Experimental Design Unit Objectives

* I will be able to ask testable questions about the nature of matter.
* I will be able to explain the purpose of experimental design and why it is important when planning and completing all experiments.
* I will be able to calculate slope and explain why slope is important.
* I will be able to share experimental data and respectfully discuss conflicting results.
* I will be able to explain the importance of the scientific method and why peer review is significant.
* I will be able to successfully peer review a scientific article.
* I will be able to recognize and describe the ethical traditions of science: value peer review, truthful reporting of methods and outcomes, making work public, and sharing a lens of professional skepticism when reviewing the work of others.
* I will be able to determine the validity of experiments by knowing the various parts of experimental design.
* I will be able to determine if evidence and research methodology were appropriate and sufficient enough to support claims made in scientific media.

\*\*Use this as a study guide to test yourselves on how much and how well you know these topics.

**Experimental Design and the Scientific Method**