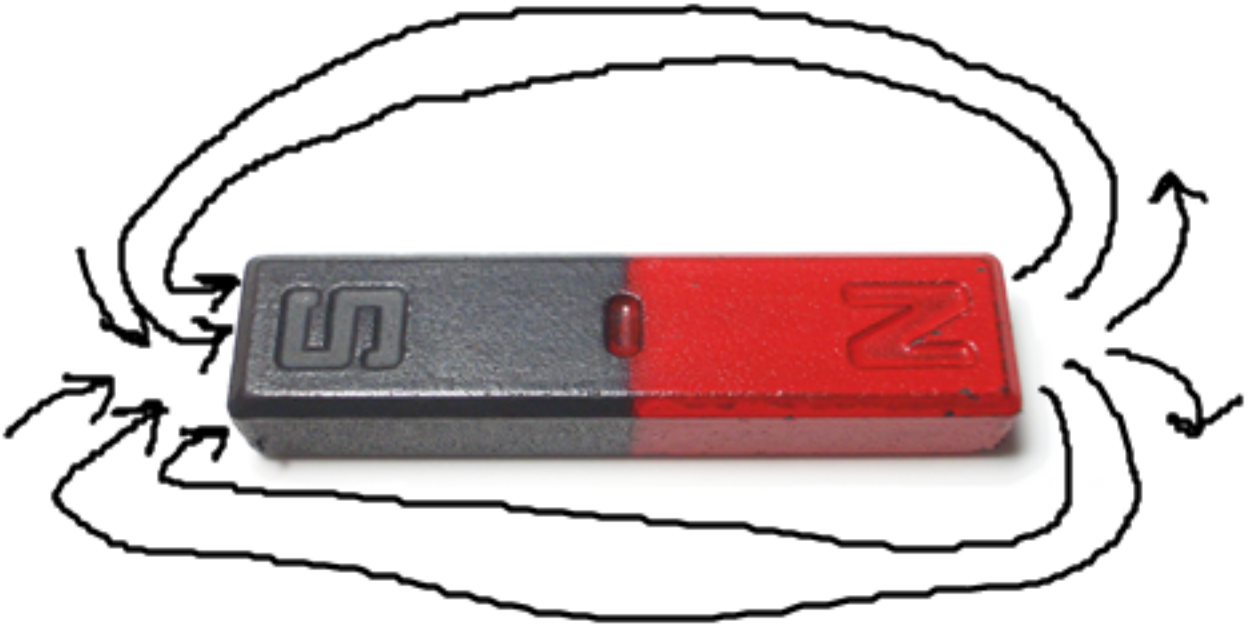
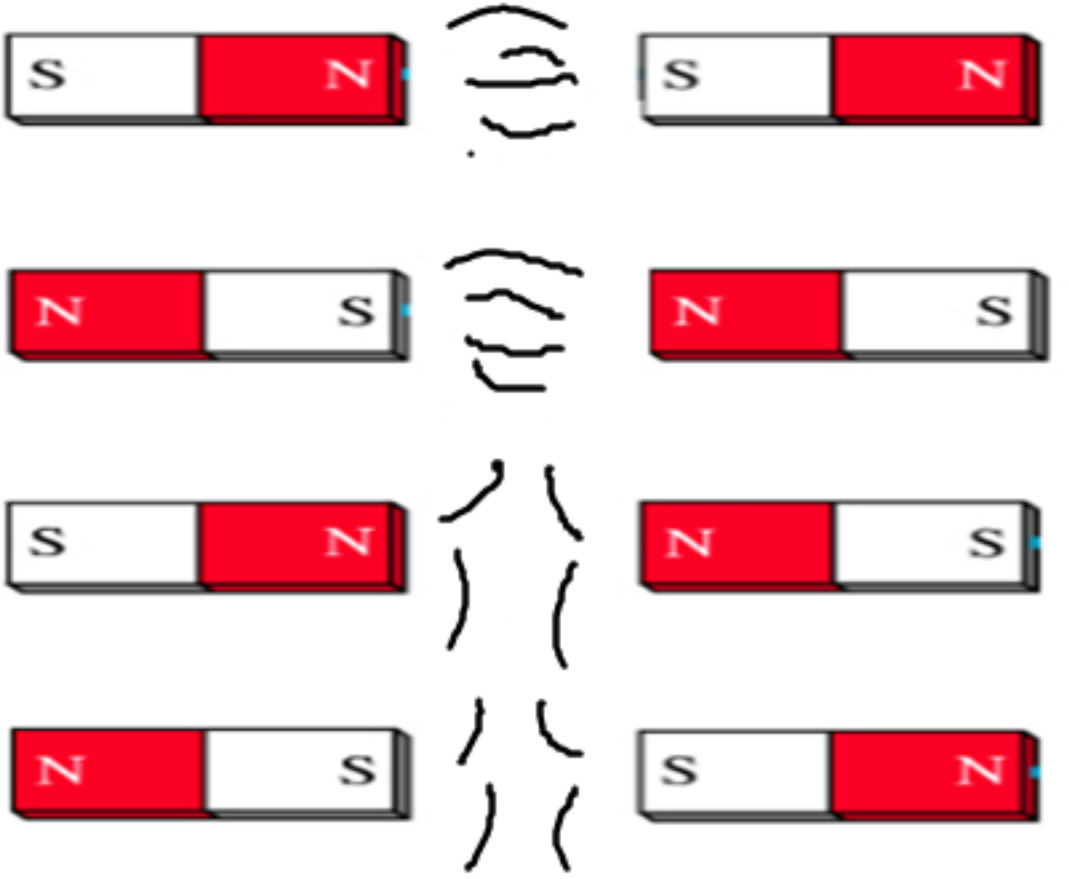
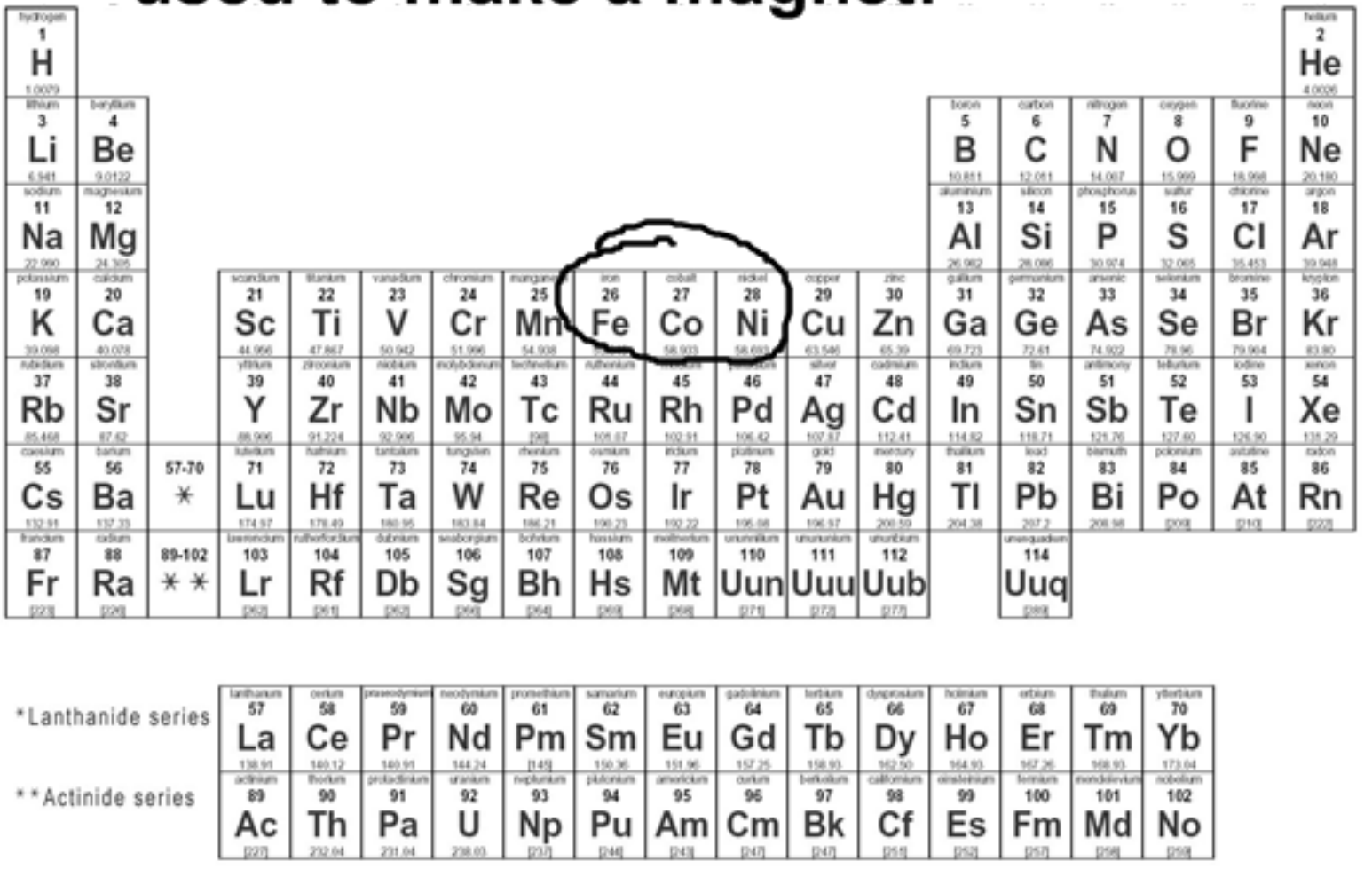
Draw the magnetic field lines around the bar magnet below:



Draw the magnetic field lines that would occur between each set of magnets below:



Circle the 3 metals that can be used to make a magnet:



*Lanthanide series

**Actinide series

Magnetic Field lines always move _____ the _____pole and _____ the _____ pole of a magnet.

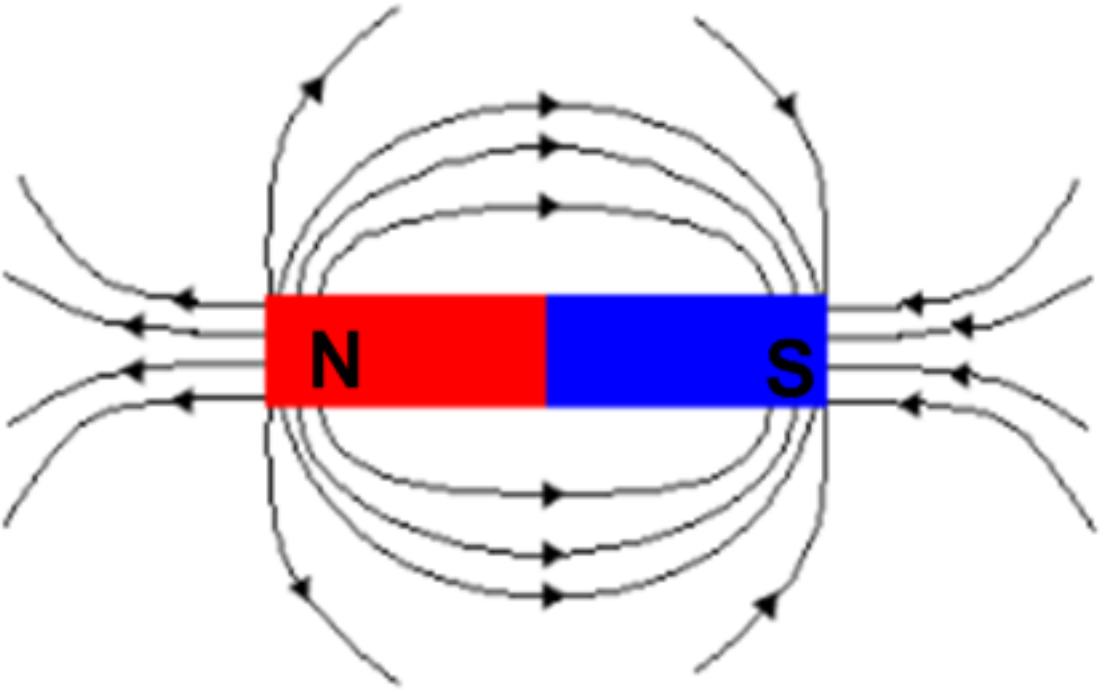
out of

north

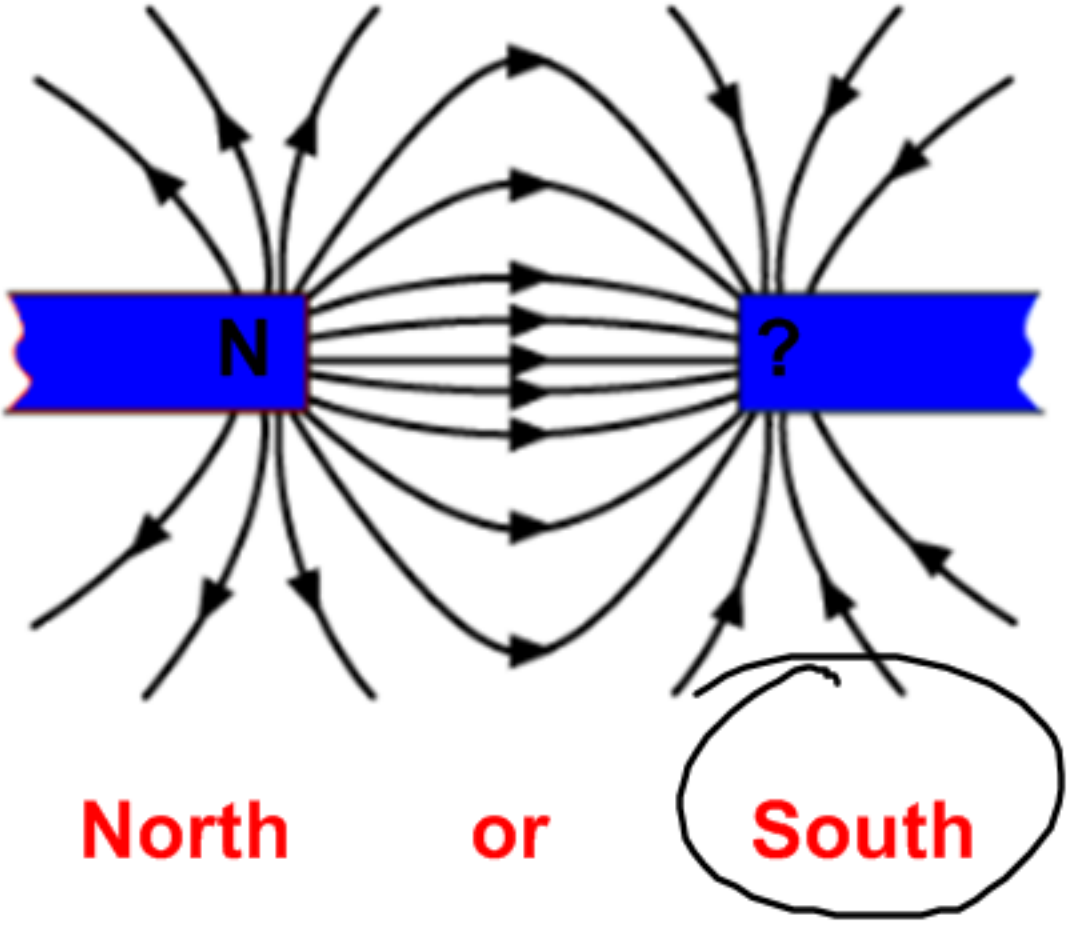
into

south

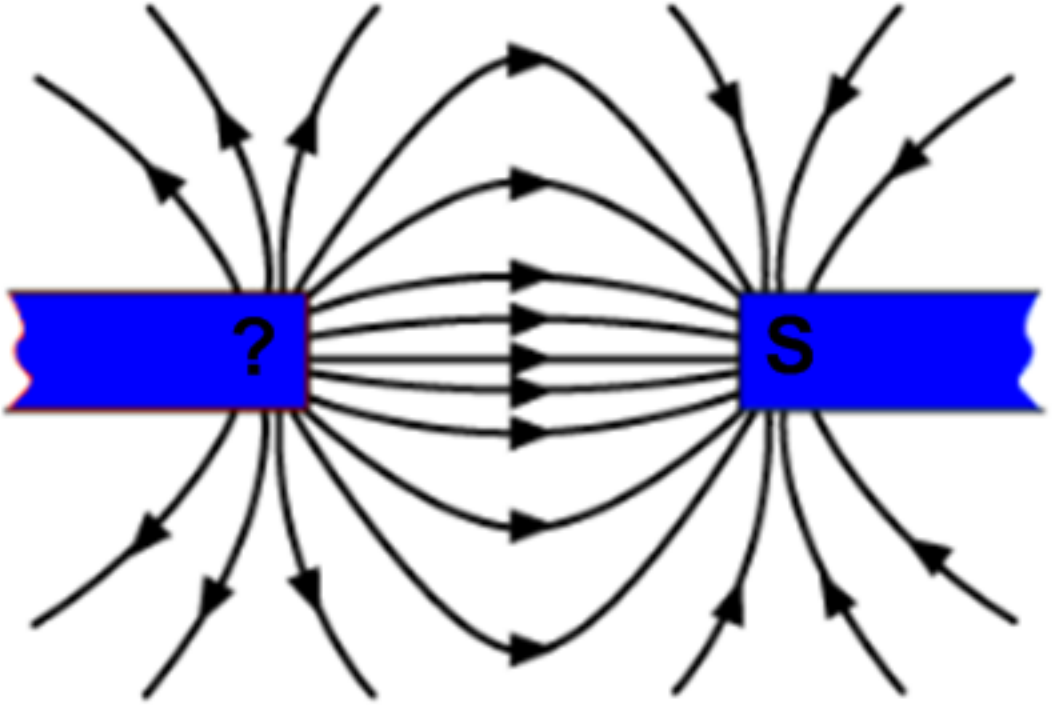
Identify the North and South poles of the magnet below:
(Drag the Letters to the proper place)



Identify the Unknown Pole:

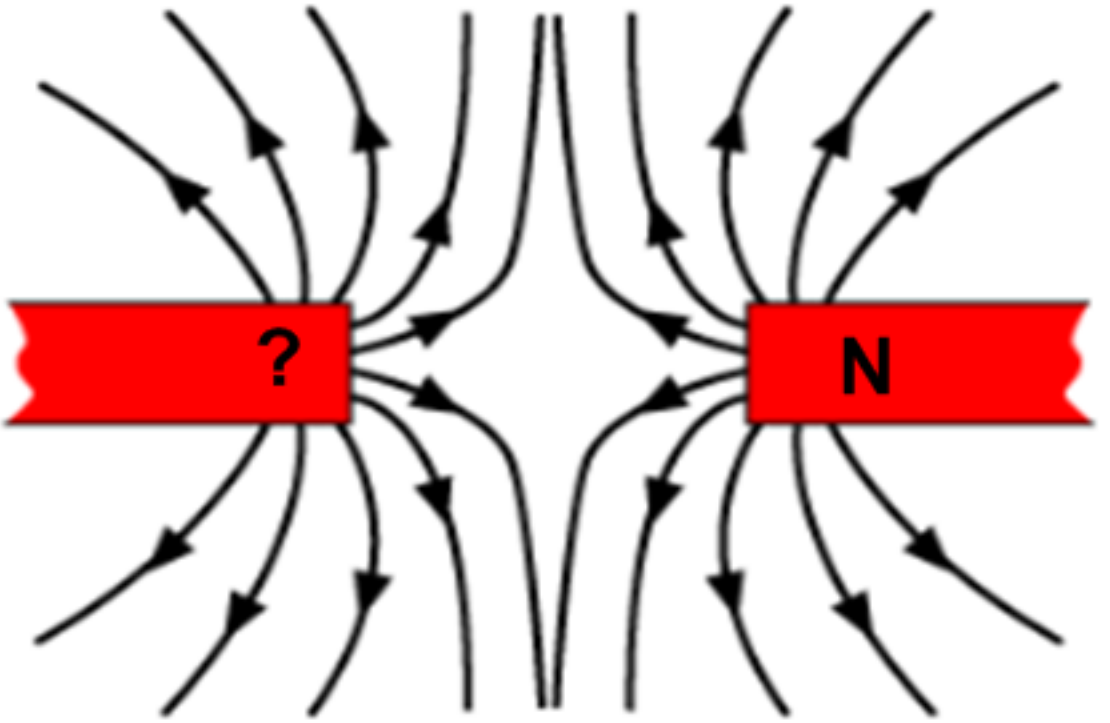


Identify the Unknown Pole:



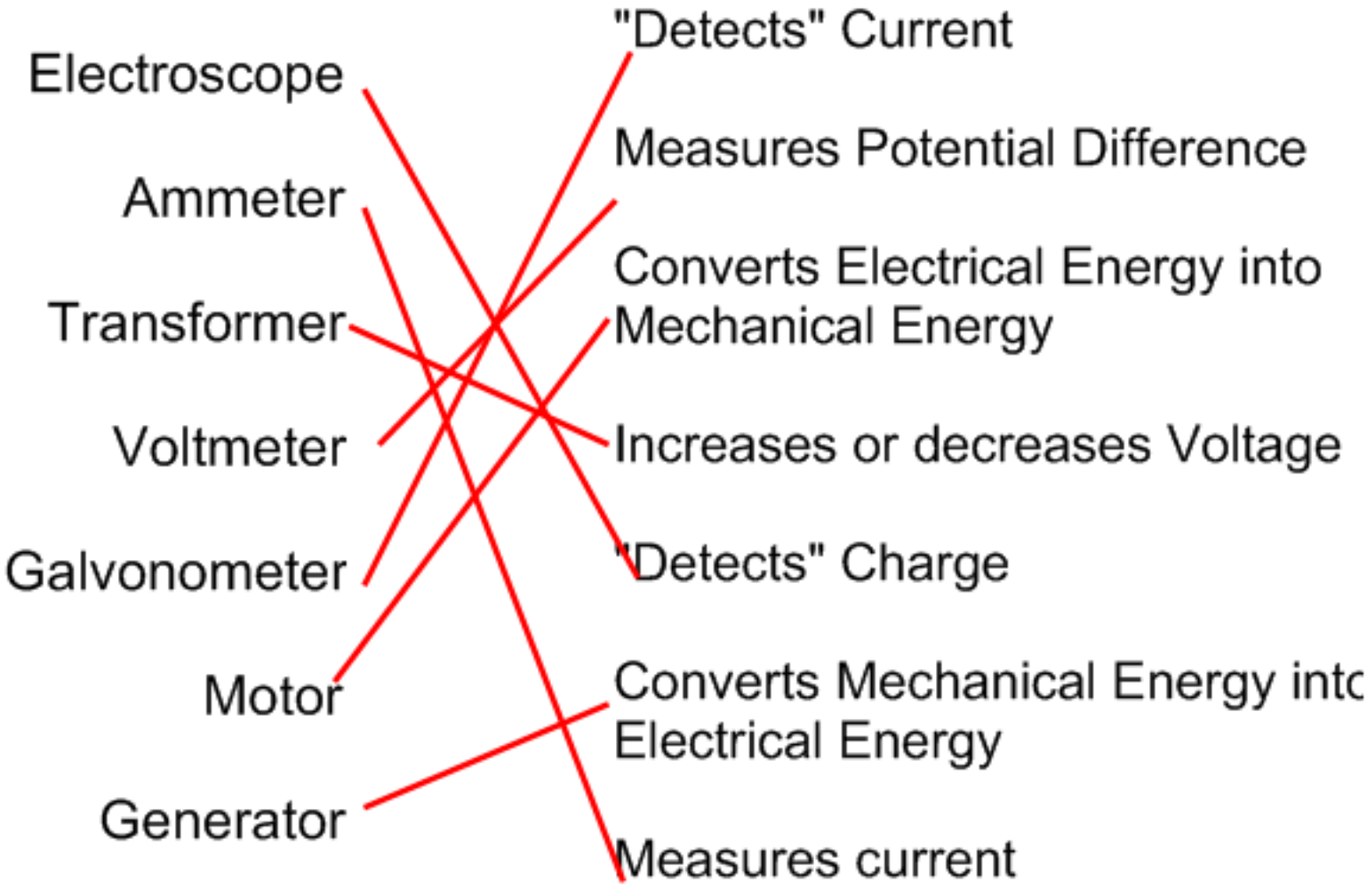
North or South

Identify the Unknown Pole:



North or South

Match the following Devices with their application:



Oersted discovered that moving a Current through a wire produced a magnetic field around the wire. Faraday and Henry discovered that moving a wire through a Magnetic Field or moving a magnetic field through a coil of wire produced a Current on the wire!!

Motors use electromagnets to convert electrical energy to mechanical energy.

generators use electromagnets to convert mechanical energy to electrical energy.

There are 2 types of transformers:
step-up transformers increase the voltage and step-down transformers decrease the voltage.

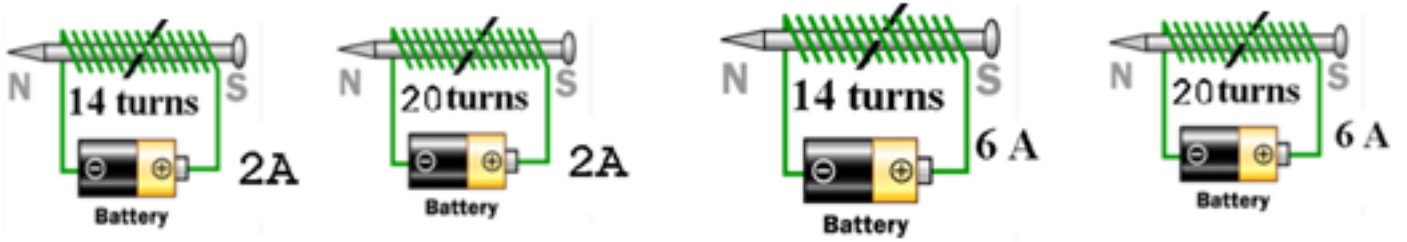
In a step-up transformer, there are more turns of wire in the secondary coil than in the primary coil.
In a step-down transformer, there are more turns of wire in the primary coil than in the secondary coil.

transformers are used to increase or decrease the voltage of alternating currents.

Each consists of 2 turns of wire:

The primary coil is the coil the current enters and the secondary coil is the coil the current leaves.

Place the Electromagnets below in order of strength(from weakest to strongest):



Weakest → strongest

A student coiled wire around a nail, attached both ends to a 1.5-V battery, and attempted to lift paper clips with the nail.

Results

Number of Turns of Wire	Paper Clips Picked Up
10	2
20	4
30	10
40	20

What is a valid conclusion for this investigation?

A Increasing voltage increases electromagnetic strength.

B Increasing the number of turns of wire decreases electromagnetic strength.

C Increasing the number of turns of wire increases electromagnetic strength.

D Increasing the number of turns of wire has no effect on electromagnetic strength.

A student performed an experiment to determine the number of paper clips that are attracted to an electromagnet as the amount of current changes.

Data Table

Current	Number of Paper Clips
5 A	20
10 A	40
15 A	60
20 A	80

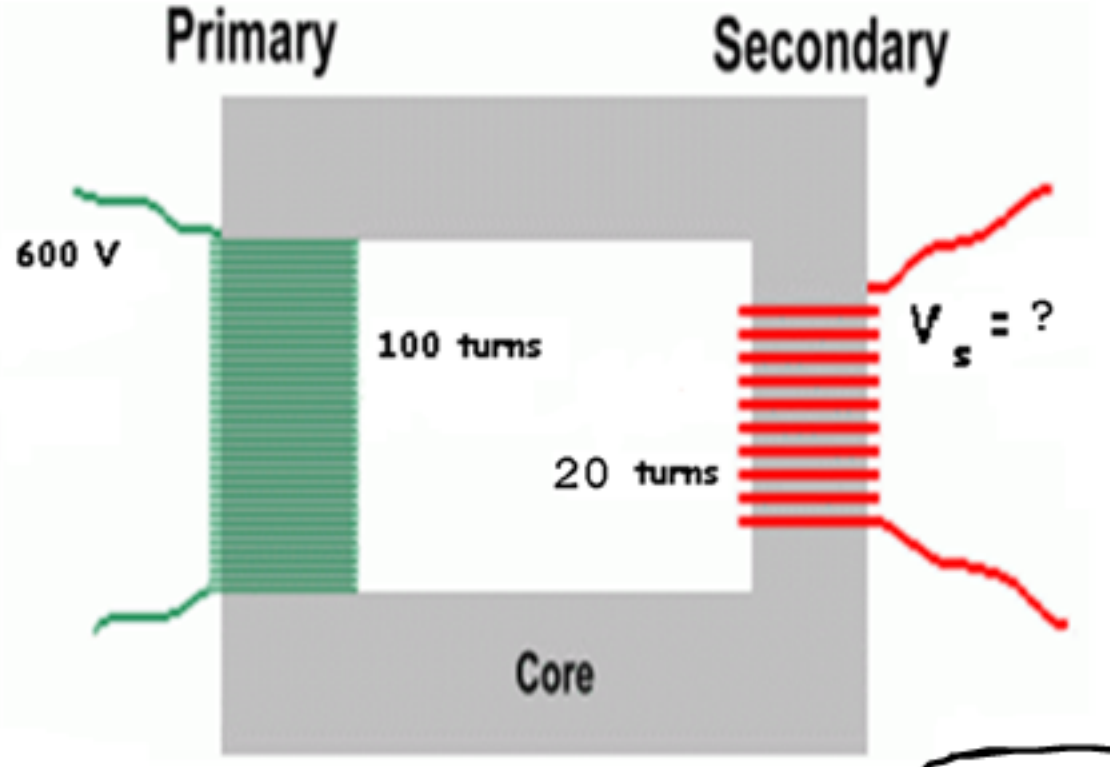
What is a valid conclusion for this investigation?

a) Increasing current decreases magnetic field strength.

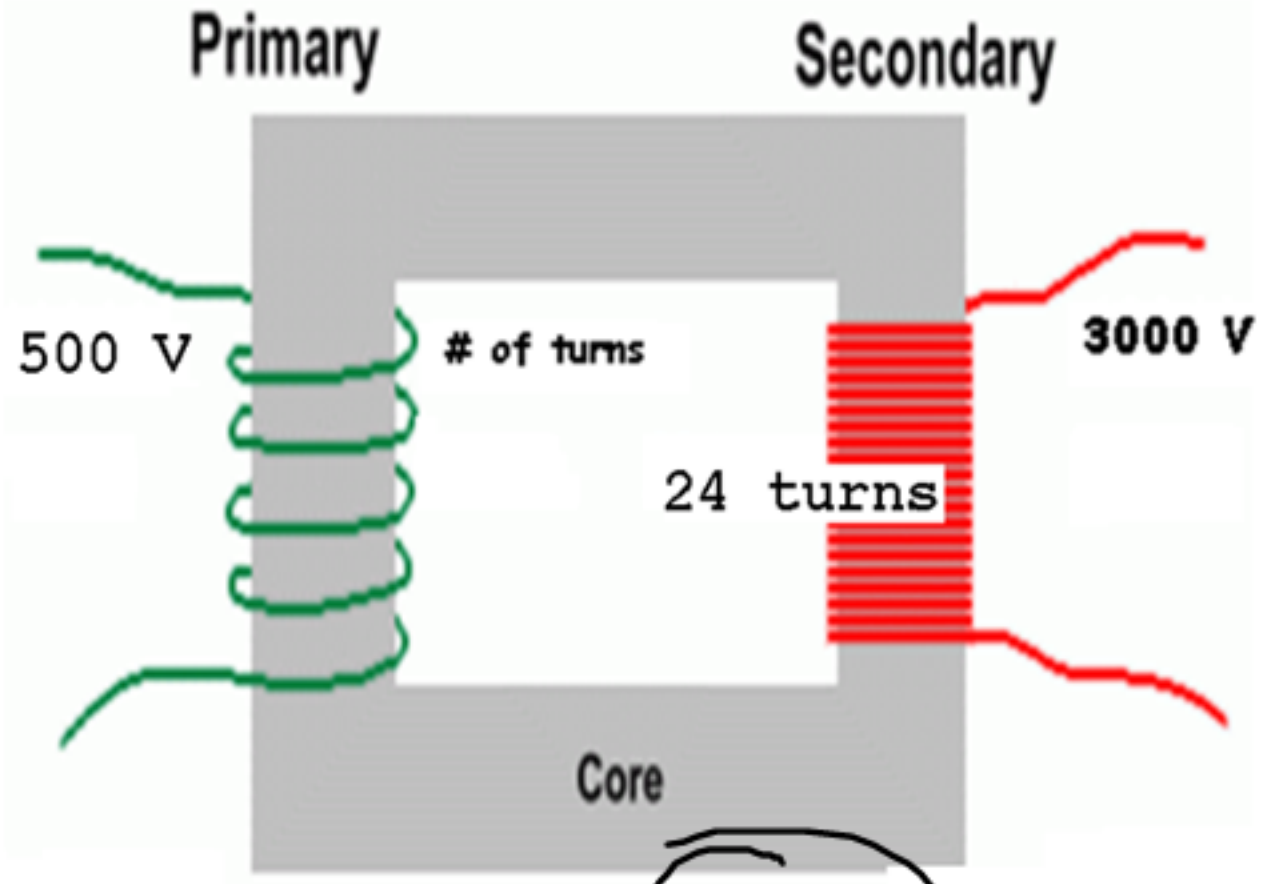
b) Increasing current increases magnetic field strength.

c) Increasing the turns of wire increaes magnetic field strength.

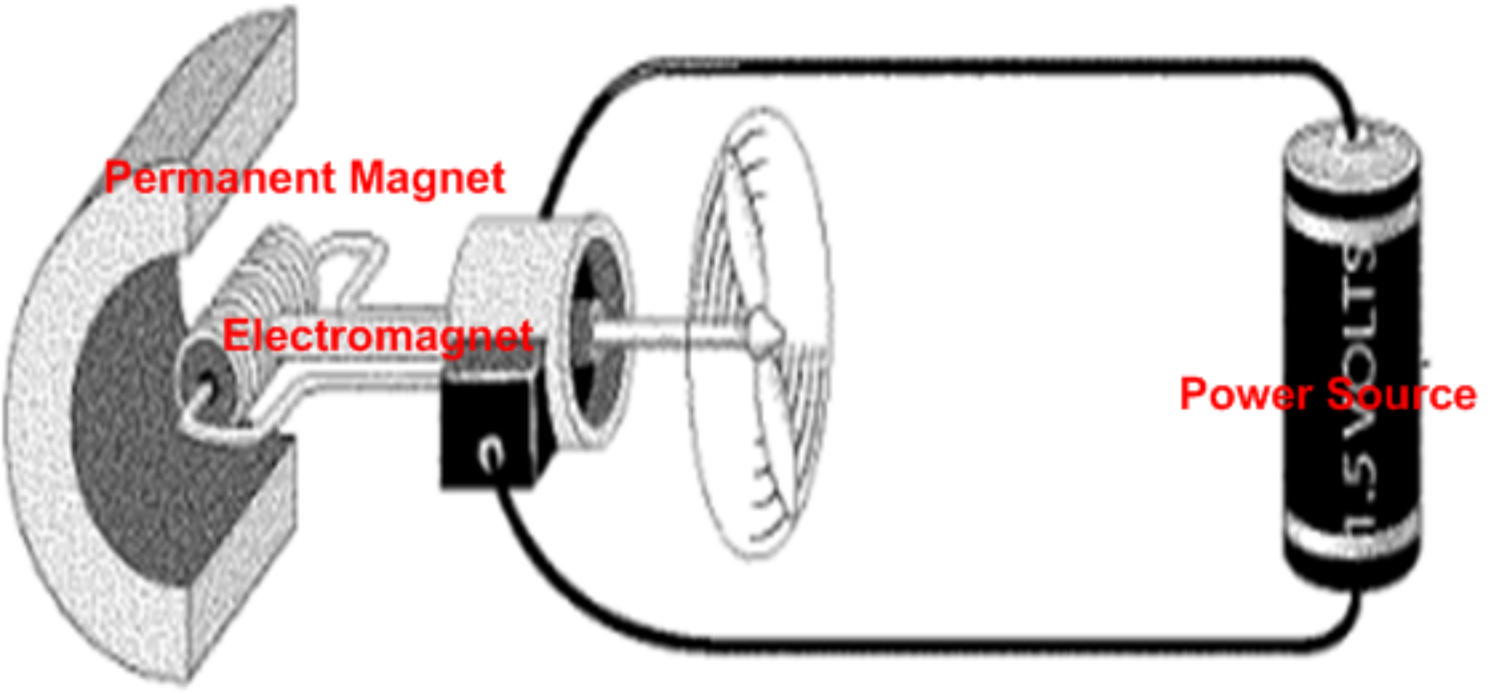
d) Increasing the turns of wire decreases the magnetic field strength.



What type of transformer is shown above? Step up or Step down



What type of transformer is shown above? Step up or Step down


Permanent Magnet
Electromagnet
Power Source

Review will can be downloaded from www.albphysicalscience.weebly.com. Click on Magnetism Test Review tab and follow instructions!!!!

- P. 230 1-6
- P. 237 1-5
- P. 244 1-6

*p. 250 1- 14