**Name:**

**Unit/#:**

**NOS Study Guide**

**You will need to complete this study guide on your own sheet of paper. Anything not finished today is homework as we will review this tomorrow. Next to each question, rate your understanding on a 1-4 scale using the rubric Mrs. Murphy will provide for you.**

**Define the following in your own words:**

Independent Variable, Dependent Variable, Controlled Variable, Control Group, Experiment, Systematic Observation, Non-Science, Pseudoscience, Tentative, Hypothesis

**Experimental Design**

Design an experiment. Identify the independent and dependent variables. List at least three control variables.

Why are control variables important?

Why are control groups (groups that are not given the independent variable) important?

What does replicable mean? Why do you think experiments need to be replicable?

Is it bad to have an experiment turn out other than the way you expected? Explain.

**What is Science?**Is science creative? If yes, when are scientists creative? If no, why not?

What are some limits of science (what can science NOT do)?

Why can’t we “prove” in science?

What CAN science do?

What is the point of science?