Mr. Jenkins Physics I

Assignment Sheet
Magnetism

Objectives
You will be able to:

A. Define magnetic pole, magnetic domain, and ferromagnetic material.
   Distinguish between magnets and electric charges
   Describe in terms of domains what happens when a bar of ferromagnetic material is magnetized and demagnetized.
   Sketch the magnetic field in the vicinity of a magnet
   Use a compass to determine the direction of the magnetic field lines in a given region.
B. Define right hand for a charge moving in a magnetic field, a current-carrying wire, and a solenoid
   Sketch the magnetic field in the vicinity of a current-carrying wire, a loop of current-carrying wire, and a solenoid.
C. Sketch the magnetic field in the vicinity of a loop of current-carrying wire and a solenoid.
   Explain the function an electric meter and electric motor
   Explain the function of a velocity selector, mass spectrometer
D. Define magnetic flux and electromagnetic induction
   Describe the function of an electric generator and a transformer.

Reading

A. Magnets and Magnetic Force, p. 277–280
B. Magnetic Effects of Electrical Currents, p. 280–283
C. Magnetic Effects of Current Loops, p. 283–286
   Direct-Current Motors, p. 286
D. Faraday's Law: Electromagnetic Induction, p. 287–290
   Generators and Transformers, p. 290–294

Laboratory
Magnetism exploration

Key Questions:
p. 295ff Q3-4, 8, Q12-13, Q17