



Honors Chemistry

The following learning targets represent the major concepts studied and assessed in this course.

Semester 1:

Unit 1: Introduction to Chemistry

- Learn the different branches.
- Use science and engineering design to design an investigation that centers on solving a real world problem.

Unit 2: Matter and Change

- Distinguish between chemical and physical changes.
- Classify matter into different categories based on their properties.

Unit 3: Scientific Measurement

- Accurately use scientific measurement and dimensional analysis to solve everyday problems and report the results with the correct degree of accuracy.

Unit 4: Atomic Structure

- Understand the structure of the nuclear atom so I can determine the architecture of an undiscovered element.

Unit 5: Electrons in Atoms

- Determine the electron structure of an undiscovered element.

Unit 6: Periodic Table

- Determine the properties of an element based on its position on the periodic table.

Unit 7: Bonding

- Engineer or design a compound; determining its molecules bond, model its structure, and predict its properties.

Semester 2:

Unit 8: Chemical Names and Formulas

- Predict the formulas of previously unknown compounds.
- Name compounds based on their chemical formulas.

Unit 9: Chemical Equations and Chemical Reactions

- Balance chemical equations.
- Predict the outcomes of chemical reactions
- Identify the different types of chemical reactions based on their products and reactions

Unit 10: Chemical Quantities

- Determine the types of atoms and the ratio of each in a compound in order to accurately identify the chemical formula.

Unit 11: Stoichiometry

- Design an experiment to yield the desired amount of product.