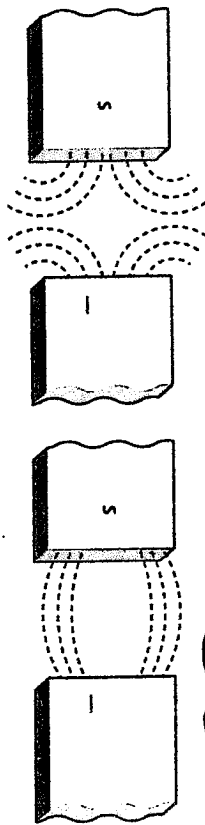


Directions: Complete the diagrams below as indicated and answer the questions.

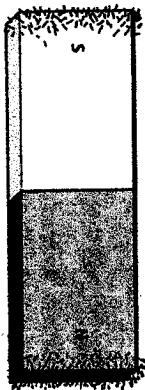
pp. 224-230



1. The lines in Figure 1 show magnetic forces acting between two pairs of bar magnets. Label the unlabeled poles of each magnet with N for north and S for south, between unlike poles.
2. What generalization can you make about the reaction between like poles? Between unlike poles?

3. On Figure 2, draw the lines of force around the bar magnet as they would appear if you sprinkled iron filings around the magnet.

Figure 2



4. Where are most of the iron filings located? Most spread out?
5. What can you infer about the strength of a magnetic field based upon the position of the iron filings?

pp. 224 - 230

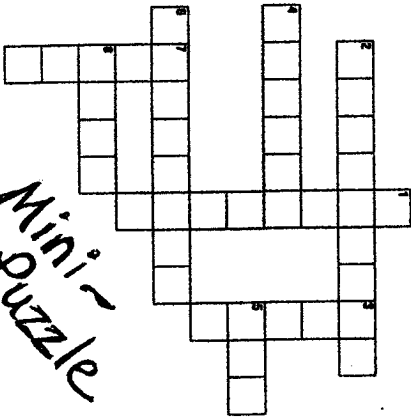
Across

2. Type of magnet that keeps its magnetic properties for a long time
4. Group of aligned atoms that behaves like a magnet
5. Number of poles of a horseshoe magnet
6. Type of magnetic poles that attract one another
8. Type of magnetic poles that repel one another

Down

1. Type of force that becomes stronger as two magnets are brought closer together
3. Direction a compass needle points
7. Parts of a magnet where the magnetic force is strongest

Mini-Puzzle



Name _____

Date _____

Class _____

Directed Reading for
Content Mastery

Key Terms
Magnetism and Its Uses

pp. 224-242

Directions: Match the term in the first column with the definition in the second column by writing the correct letter in the space provided.

- | | |
|------------------------------|--|
| 1. magnetic domain | a. temporary magnet made by placing a piece of iron inside a coil of wire that carries an electric current |
| 2. magnetism | b. device that changes electrical energy into mechanical energy, such as that used to turn an electric fan |
| 3. magnetic poles | c. places on a magnet where the magnetic force is the strongest |
| 4. galvanometer | d. device that increases or decreases the voltage of alternating current |
| 5. electric motor | e. device that uses an electromagnet to measure electric current |
| 6. electromagnet | f. device that produces electric current by rotating a coil of wire in a magnetic field |
| 7. direct current (DC) | g. group of atoms whose magnetic poles are aligned |
| 8. transformer | h. electric current that reverses direction regularly as it flows through a wire |
| 9. electromagnetic induction | i. properties of magnets and their interactions |
| 10. generator | j. process of producing an electric current in a loop of wire by either moving a magnet through the loop or moving the loop through a magnetic field |
| 11. alternating current (AC) | k. electric current that flows only in one direction through a wire |