**Major Topics**

* Lab Safety
  + Rules
  + Actions
* General
  + Six types of chemistry
  + Chemical and Physical Properties
  + Different states of matter
  + Mass/Volume/Density
* Atoms and Elements
  + Atomic Structure
  + Protons, Neutrons, Electrons
  + Types of elements
  + History of development
* Periodic Table
  + Identify sub-groups
  + Groups and periods
  + Relationships
  + History of development
* Types of Electron Configuration
  + Write Notations
    - Electron Notation
    - Noble Gas Notation
  + Identify elements using notations
* Types of bonds
  + Molecular v. Ionic Compounds
  + Behavior of electrons
  + Reading names of bonds
* Valence electrons
  + Purpose
  + Writing dot notation
* Drawing Lewis Structure
* Chemical Formulas
  + Name to formula
  + Formula to name
  + Latin Prefixes
  + Covalent v. Ionic Naming
  + Transition Elements
  + Using charges to write formulas
  + Subscripts, superscripts
* Nomenclature
  + Common polyatomic ions
  + Naming of different elements
* Acids
  + Naming
  + Writing formulas
* Chemical reactions
  + Predict reactions
  + Endothermic v. exothermic reactions
  + Balancing chemical reactions
* Molar Mass
  + Monatomic Elements
  + Compounds
  + Use as a conversion
* Percentage Composition
* Identifying limiting and excess reactants
  + Use molar mass to convert
  + Use molar ratio
* Determining percent yield
* Molarity and dilution

**Terms:**

Accuracy

Actinide

Alkali Metals

Alkaline Earth Metals

Analytical chemistry

Anion

Atomic Mass

Atomic Number

Atoms

Binary Compounds

Biochemistry

Cation

Chemical Bond

Chemistry

Conservation of Mass

Covalent Bond

Density

Dilution

Electron Notation

Electrons

Elements

Endothermic Reaction

Excess Reactant

Exothermic Reaction

Extensive property

Formula Mass

Formula Unit

Gas

Groups

Halogens

Heterogeneous Mixture

Homogeneous Mixture

Inorganic chemistry

Intensive property

Ion

Ionic Bond

Lanthanide

Latin Prefixes

Liquid

Limiting Reactant

Mass

Metallic Bond

Metalloid

Molar Mass

Molar Ratio

Molarity

Molecular Mass

Monatomic Ion

Noble Gas Notation

Noble gases

Nucleus

Orbital Notation

Organic chemistry

Percent Error

Percentage Composition

Percent Yield

Period

Physical change

Physical chemistry

Physical property

Polyatomic Ion

Polyatomic Ion

Precision

Product

Protons

Pure Substance

Reactant

Roman Numerals

SI Units

Solid

Subscripts

Superscripts

Ternary Compounds

Theoretical chemistry

Transition Elements

Valence Electrons

Volume