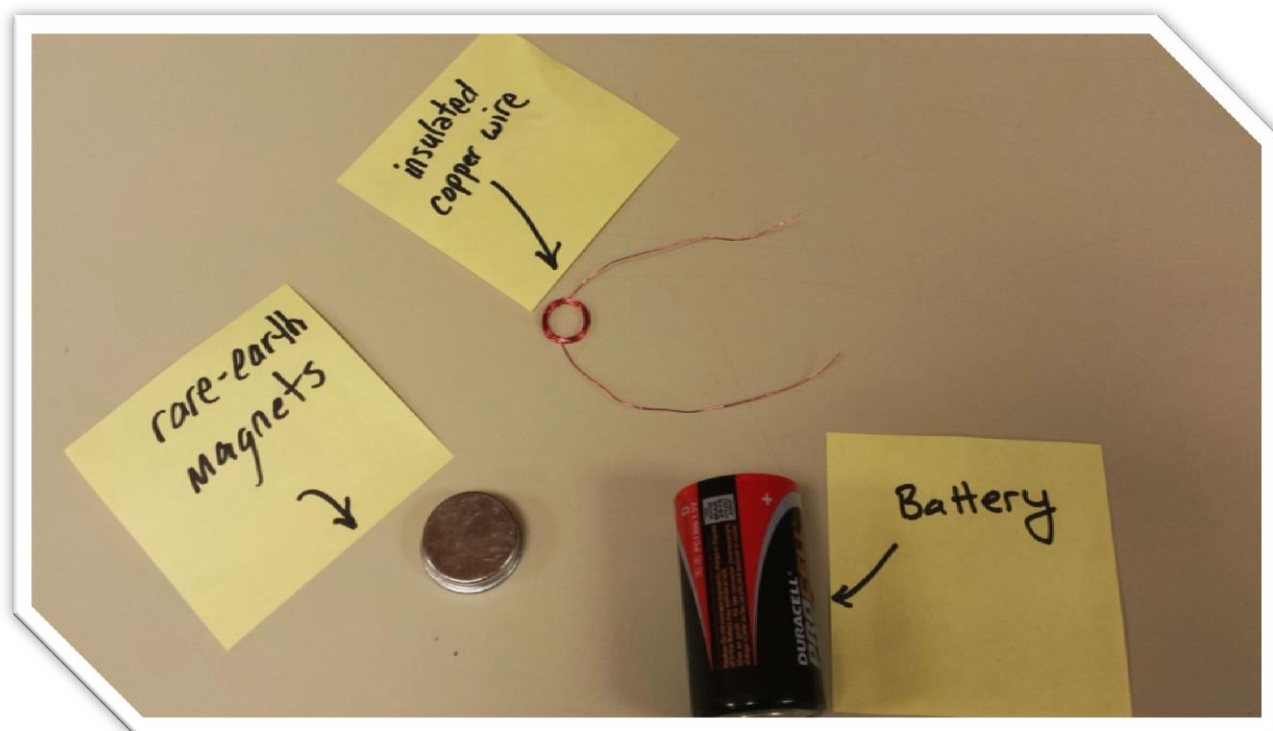
Motor Principle – Mini-Investigation

Name: _____

Date: _____

Activity

Gather the materials outlined in the image below:



- Approximately 25 cm of insulated copper wire that you will wind around the thick part of a pen to create a tight coil of wire. Wrap the leads once around the coil to secure it and leave enough to attach to the battery. Sand off the ends so that you can connect it to the terminals of your battery.
- 1 D-cell battery
- 2 Rare earth magnets (attached to a metal washer)

Test it Out!

Connect the coiled wire to your battery and place it over the external magnets so that the wire repels from magnets. Reverse the battery so that it attracts. Play around with this and try different things.

Why?

Explain why the coiled wire is attracted (or repelled) by the magnet (when electricity flows through it) even though copper is not a ferromagnetic material.
