



# knowledge quiz

## Magnetism

Name \_\_\_\_\_

1. Which is the best explanation of magnetic force?
  - A. Magnetism is a metal's gravity.
  - B. Magnetism is the attraction between like particles.
  - C. Magnetism is the force exerted by an electric current.
  - D. Magnetism is none of the above.
2. A bar magnet has two poles — a north pole and a south pole. If the bar was cut in half
  - A. each half would be either north or south.
  - B. each half would have its own north pole and south pole.
  - C. each half couldn't be attracted to the other half.
  - D. each half would lose its magnetism.
3. The lights of the Aurora Borealis result from
  - A. particles from the Sun hitting Earth's magnetosphere.
  - B. static electricity in the troposphere.
  - C. lightning storms taking place over the horizon.
  - D. rainbows that occur at night.
4. Which of these would increase the force of an electromagnet?
  - A. increasing the current being passed through the coil
  - B. reversing the flow of electricity through the coil
  - C. decreasing the number of windings in the coil
  - D. None of these increases the force of an electromagnet.
5. The Earth's magnetic North Pole changes location over time. What causes this?
  - A. changes deep in the Earth's core
  - B. the rotation of the Earth
  - C. the Moon revolving around the Earth
  - D. the Earth revolving around the Sun



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6. A compass reads the Earth's magnetic field. Does a compass function the same when south of the Earth's equator as when north of the equator?
  - A. No, it will point in the opposite direction.
  - B. Yes, it will always point to magnetic south.
  - C. Yes, it will always point to magnetic north.
  - D. None of these answers is correct.
  
7. When a magnet is subjected to heat, its magnetism will
  - A. decrease.
  - B. stay the same.
  - C. reverse polarity.
  - D. increase.
  
8. Lodestone has a valued property that has been used for centuries. What is it?
  - A. The stone is magnetic.
  - B. The stone floats.
  - C. The stone is very heavy.
  - D. The stone glows in the dark.
  
9. In which of these environments would a compass work normally?
  - A. in a lightning storm
  - B. in orbit around the Earth
  - C. at the magnetic north pole
  - D. underwater
  
10. Iron filings reveal this in the magnetic field surrounding a bar magnet.
  - A. the lines of the magnetic force
  - B. the polarity of the magnet
  - C. both 1 and 2
  - D. neither 1 nor 2