Scientific Method / Experimental Design

1. Question – what are we trying to answer by doing the experiment
2. Research – information we collect to design a good experiment
3. Hypothesis – an educated guess

   -***If*** I change _____, ***then*** _____ will happen.
4. Variables –

   -independent variable – what we change

   -dependent variable – what we measure/observe

   -control – what is kept the same for each set up
5. Materials – the stuff needed for the experiment
6. Procedure – step by step instructions
7. Data Collection – measuring, observing, surveying that can be done during the experiment
8. Data Representation – the making of graphs, charts, drawings, and tables
9. Conclusion – the answer to the question, what is learned from the experiment