



## Study Guide for Test on Introduction to Science Safety, The Scientific Method, Observations and Inferences and Measurement

- Be able to list the five steps of the Scientific Method
- Be able to identify the problem for an experiment
- Write a testable hypothesis (as an "If ..., then..." statement)
- Read and follow accurately the procedure for an experiment
- Analyze the data from an experiment and write a conclusion
- Read an experiment and be able to identify the independent variable
- Read an experiment and be able to identify the dependent variable
- Identify constants in the experiment
- Identify the trial which can be used as the "control"
- Define: observation and inference
- Be able to write an observation and inference
- Be able to identify safe lab techniques
- Identify and know the use for the following pieces of lab equipment: beaker, flask, test tube, test tube rack, stopwatch, meter stick, graduated cylinder, and triple beam balance
- Be able to summarize what happened in the following experiments that we conducted: Practicing Lab Safety, The Wet Blanket, Mini-Copters and Drop Print.

## Measurement

- Be able to measure length in cm and mm
- Be able to define length
- Know the instrument used to measure length
- Be able to define volume
- Be able to measure volume using  $L \times W \times H$
- Be able to measure volume using water displacement
- Know the units for volume
- Be able to measure mass and define it
- Know the instrument used to measure mass
- Be able to calculate density using the formula  $D = M/V$
- Be able to determine if something will sink or float based on its density