

## Crucial Concentration

### Goal 1.0 Skills and Processes

- 1.4.4 *The student will determine the relationships between quantities and develop the mathematical model that describes these relationships. \**
- 1.1.5 The student will explain factors that produce biased data (incomplete data, using data inappropriately, conflicts of interest, etc.).
- 1.2.1 The student will identify meaningful, answerable scientific questions.
- 1.2.6 The student will identify appropriate methods for conducting an investigation (independent and dependent variables, proper controls, repeat trials, appropriate sample size, etc.).
- 1.2.8 The student will defend the need for verifiable data.
- 1.3.1 The student will develop and demonstrate skill in using lab and field equipment to perform investigative techniques<sup>NTB</sup>.
- 1.3.2 The student will recognize safe laboratory procedures.
- 1.3.3 The student will demonstrate safe handling of the chemicals and materials of science<sup>NTB</sup>.
- 1.3.4 The student will learn the use of new instruments and equipment by following instructions in a manual or from oral direction<sup>NTB</sup>.
- 1.4.1 The student will organize data appropriately using techniques such as tables, graphs, and webs. (for graphs: axes labeled with appropriate quantities, appropriate units on axes, axes labeled with appropriate intervals, independent and dependent variables on correct axes, appropriate title)
- 1.4.2 The student will analyze data to make predictions, decisions, or draw conclusions.
- 1.5.4 The student will use tables, graphs, and displays to support arguments and claims in both written and oral communication.
- 1.6.5 The student will judge the reasonableness of an answer.
- 1.7.5 Students will investigate career possibilities in the various areas of science.

### Goal 4.0 Concepts of Chemistry

- 4.1.2 *The student will gather and interpret data related to physical and chemical properties of matter such as density and percent composition. (constructing data tables, graphing linear relationship, appropriate technology to analyze data)*

\* Italicized CLG's are the primary focus of the laboratory activity.