

## Worksheet - Intro to Magnetism

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1. Do magnets have to touch each other in order to experience a magnetic force? Explain.
  
2. Explain how a compass works
  
3. a. When you break a magnet in half, how many poles does each piece have? Explain.  
  
b. If you drop a small magnet repeatedly, it becomes demagnetized. Explain what is happening sub-atomically.
  
4. Why are iron atoms so strongly affected by magnetic fields?
  
5. Why does a very strong magnet attract both poles of a weak magnet?
  
6. A strong magnet in a junkyard can lift a car; what does this tell you about the relative strength of the magnetic and gravitational forces on the car?
  
7. Does the north pole of a magnet point to the north magnetic pole of the earth? Explain.