

Magnetism
Formative Assessment

Name _____
Date _____ Block _____

Answer completely in the space provided. You may do any work on the back.

1. The source of all magnetism is

moving electric charges

2. True or False: If you break a bar magnet in half, one half will be the north pole and the other half will be the south pole.

False; each half is a magnet with both a north and south pole

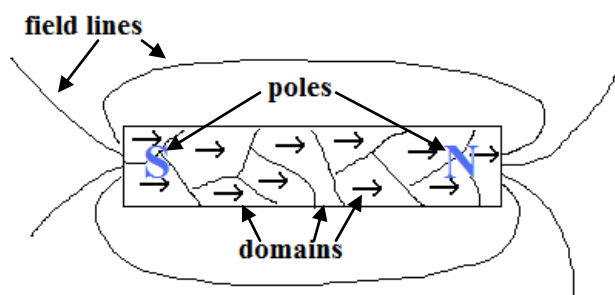
3. Seven paper clips dangle from the north pole of a magnet. Is the bottom of the last paper clip a north or a south pole?

north pole; the south end of the paper clip is attached to the north of the magnet, so the bottom end of the clip is a north pole. It does not matter how many clips there are, the pattern repeats.

4. What is a magnetic domain?

a region of magnetically aligned atoms

5. Sketch a bar magnet. Include and label: magnetic domains, magnetic poles, and magnetic field lines.



6. Where on a magnet is the magnetic force the strongest?

at the poles

7. The reason a magnet can attract an unmagnetized nail is that the nail becomes temporarily _____ in the magnet's magnetic field.

magnetized; the domains in the nail align with the magnetic field

8. What type of field acts in a circle around a current carrying wire?

magnetic field

9. In order to increase the strength of an electromagnet, you can _____ the number of loops of wire around the iron core.

increase

10. What three things do you need to make an electromagnet?

voltage source, wire, iron core

11. An electric _____ converts mechanical energy into electrical energy.

generator

12. A(n) _____ is used to reduce the voltage of the electricity coming into your home from the power lines.

transformer