

## Physical Science SLO Case Study Example

<b>Teacher Name:</b>	Ms. Smith	
<b>School District/School Name:</b>		
<b>Principal/Evaluator:</b>		
<b>Content Area for SLO:</b>  Physical Science - Grade 9	<b>Type/Approach of SLO:</b>	
	<input checked="" type="checkbox"/> Individual <input type="checkbox"/> Course <input type="checkbox"/> Targeted <input type="checkbox"/> Team <input checked="" type="checkbox"/> Class <input checked="" type="checkbox"/> Tiered	
<b>Grade Level:</b>	<b>SLO Team Members (if applicable):</b>	
<b>School Year:</b>		
<b>SLO Objective Statement:</b>		
<p>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.</p>		
<b>Assessment Window Dates:</b>	<b>Pre-Assessment Date:</b>	<b>Post-Assessment Date:</b>
<b>SLO Interval of Instruction:</b>	<b>Beginning Instruction Date:</b>	<b>Ending Instruction Date:</b>

<p><b>I. Rationale:</b></p> <p>Provide a basis for the work to be accomplished. Why was this focus for an SLO selected? What background work has been done in this area? How does this target align with the school or district goals? What is the expected outcome? Is the objective broad enough to capture the major content, but focused enough to be measurable? Provide details related to the assessment analysis and how that relates to the student population identified within the SLO.</p>	<p>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.</p>
<p><b>II. Baseline and Trend Data:</b></p> <p>Describe the data used to identify assessment and growth targets. Explain how this data helped you identify the growth targets for your students.</p> <p>Baseline data: Information about students' level of performance prior to the start of the interval of instruction. How was the assessment done? When? Baseline data are used to establish SLO growth targets.</p>	<p>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.</p> <p>Students performed 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.</p> <p>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.</p>
<p><b>III. Growth Targets:</b></p> <p>The growth targets set for this SLO must be rigorous for all students; yet attainable. Connect the baseline data that you collected at the beginning of the learning interval to your target data. Be sure to tier your growth targets so that you are able to demonstrate growth for students that perform at various levels. Considering all available data with baseline and trend data, what targets are you expecting your students to reach based upon their starting points? Explain how these targets were determined.</p>	<ul style="list-style-type: none"> <li>• Students scoring <i>unsatisfactory</i> in the indicator will improve by at least two rubric levels. <b>(8 students)</b></li> <li>• Students scoring <i>nearing proficiency</i> in the indicator will improve by at least one rubric level. <b>(15 students)</b></li> <li>• Students scoring <i>at proficiency</i> will improve by at least one rubric level <b>(3 students)</b></li> <li>• Students: scoring <i>above proficiency</i> 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 <b>(2 students)</b></li> <li>• Students: Individualized goal with both modifications/accommodations for assessment related to ELA/Math identified needs. – see baseline data <b>(2 students)</b>. 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.</li> </ul>

<p><b>IV. Student Population:</b></p> <p>Provide an in-depth description of the student population included in the SLO. At least 6 students are to be involved in an SLO. Describe any exceptionalities and special needs of this student group.</p>	<p>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.</p>
<p><b>V. Standards/Content and Interval of Instruction:</b></p> <p>Describe the content and content standards that are addressed by the SLO. Refer to the state content area standards to complete this section. Provide a data-driven explanation for the focus of the SLO. Also, describe the instructional period for this SLO.</p>	<p>S.1A.3: Plan and carry out investigations  S.1A.4: Analyze and interpret data  S.1A.8: Obtain, evaluate and communicate information.</p>
<p><b>VI. Assessment (Pre- and Post-) and Scoring:</b></p> <p>Describe the assessments (pre and post) that will be used to determine student growth. How do they measure the identified content/skills of the SLO? How will they be administered, and by whom? Include information on how the assessment(s) will be scored. Assessments reviewed and discussed by a school team will verify the appropriateness of the instrument. It is suggested that two or three measures be used to determine outcomes when possible. Consider state, district, school and individual teacher-made assessments. Will these assessment be tied to grades, and if so, how?</p>	<p>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.</p> <p>Students conducted a lab experiment -aligned to the content for unit one, chapter one of the text.</p> <p>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.</p>
<p><b>VII. Instructional Strategies:</b></p> <p>Describe the best instructional practices and/or grouping strategies that you will use to teach this content to students. How will instruction be differentiated based on data? Have teachers in appropriate grades/subjects linked their SLOs? What interventions will be used if more assistance is needed during the learning process?</p>	<ul style="list-style-type: none"> <li>• Technology used to support 2 students with significant learning needs-</li> <li>• Use of graphic organizers to support lab report. Scaffold detail to minimize frustration.</li> <li>• Collaborate in pre unit planning with Special Education resource teacher.</li> <li>• 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!)</li> <li>• Flexible grouping for direct instruction with students 2X per unit- Pre lab and Post lab</li> <li>• Daily Practice warm ups that reflect data analysis, communicating data analysis, and scientific methodology.</li> </ul>

<p><b>VIII. Progress Monitoring:</b></p> <p>How frequently will you progress monitor students' mastery of standards taught? How and with what instruments will you assess students to measure their progress over time towards the learning goal? What will you do if students do not show adequate progress towards the learning goal? Who will be sharing and discussing the results of this data collection during the instructional period?</p>	<p>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.</p> <p>I will summatively assess their lab report at mid semester, and again at end of the interval.</p> <p>I will review their daily warm ups to determine flexible grouping pre and post lab for direct instruction to the groups.</p> <p>Additional data will come from lab group observations, and discussion within class.</p>
<p><b>IX. Teacher Professional Growth and Development Plan and Action Research:</b> (S.C. Code Ann. Section 59-26-30)</p> <p>Describe the learning that the teacher will complete in order to successfully complete the plan. How will this learning occur? Will this be compiled as action research to add to the profession? What reading and reflection will be done during the SLO process? What teaching skills and techniques will be improved through the project?</p>	<p>Over the course of this year, I will attend a professional development workshop on flexible grouping. One is being offered through SCASCD in November. This will allow me to determine quick and easy formative assessment strategies in order to group students in “job-alike” groups for direct instruction.</p> <p>Additionally, my ongoing collaborative meetings with the special education strategist will allow for improved use of adaptive technology for students needing additional supports.</p> <p>I will need to rely on universal design strategies in the planning of units, in order to engage all of my students in meaningful ways. To do that I will take part in the building book study around Universal Design “Universal Design for the Classroom (Hall, Meyer, and Rose).</p>

<b>Conference</b>	<b>Date</b>	<b>Signatures</b>
SLO Preliminary Conference		
SLO Mid-Course Conference		
SLO Summative Conference		