

## Office of Educator Effectiveness

# PHYSICAL SCIENCE SLO CASE STUDY EXAMPLE

- ☐ This SLO serves as the Professional Growth and Development Plan (Section I only)
- ☐ This SLO serves as **one** of multiple goals of the Professional Growth and Development Plan. (Section I and II)

### Section I. SLO

<b>Teacher Name:</b> Ms. Smith	<b>Teacher School:</b> <a href="#">Click here to enter text.</a>
<b>SLO Evaluator Name:</b> <a href="#">Click here to enter text.</a> <b>SLO Evaluator Position/Role:</b> <a href="#">Click here to enter text.</a>	
<b>Grade Level:</b> 9	<b>SLO Content Area:</b> Physical Science
<b>SLO Type:</b> <i>Choose One</i>  <input checked="" type="checkbox"/> Individual <i>(written by an individual teacher)</i> <input type="checkbox"/> Team <i>(team of teachers focus on a similar goal but are held accountable for only their students)</i>	<b>SLO Approach:</b> <i>Choose One</i>  <input checked="" type="checkbox"/> Class <i>(covers all of the students in one class period i.e., 2nd period Biology, 4th period Beginning Pottery, etc.)</i> <input type="checkbox"/> Course <i>(covers all of the students enrolled in multiple sections of the course (i.e., all of a teacher's Biology 2 students, all of a teacher's Beginning Pottery students, etc.)</i>
<b>SLO Interval of Instruction</b> <i>Choose One</i>  <input checked="" type="checkbox"/> Year <input type="checkbox"/> Semester <input type="checkbox"/> Other  If <i>Other</i> , provide rationale (i.e. quarter long course) and indicate days of instruction.  <b>Rationale:</b> <a href="#">Click here to enter text.</a> <b>Days of Instruction:</b> <a href="#">Click here to enter text.</a>	<b>Assessment Dates</b>  <b>Pre Assessment Date:</b> <a href="#">Click here to enter text.</a>  <b>Post Assessment Date:</b> <a href="#">Click here to enter text.</a>

## Office of Educator Effectiveness

### I. Student Population

Provide a detailed description of the student population. Information should include, but is not limited to, the following: the number of students in the class, a description of students with exceptionalities (e.g., learning disability, gifted and talented, English language learner [ELL] status, etc.), and a description of academic supports provided to students (e.g., extended time, resource time with EC teacher, any classroom supports that students receive to help them access the core curriculum).

- Thirty students total in the class. – 17 boys and 13 girls.
- (2) students with identified ELA/Math learning needs and supported with IEPs. – The necessary modifications and accommodations will be included.
- (2) students with identified gifted ELA needs.
- (2) students with ELL support – High levels of English language acquisition – See historical data spreadsheet.

### II. Historical and Trend Data

Describe the applicable past data for the students. In your description included the students' level of knowledge prior to instruction, including the source(s) of data (e.g., formative and summative assessments, anecdotal data gathered from collaboration with other educators) and reflect on the relevance to the overall course objectives.

I cross referenced the 30 student baseline scores with their Grade 8 MAP Science, EOC exams, and grade 8 ELA and Math data to make certain initial results mirrored past performance. Results of those assessments are attached in a separate spreadsheet.

### III. Baseline Data

Describe which pre-assessment(s) will be used to measure student learning and why the assessment is appropriate for measuring the objective(s). Provide baseline assessment results for the student population. Attach the assessment and grading scale and/or rubric used to score the assessment(s).

I administered the baseline assessment by asking students to write a lab report around an initial lab exercise. Students were given the lab report rubric so that they could address the required components within their report.

Students preformed at varying degrees related to 13 required skills (report attached). There was a common need in most of the students related to one of the indicators: Using graphs or charts to represent the lab data. This clear need in most of the students helped to narrow the focus of the SLO goal. While all indicators are important: this one skill will be the focus.

### IV. Post Assessment

Indicate what assessment will be used as a post assessment and how it is aligned to the baseline assessment.

As part of the introductory unit, students were introduced to the expectations creation and use of lab reports to document results. Students were given the lab report rubric, and each of the 13 indicators within the rubric was explained.

Students conducted a lab experiment -aligned to the content for unit one, chapter one of the text. Students wrote a report reflecting the experience. I graded the lab reports according to the rubric, and assessed each of the indicators. The students scored at varying degrees on the 13 indicators. I don't want to leave any of the indicators out of the assessment within the SLO.

## Office of Educator Effectiveness

### V. Progress Monitoring

How frequently will you progress monitor students' mastery of content? Indicate what ongoing sources of evidence you will collect in order to monitor student progress. (Other evidence of student growth can include student work samples, portfolios, etc.)

- Each unit has 2-3 laboratory experiences for students to engage in. Each will require a lab report. These will be used as formative, ongoing evidence to support the goal.
- I will summatively assess their lab report at mid semester, and again at end of the interval.
- I will review their daily warm ups to determine flexible grouping pre and post lab for direct instruction to the groups.
- Additional data will come from lab group observations, and discussion within class.

### VI. Learning Goal (Objective)

Provide a description of what students will be able to do at the end of the SLO Interval. The Learning Goal (objective) is based on and aligned with course- or grade-level content standards and curriculum. The goal should be broad enough to capture major content, but focused enough to be measurable.

Students will demonstrate at least one level of rubric improvement in their ability to represent science data using graphs and charts within their lab reports as measured using the Science Lab Report Rubric.

### VII. Standard (s)

Identify the content standard(s) and indicators that align to the SLO learning goal (objective).

S.1A.3: Plan and carry out investigations      S.1A.4: Analyze and interpret data  
S.1A.8: Obtain, evaluate and communicate information.

## Office of Educator Effectiveness

### VIII. Growth Targets

#### A. Choose One

- ☒ Tiered
- ☐ Individual
- ☐ Targeted (*Sub population(s) of students are the focus of the SLO goal. Appropriate for course approach as a second SLO when the first includes all students.*)

#### B. Considering all available data, identify the targets the students are expected to reach by the end of the SLO interval. List the growth target information below or on an attached spreadsheet.

- Students scoring *unsatisfactory* in the indicator will improve by at least two rubric levels. **(8 students)**
- Students scoring *nearing proficiency* in the indicator will improve by at least one rubric level. **(15 students)**
- Students scoring *at proficiency* will improve by at least one rubric level **(3 students)**
- Students scoring *above proficiency* scores on baseline will improve in their ability to add detail to lab reports to include: use of a variety of charts/graphs and expanded conclusion sections to include implications for findings **(2 students)**
- Students: Individualized goal with both modifications/accommodations for assessment related to ELA/Math identified needs. – see baseline data **(2 students)**. These students will be able to improve in their ability to select the appropriate graphical representation for their data set and integrate it into their lab graphic organizer. These growth goals will be measured through lab portfolios. See details in instructional strategies and differentiation section.

#### C. Provide a rationale for the growth targets. Rationale may reflect typical vs. pretest performance, may include reasoning for using individualized targets for some but not all students, or any other influencing information used to determine anticipated growth.

Physical Science students come to Grade 9 science with varying degrees of laboratory skills. It's important that basic lab reporting skills are developed and nurtured in the introductory course, as students will need to use the skills in future coursework. Two credits of science are required for graduation, so no matter the path, lab skills can be developed in all students to varying degrees. I am using the class approach to this SLO and will be including all of my students using a tiered approach- but focusing on one of the 13 indicators used to assess lab reports. Additionally, baseline assessment indicates all students have room to grow- at varying degrees in relation to this skill.

## Office of Educator Effectiveness

### IX. Instructional Strategies

A. Describe the best instructional practices you will use to teach this content to students. Include how instruction will be differentiated based on data. What interventions will be used if more assistance is needed during the learning progress?

- Technology used to support 2 students with significant learning needs-
- Use of graphic organizers to support lab report. Scaffold detail to minimize frustration.
- Collaborate in pre unit planning with Special Education resource teacher.
- Meet with and discuss extension activities for the students with advanced baseline and TAG ELA needs. (Good place to stretch ELA application within the content for students!)
- Flexible grouping for direct instruction with students 2X per unit- Pre lab and Post lab
- Daily Practice warm ups that reflect data analysis, communicating data analysis, and scientific methodology.

### X. Conference Reflection

#### A. Percentage of Students Who Met Growth Targets

\_\_\_\_\_ %

#### B. Reflection on Data

How does the data inform your instructional practice, goal setting, or your professional development for next year?

Conference	Date	Signatures
SLO Preliminary Conference		
SLO Mid-Course Conference		
SLO Summative Conference		