### Grade 9 Distance Learning Module 1: Week of: March 30-April 3

# Content Area: Conceptual Physics - Unit 0: Science Method and Measurement

# **Targeted Goals from Stage 1: Desired Results**

**Content Knowledge:** Good experimental design leads to precise and accurate data.

Graphs are used by scientists to communicate information and to interpret the relationship between physical variables

**Vocabulary:** hypothesis, independent/manipulated variable, dependent/responding variable, control group, constants, qualitative observation, quantitative observation, mass, volume, density, centi-, milli-, kilo-, accuracy, precision

Skills: Analyze qualitative and quantitative data to interpret patterns, draw conclusions, and/or make predictions.

Use the scientific process to generate evidence that addresses the original questions.

#### **Expectation:**

| Description of Task (s):   | Resources and Materials:  | Daily Checks<br>(Return to Google Classroom or snapshots<br>from a cell phone) |
|--|---|--|
| Monday:<br>Students will be able to explain their guesses<br>for the Mystery Masses Activity   | Google Classroom Video Link that introduces<br>activity<br><u>Mystery Masses Activity</u> | Submitted Google form explanation for mystery masses                           |
| Tuesday:<br>Students will be able to explain the scientific<br>method and be able to identify the<br>manipulated (independent) variable and the<br>responding (dependent) variable in several<br>scientific scenarios. | Scientific Method Notes<br>Scientific Method Scenarios                                    | Submitted Scientific Method Scenarios in classroom                             |

| Description of Task (s):   | Resources and Materials:   | Daily Checks<br>(Return to Google Classroom or snapshots<br>from a cell phone)                |
|--|--|---|
| Wednesday:<br>Graphing review/identifying variables<br>Create a scientific graph using graphing rules                                      | How to draw a graph in science class<br>Graph paper (if needed)<br>Graphing Activity<br>ruler<br>colored pencils | Completed first two graphs/submit in<br>classroom with cell phone photo uploaded of<br>graph  |
| Thursday:<br>Students will be able to interpret graphing scenarios by identifying variables  | Variables and Graphing Practice<br>Question/Answer session via ZOOM  | Complete graphing activity and practice from yesterday. Submit w/cell phone or scanned upload |
| Friday:<br>Students will be able to demonstrate their current<br>understanding of science method and graphing by<br>completing a check-in. | Finish any unfinished work<br>Complete assessment/check-in   | Edulastic or Google Form assessment   |

Week criteria for success: Completed Activities with general success/participation

Score at least 75% on end of week assessment/check-in quiz

## Supportive resources and tutorials for the week

Relevant Textbook Chapter: Chapter 1 Physical Science Concepts in Action (posted in Classroom)

Check in via Google Hangouts/discuss/ video recordings

Unit 0: Scientific Method and Measurement Review Guide Unit 0 Review Guide