

Name: Pa S  
Due: \_\_\_\_\_

## MAGNETISM STUDY SHEET

Each of the following questions represents a concept discussed in class. Further information can be found in Chapters 19-20 of the text.

1. State the rule for magnetic attraction and repulsion.

**Opposites Attract, Likes repel**

2. List the 3 categories of magnetism found in various materials:

**See note sheet**

3. List the 4 elements that can be made into permanent magnets:

**See note sheet**

4. How can you make a temporary magnet? How does it differ from a permanent magnet?

**Bring a magnet next to it and it lines up the domains. It does not stay magnetic**

5. Can a magnet ever have just one pole? Explain what happens to a magnet cut in two.

**No -** 

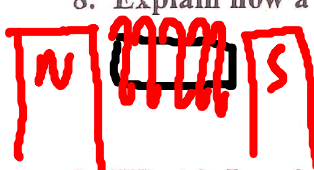
6. Each electron in a piece of iron is like a tiny magnet (domain theory), but the iron as a whole is not a magnet. Explain how this is possible.

**Domains cancel each other out, leaving no net magnetic field**

7. What is the Curie Point? Why will heating or dropping a magnet weaken it?

**A point at which a magnet or conductor loses its magnetic properties. unaligns domains.**

8. Explain how a motor or generator works in terms of electric and magnetic field interaction.

 **need electricity to create mag. field to spin motor** } **work to turn the magnet and create mag. field and force e- to flow through wires**

9. What is Lenz's Law? How does it demonstrate conservation of energy?

**An induced emf gives rise to a current whose mag. field opposes original mag. flux**

10. On the back of this sheet, draw the magnetic field (flux) lines for the 4 configurations shown. Be sure to draw the field lines drawing arrows showing direction of the field.

