

Student Learning Objective (SLO) Template

This template should be completed while referring to the SLO Template Checklist.

Teacher Name: _____ Content Area and Course(s): Science Grade Level(s): 6 Academic Year: _____

Please use the guidance provided in addition to this template to develop components of the student learning objective and populate each component in the space below.

Baseline and Trend Data

What information is being used to inform the creation of the SLO and establish the amount of growth that should take place?

I have used last year's O.A.A. 5th Grade Science scores, and this year's pre-test results to gather needed information. I have administered a pre assessment and will administer a post-assessment later in the year. I will also use unit tests given to provide data. The pre-assessment and post-assessment will be comprised of multiple choice and extended response questions related to the 6th grade Science Content Standards as developed by the Ohio Department of Education. These assessments are district developed in collaboration with grades 5-8 science teachers. Data will be collected and recorded. I have set target scores for all students and will work on achieving the target scores (see attached information labeled SLO Baseline and Trend Data - Mr. Szalay - 1st, 2nd, 3rd, 7th and 8th periods.) Only three students achieved a score of 75 - 77% so there is room for growth. When analyzing the data for Earth and Space Science, the scores indicate a strength based on the fact that 106 out of 127 students scored in the 51% to 100% range, however there is definite room for stretch. Life Science indicates a strength based on the facts that no students scored in the 0-25% range, and 44 students scored in the 101% or higher range. Physical Science results indicate a weakness based on the fact that 12 students scored in the 0-25% range and 37 students scored in the 26-50% range. Scientific Procedure (SP) shows an area of weakness based on the fact that 18 students scored in the 0-25% range and 37 students scored in the 26-50% range. (see attached - Fifth Grade O.A.A. Science Scores - Breakdown by Areas). Baseline data indicates:

___22___ students in 0-25% range
 ___61___ students in the 26-50% range
 ___43___ students in the 51-75% range
 ___1___ students 76% and above range

Student Population

Which students will be included in this SLO? Include course, grade level, and number of students.

This SLO covers ___127___ 6th grade science students. There are ___11___ students on Individual Education Plans and students ___7___ on 504 plans. Other

than IEP's and 504 plans I do not have any subgroups that are excluded from the SLO. The students who have an IEP or a 504 plan will have instructional and assessment accommodations and modifications provided. I do not have an intervention specialist in my room, however these students do take work to Miss Maeker and are allowed accommodations when needed. There are 4 students who receive speech services. Of the 11 students identified with disabilities 8 students have SLD (specific learning disabilities). Of the 11 students identified with disabilities, 2 students have Other Health Impairments (OHI).

Interval of Instruction

What is the duration of the course that the SLO will cover? Include beginning and end dates.

The duration of the course is August 2013 through May 2014. Each class meets daily for 47 minutes.

Standards and Content

What content will the SLO target? To what related standards is the SLO aligned?

I have copied the standards and content presented on the ODE website. These standards are called the Ohio Extended Standards. They are the current learning standards for sixth grade in the state of Ohio. These are the New Learning State Standards from the ODE website. The title listed is Grades K-8 Science Revised Standards (revised in April 2013). I attempted to add all Content Statements to Physical Science, however I was not able to extend the template without entering the next section. I will attach the Physical Science content statements at the end of the template following the Rationale for Growth Target (see below). The skills and core knowledge are found in the content statements and found below. The big ideas and domains are listed as well.

Scientific Inquiry and Application

- Investigations
- Lab Tools and Safety
- Organizing, Analyzing, and Communicating Data

Earth & Space Science

- Minerals
- Rocks
- Soil

ESS Content Statements

Minerals have specific, quantifiable properties

Igneous, metamorphic and sedimentary rocks have unique characteristics that can be used for identification and/or classification.

Igneous, metamorphic and sedimentary rocks form in different ways

Soil is unconsolidated material that contains nutrient matter and weathered rock

Rocks, minerals and soils have common and practical uses

ESS Academic Content Standards - Extended Science

ESS.68.1a Sort minerals by properties (e.g., color, density, luster)

ESS.68.2a Classify igneous, metamorphic and sedimentary rocks

ESS.68.3a Identify how each rock type is formed (pressure, erosion, cooling, melting, compaction, cementation, heat and /or weathering

ESS.68.1b Identify an object as a mineral or a rock

ESS.68.2b Identify the properties of igneous (e.g., granite, basalt), metamorphic (e.g., marble, quartzite), or sedimentary (e.g., limestone, sandstone) rocks

ESS.68.3b Identify components of the rock cycle

ESS.68.1c Identify a common rock-forming mineral

Life Science

- Cell Theory & Structure
- Cell Processes
- Reproduction in cells and organisms
- Organization in organisms

LS Content Statements

Cells are the fundamental unit of life

All cells come from pre-existing cells

Cells carry on specific functions that sustain life

Living systems at all levels of organization demonstrate that complementary nature of structure and function

LS Academic Content Standards - Extended Science

LS.68.1a Explain how cells are organized to form multicellular organisms (cells make up tissues such as muscles)

LS.68.2a Compare plant and animal cells

LS.68.3a Recognize that each type of cell has a distinct structure and function

LS.68.1b Recognize that cells can reproduce or divide

LS.68.2b Identify a plant and an animal cell
 LS.68.3b Identify various organelles in a cell
 LS.68.1c Recognize that living things are made of cells
 LS.68.2c Identify a plant cell
 LS.68.3c Identify an organelle in a cell

Physical Science

- Classification & Properties of Matter
- States of Matter, Energy, and Properties
- Object Motion

Assessment(s)

What assessment(s) will be used to measure student growth for this SLO?

Student growth will be measured by comparing SLO pre and post assessments created by content area specialists. The assessments will include multiple choice and extended response questions modeling the actual O.A.A. for science. Multiple choice and extended response will constitute 100% of the final score. There are 33 multiple choice questions and two (4point) extended response questions and two (2 point) short answer questions. The rubric used for the extended response are found in Marzano's , "The Art and Science of Teaching". The rubric is found on page 21, Figure 1.10- Complete Scale. I have attached a copy of the rubric. The students who have an IEP or a 504 will have testing accomodations as outlined in their IEP or 504. Methods such as extended time, test read to students, scribing, and possibly a shortened version of the test will be applied as required. The scores allow for sufficient stretch as only one student scored at 76% or above.

Growth Target(s)

Considering all available data and content requirements, what growth target(s) can students be expected to reach?

Baseline Score Range:

__22__ students in 0-25% range
 __63__ students in 26-50% range
 __41__ students in 51-75% range
 __1__ students 76% or above

Target Score Range

minimum 60%
 minimum 75%
 minimum 80%
 85% and up

All the students under the SLO have growth targets (see attached form labeled SLO Baseline and Trend Data). I have listed all students' baseline scores on the pre assessment and their individual target scores. I have also included a Baseline Score Range that I learned at a SLO seminar in the spring (see

attached spreadsheet).

The formula is as follows: $x/100$ X =Baseline Score (Student Score Earned)

$100-X=Y$ Y =Difference

$Y/2=z$ Z =Target

$X+Z$ = Target Growth Rate

Example: Student earns 75 out of 100 on Pre-test (%)

$100-75=25$ raw score

$25/2=12.5$ target score

$75 + 12.5 = 87.5$

87.5 is the Target Growth form the original 75 points earned.

Rationale for Growth Target(s)

What is your rationale for setting the above target(s) for student growth within the interval of instruction?

Tiered targets help to ensure that all students will be able to demonstrate developmentally appropriate growth. Students who scored lower on the pre-assessment will be expected to show more growth on the post assessment to promote reducing achievement gaps. These targets align with the district goals for meeting Science Education Standards approved by the State Board of Education. I used last year's O.A.A. scores and my pre-assessment to identify student needs. The SLO addresses the student needs based on prior results and the standards covered this year. It is important that the students master the content in order to pass the next Science O.A.A. test given in 8th grade and to keep progressing in the area of science. The targets are rigorous showing that most students have targeted a 37% increase. The data analyzed provided the student needs and determined appropriate growth targets to reach achievement goals.