

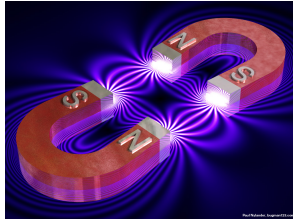
Magnetism

Magnetism

Objectives

Describe the nature of magnetism.

Understand the behavior of magnetic poles and magnetic lines of force in relationship to magnetic fields.



Magnetism

Refers to the properties and interactions of magnets.

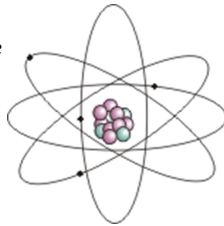


natural magnet - magnetite

Nature of Magnetism

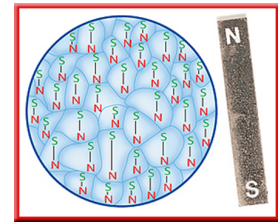
Force of attraction or repulsion due to arrangement of e^-

Motion of e^- , particularly their spin sets up magnetic fields.



Magnetic Domains

Region of atoms grouped together with magnetic fields.



Magnetic Materials

Natural Magnets - permanent.
Aligned magnetic domains
Fe, Co, Ni



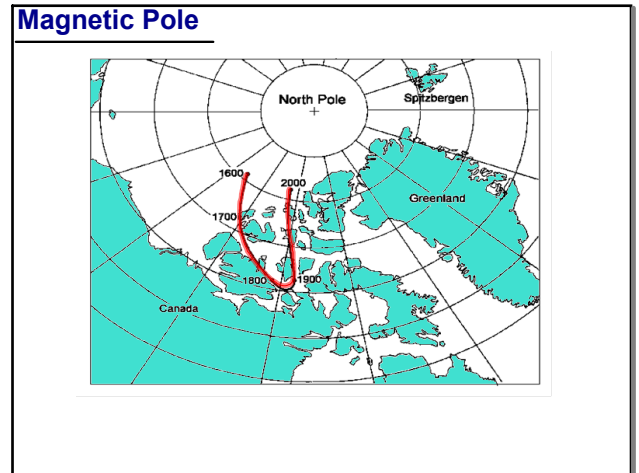
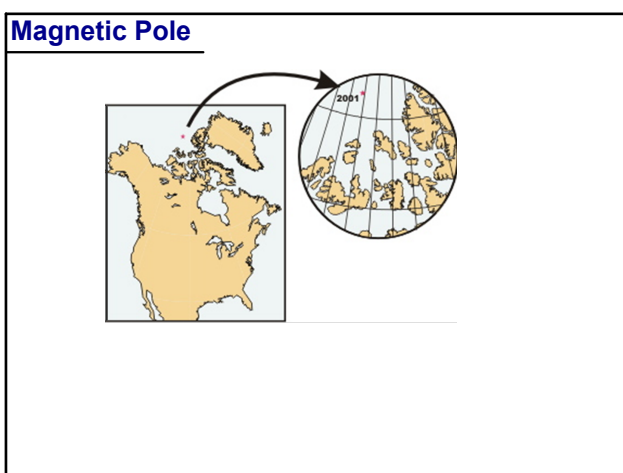
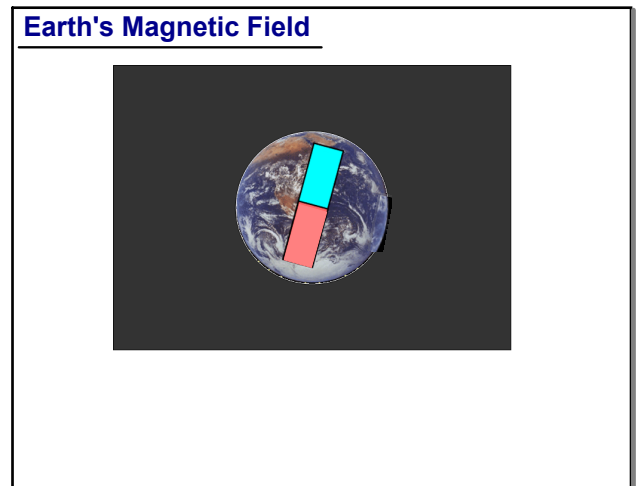
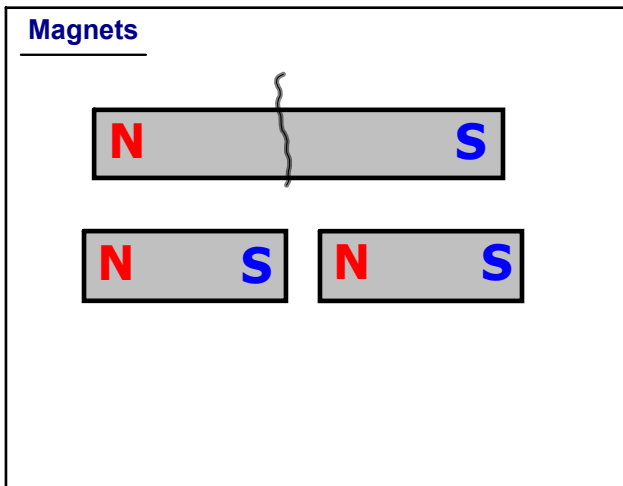
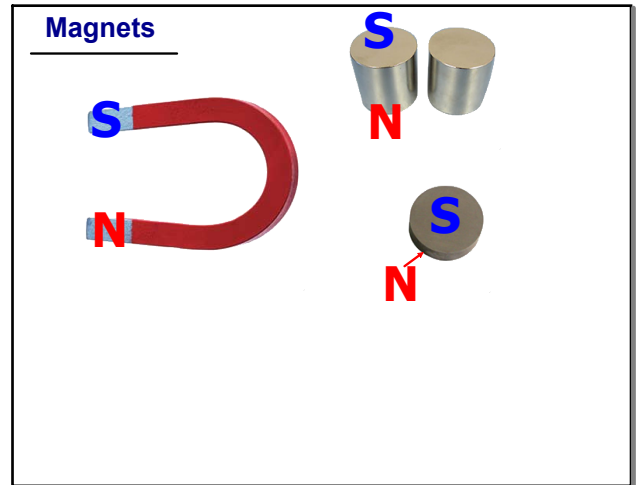
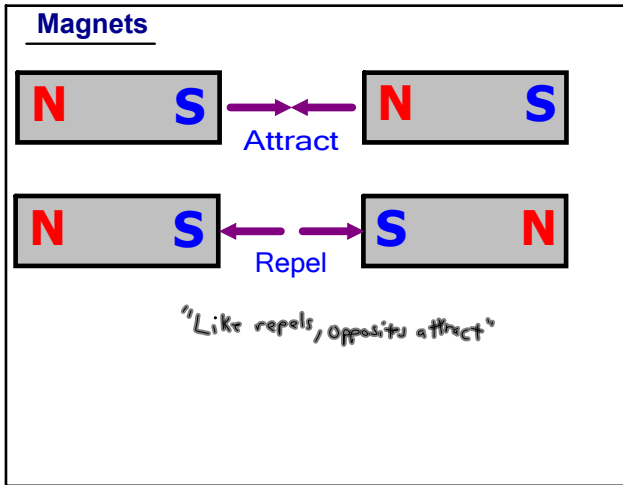
Artificial Magnets – temporary
Magnetic induction
Electromagnets



Magnets

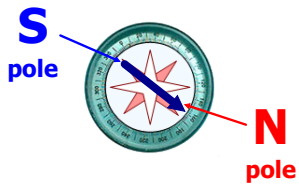


Magnetism

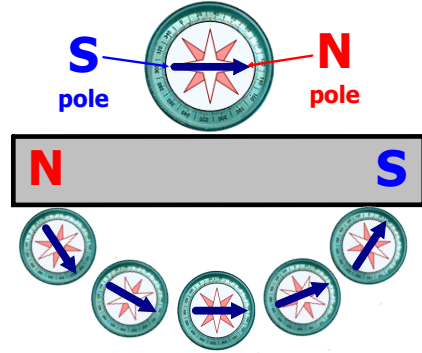


Magnetism

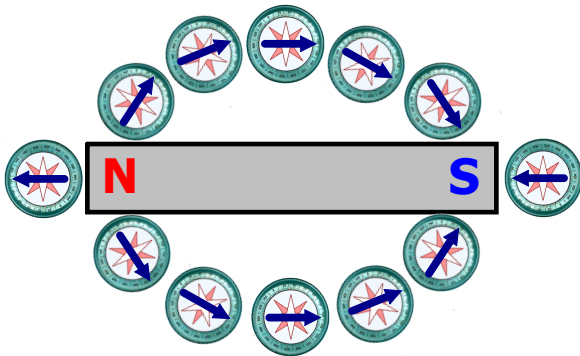
Measuring a Magnetic Field



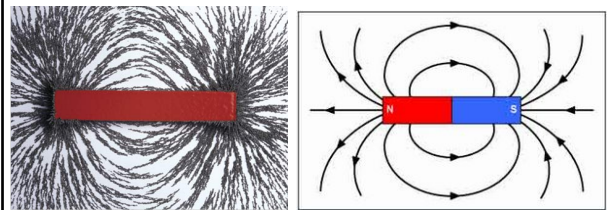
Measuring a Magnetic Field



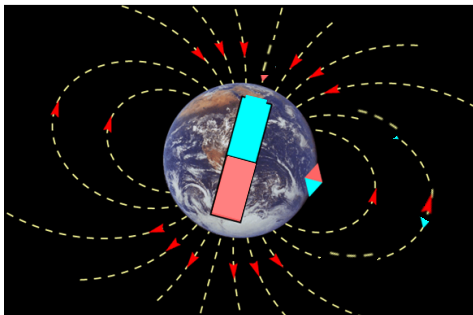
Measuring a Magnetic Field



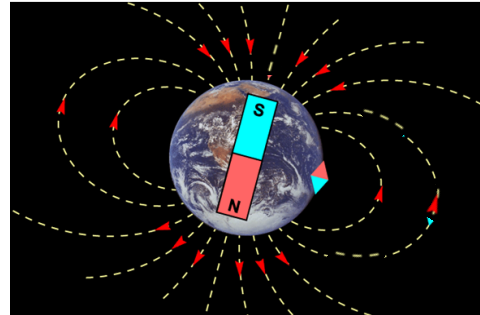
Magnetic Field Lines



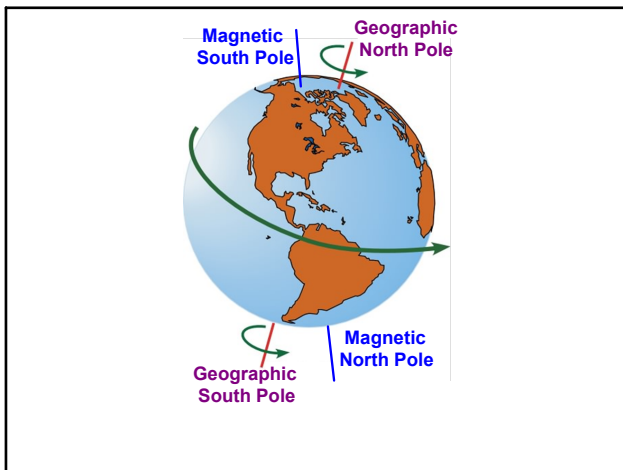
Earth's Magnetic Field



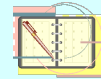
Earth's Magnetic Field



Magnetism



Assignments . . .



- Lab: Magnetic Field Lines tomorrow

