The Scientific Method: An Overview

- **Identify a problem** you would like to solve.

- **Formulate a hypothesis**--A hypothesis is a scientist's best estimation, based on scientific knowledge and assumptions, of what the answer to the problem is. It must be specific and testable.

- **Test the hypothesis**--Design an experiment that proceeds to answer the specific problem.

- **Collect and analyze the data**--Record the data you collect from your experiment. If the data show evidence to support the hypothesis, then you accept the hypothesis. If the data show evidence that contradicts the hypothesis, then you reject the hypothesis. (note: Hypotheses can only be supported or rejected, never proven.)

- **Make conclusions**--At this point, you bring everything together. What does it all mean. You may identify a new problem or start all over again with the original problem. In either case, you will need to report your findings. This is where scientific writing becomes important.