**SCIENCE** **Science Process Skills Outline** (9/20)

I. Scientifically testable questions

A. Questions we can answer by conducting scientific experiments (Will Brand X paint last longer than Brand Y?)

B. Based on data, not opinion “Should New Hampshire raise the speed limit to 70 mph? “ is opinion--not science.

II. Variables

A. Something changed in experiment
   1. Change only one at a time

B. Types
   1. Independent: does not rely on another variable.
      a. Example: Pendulum length

   2. Dependent: is affected by the independent variable.
      a. Example: Pendulum frequency

III. Controls

A. Something you keep the same throughout an experiment.
   1. Example: Pendulum weight if investigating length.

IV. Steps in experiment

A. **Prediction:** Educated guess based on what you know. Use If, then format. (***If*** a mask is worn, ***then*** fewer droplets will escape a person’s mouth.)

B. **Data Table:** Organized place to record data. (Independent variable usually in left column)

C. **Conclusion:** A statement explaining the results of experiment. Use when, then format. (When the mask was worn, then fewer bacteria grew on the plates.)

D. **Graph:** A more visual way of displaying data than a table.