TEACHER SLG GOAL SETTING EXAMPLE – HIGH SCHOOL CHEMISTRY

Grade Level: **Elementary** **Middle School** **High School**
Goal Type: **Individual Goal** **Team Goal**

SLG GOAL 1		
Goal-Setting Conference	**Content Standards/Skills**	Describe the composition, structure, and properties of matter, draw conclusions about the interactions and conservation of matter and energy, and explain why matter and energy can neither be created nor destroyed in a given system and/or reaction. Related Oregon 2014 Science standards (NGSS): HS-PS1-4, HS-PS1-7, HS-PS3-1, HS-PS3-4
	Assessments	**Category 2** **1. Unit Tests:** Students will complete a written assessment at the end of each unit. Assessments will include multiple choice, short answer, and constructed response items. There are five units in total: Atoms, Molecules and Ions, Chemical Reactions, Calculations with Chemical Formulas and Equations, Ionic and Covalent Bonding, and Solutions. The unit assessments were created in collaboration with members of the Science Department and approved by the Science Department Chairperson. **2. Hydrated Salt Performance Task:** Students develop procedures for an investigation and plan for recording and organizing observations and data. It requires students to draw upon their understanding of the crystalline structure of ionic salt, the application of conservation of matter to calculate the coefficient of H2O in the empirical formula of the hydrated salt, and making conclusions consistent with the use of chemical equations to predict quantitatively the molar masses of reactants and products in 3 chemical reactions. This task will be assessed using the Oregon Scientific Inquiry Scoring Guide.
	Context/Students	This objective applies to the 71 students in my three sections of College Prep Chemistry. 53 of my students are boys and 18 are girls. This is a year-long course that meets for 50 minutes daily.
	Baseline Data	In order to gauge students' incoming content knowledge, I administered the **Chemical Concepts Inventory** during the first week of school. It is a multiple choice instrument composed of one- and two-tiered non-mathematical conceptual questions based on common student misconceptions about general chemistry topics (ex. Does the rust from a completely rusted iron nail eight more, less, or the same as the nail it came from?). I adapted the inventory from one that was created for first year college students, so I expected student scores to be quite low. Not surprisingly, the average across my three sections of CP Chemistry was 36%. From these results I was able to determine that most students are coming into this course with limited knowledge

		of concepts central to chemistry as well as some misconceptions about properties of matter, behavior of atoms and molecules, etc. However, I did find that 9 students scored significantly higher than their peers (scores of 60% or better) and that 12 students scored significantly lower than their peers (scores of 10% or lower). Based on this, I have created three groups: Group A = students who scored <10% on chemistry inventory Group B = students who scored between 11% and 49% on chemistry inventory Group C = students who scored > 50% on chemistry inventory
	Student Growth Goal (Targets)	**1) Unit tests:** a. Group A = students will pass 4 out of 5 unit tests with a score of 65% or better. b. Group B = students will pass 4 out of 5 unit tests with a score of 75% or better. c. Group C = students will pass 4 out of 5 unit tests with a score of 85% or better. **2) Performance task:** a. Group A = students will demonstrate basic proficiency (a score of 3 or better) b. Group B = students will demonstrate proficiency (a score of 4 or better) c. Group C = students will demonstrate advanced understanding (a score of 5 or better)
	Rationale	Chemistry is the study of matter and its composition, structure, and properties. Understanding that matter makes up all substances both living and non-living, how matter interacts, and the concept of conservation of matter are central to this course. These enduring understandings are a bridge between the physical sciences, life science, and earth and space science. This is a worthy focus because it encompasses the key understandings that students should have by the end of this course.
	Strategies	• Repeated practice with using and developing models based on evidence to illustrate interactions of energy and matter • Repeated practice planning and conducting investigations individually and collaboratively to produce data to serve as the basis for evidence • Familiarize student with state scoring guide using the student friendly language version for in-class tasks • Have students self-assess using the scoring guide
	Professional Learning and Support	• Professional learning in student use of models • Professional learning to develop deep understanding of the NGSS practices and crosscutting concepts • Classroom time and budget to implement authentic activities