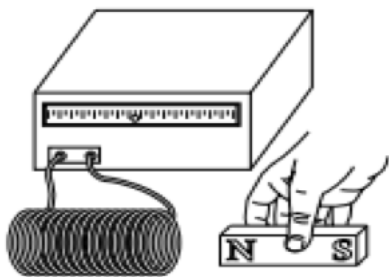


Producing electricity – inquiry activity

Electricity can be made using a magnet and a coil of wire.

You need a lot of wire and a very strong magnet to make enough electricity to light a bulb. However, in a school laboratory you can only make a little electricity. An instrument called a galvanometer to show how much electricity is being made.



Method

- ① Get a few metres of insulated wire and wind it into a coil.
- ② Connect each end to the galvanometer.
- ③ Take a bar magnet into the coil and rotate it.
- ④ Notice the needle on the galvanometer.

Moving the magnet

What happens if:

- a) The magnet is not moving?
- b) The magnet is moved slowly into the coil?
- c) The magnet is moved quickly into the coil?
- d) The magnet is moved out of the coil?

Number of coils of wire

What happens if you increase the number of coils of wire?

Direction of movement

What happens if:

- a) The magnet is moved into the coil?
- b) The magnet is moved out of the coil?
- c) The magnet is turned around and moved into the coil?

Considering your results / conclusions

Describe and explain what has happened as you followed the steps above.