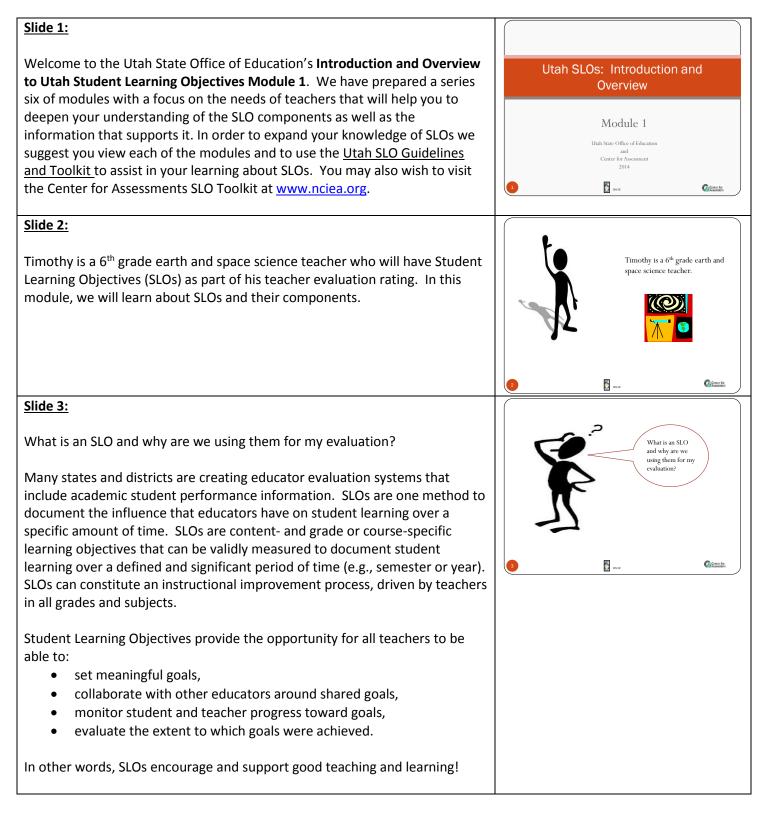
Utah SLOs: Introduction and Overview

Module 1



Slide 4: Student Learning Objectives Student Learning Objectives consists of three components: a learning goal, consists of three components: assessment(s), and targets. The learning goal is a description of what students will be able to do at the end of the course or grade. It is based on one or more of the overarching or big ideas that are central to a discipline or course and have lasting value beyond the classroom. 0 Timothy will want to think about SMART goals as he develops these learning goals. SMART is an acronym for goals that are Specific, Measureable, Attainable, Relevant, and Time bound. Slide 5: As Timothy begins to write a SMART Learning Goal, he thinks about the "big Big Idea: Solid, liquid and gaseous earth idea" that will support it. materials all circulate in large scale systems at a variety of time scales, giving rise to landscapes, He knows that a "big idea" is one that will link his units and lessons to focus the rock cycle, ocean currents, weather, and climate. his daily instruction for his students and help them to understand "why does this learning matter". He considers: "Solid, liquid and gaseous earth materials all circulate in large Co Center for tusi scale systems at a variety of time scales, giving rise to landscapes, the rock cycle, ocean currents, weather, and climate" as the overarching concept that integrates many science standards from his curriculum. Slide 6: Timothy knows that for students to truly understand this concept, they will Strategic thinking · Interpreting information from a graph need to apply strategic thinking including interpreting information from a · Justifying responses, graph, justifying responses, citing evidence and developing a logical argument Citing evidence · Developing a logical argument for for concepts, and forming conclusions from experimental or observational concepts data. · Forming conclusions from experimental or observational data. 🚺 usor Co Center Re

Slide 7:

Based on the development of his preliminary information, Timothy is able to develop a meaningful Learning Goal for his course; one that is taught and assessed throughout the year:

Students will carry out scientific investigations of a testable hypothesis (using Earth and Space Science content standards) based on observations and questions. <u>They</u> will design and conduct controlled experiments to test their hypothesis; then communicate significant components of their experimental design and results including the link between evidence and conclusion.

(See the module on Depth of Knowledge for more information.)





<u>Slide 8:</u>

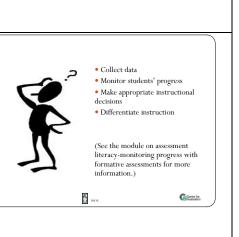
It was important for Timothy to develop his Learning Goal prior to determining his assessments. Assessments should be used to support and measure the Learning Goal, not vice versa. As Timothy considers possible assessments, he knows that they need to be standards-based measures of student knowledge and skills that are aligned to his Learning Goal. There are a number of assessment options for him to consider, including performancebased, projects, and district-level assessments. The implementation of these types of assessments will also require the development and use of rubrics.

(See the module on selecting high quality assessments for more information.)

Slide 9:

Since Timothy's class is a year-long course, he wants to be sure that he collects data throughout the year to monitor his students' progress and to make appropriate instructional decisions that will allow for differentiated instruction. Timothy is planning to collect formative science investigations from his students at least three times during the year to be sure that students are prepared for the summative investigation in which they have to independent put all the pieces together.

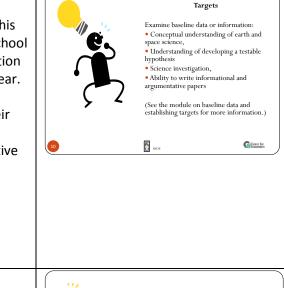
(See the module on assessment literacy-monitoring progress with formative assessments for more information.)



Slide 10:

Finally, Timothy needs to contextualize the SLO for his classes. He does this by identifying the expected outcome for his students by the end of the school year. In order to set targets, Timothy examines baseline data or information about his students' level of performance at the beginning of the school year. There are several things that Timothy wants to know about his students, including their conceptual understanding of earth and space science, their understanding of developing a testable hypothesis and a science investigation, as well as their ability to write information and argumentative papers.

(See the module on baseline data and establishing targets for more information.)



Expected Targets

Cogener for

Ambitious, but realistic

 Outcome by the end of the instructional period

<u>Slide 11:</u>

As Timothy considers the expected targets for his students, he wants to be ambitious, but realistic. He knows from past teaching experience that he can move just about all of his students at least one level and those that are very close to demonstrating proficiency of the pre-requisite skills, he is confident that he can help them move up to the high level. Based on this knowledge, Timothy sets his expected targets for measuring his students' understanding of the Learning Goal.

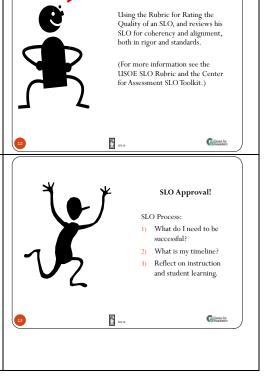
Slide 12:

Before Timothy submits his SLO to his administrator for approval, he refers to the Rubric for Rating the Quality of an SLO, and reviews his SLO for coherency and alignment, both in rigor and standards.

(For more information see the USOE SLO Rubric and the Center for Assessment SLO Toolkit.)

Slide 13:

When Timothy meets with his administrator, he receives approval on the SLO, affirming that each aspect of the SLO is of an acceptable quality. Together, they review the SLO process which began with the development of the learning goal, identification of assessments, and setting targets for his students. Timothy's administrator next asks him to identify his goals for the year to ensure that his students are successful. Timothy shares that he will want to collaborate with other science teachers at his school and in the district in order to score and analyze student work, as well as seek out additional training on developing high quality science investigations. There are two last steps of the SLO process. Timothy will want to create a timeline



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