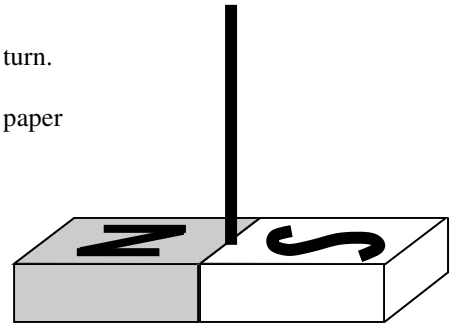
A-Day Due Fri., May 8
B-Day: Due Mon., May 11

2009 PreAP Magnetism 1

You should also do the regular physics homework: Magnetism 1.

Starting in your book on page 767...

1. A bar magnetic as seen at the right, is suspended by a string so that it is free to turn.
   A. Which side of the magnet points toward the earth's north pole?
   B. The magnet stops moving in the position shown, which side of this piece of paper is facing toward the earth's north pole?
   C. The earth's geographic north pole is what pole of the earth's internal magnetic field?



2. A. What does Maglev mean?

   B. Give the book's example of Maglev.

3. Describe how to separate a north from a south pole.

4. Give two ways to magnetize a piece of iron.
   i.

   ii.

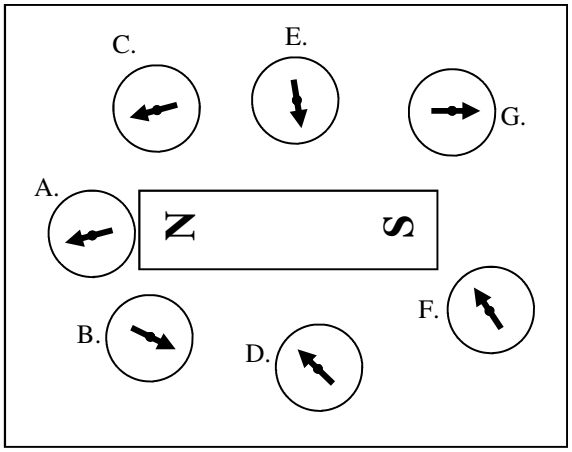
5. Give two ways to unmagnetize the iron.

6. What is a soft magnetic material (and give an example)?

7. What is a hard magnetic material (and give an example)?

8. Study Figure 21-2.
   A. Magnetic field lines always point from ____ to ____.

   Just like with electric field lines, when the magnetic field lines are closer together, the field strength is greater.
   B. In the diagram at the right, which compasses are correct?



9. What variable do we use for magnetic field?

10. How is the direction of B defined?

11. Describe the relationship between the magnetic and geographic north poles of the earth.

12. Where does the earth's magnetic field come from?

More on back

Turn to p.772—

13. What is the classical explanation of the origin of magnetism?

14. Why is it that most materials are not magnetic?

15. What three metals tend to have magnetic properties?

16. Why are they magnetic?

17. Define and explain “magnetic domains”. (PS—this is VERY important.)