

# Magnetism Post-Test (34 points)

*Use your study guide and notes to complete*

**Matching:** *match the word to the definition, write the letter on the blank (1 pt.)*

- |                        |   |
|------------------------|---|
| _____ 1. Compass       | a. The magnetized part of a compass   |
| _____ 2. Needle        | b. An object that attracts certain metals   |
| _____ 3. Magnet        | c. A current carrying coil of wire with many loops, wrapped around a magnetic rod |
| _____ 4. Electromagnet | d. A tool that uses a magnet to show direction                                    |

**Multiple Choice** – *choose the best answer or answers (1 pt. each correct answer)*

5. The space around a magnet where the force of the magnet can act.
- a. magnetic force
  - b. magnetic field
  - c. magnetic pole
  - d. magnetic area
6. If a compass is placed next to a flowing circuit, the needle will?
- a. spin like a top
  - b. cancels out the magnetic field
  - c. line up with the magnetic field of the wire
  - d. does nothing
7. This happens if you cut a magnet in half.
- a. it loses magnetism
  - b. it's atoms rearrange themselves
  - c. it becomes a stronger magnet
  - d. it becomes two magnets

8. One magnet lowered into a bucket of nails will pick up a chain of magnets because\_\_\_\_\_.

- a. each nail is temporarily magnetized
- b. the magnetic force carries through the chain
- c. the magnet is really strong
- d. the nails are metal so they are attracted to the magnet

**Short Answer** – *answer the following questions using complete sentences.*

*(2pts)*

- 9. Why does the needle of a compass always point North?
- 10. Describe what a magnetic pole is and give an example.
- 11. What are some uses for magnets (other than to hold things on the refrigerator)?
- 12. How are magnets used in hospitals?

**Draw and Label (4pts)**

- 13. Draw and label two magnets and their magnetic fields.
- 14. Draw and label an electromagnet.

15. **Categorize:** *Place the following objects into the correct category. (9pts)*

Iron                      Stereo Speakers                      Cobalt                      Car Motor  
Nickel                      Refrigerator                      Bar magnet                      Telephone  
Hair dryer

Electromagnet	Magnet