**2020-2021 Weekly Calendar for Chemistry At Home**

***Short Weeks Are In Red***

**First Six Weeks**

**Week 1, August 12th-14th**

The Scientific Process

* The Nature of Chemistry

**Week 2, August 17th-21st**

The Scientific Process

* Scientific Methods
* Hypotheses, Laws, and Theories

**Week 3, August 24th -28th**

The Scientific Process

* Tools, Technology, and Measurement
* Safety in Science

**Week 4, August 31st –September 4th**

The Scientific Process

* Using Math to Analyze Data
* Evaluating Scientific Explanations
* Unit Test

**Week 5, September 8th- 11th**

Understanding the Atom

* The Historical Development of Atomic Theory
* Electromagnetic Waves

**Week 6, September 14th- 18th**

Understanding the Atom

* The Modern Atomic Theory
* The Structure of the Atom
* Unit Test

**Second Six Weeks**

**Week 1, September 21st -25th**

Elements and the Periodic Table

* Elements, Compounds, and Mixtures
* Atomic Numbers and Electron Configurations
* The History and Arrangement of the Periodic Table

**Week 2, September 28th –October 2nd**

Electrons and the Periodic Table

* Electrons and the Periodic Table
* Periodic Trends
* Unit Test

**Week 3, October 5th -9th**

States and Changes of Matter

* Gases
* Liquids

**Week 4, October 13th -16th**

States and Changes of Matter

* Solids and Plasmas
* Phase Changes

**Week 5, October 19th – 23rd**

States and Changes of Matter

* Properties of Water
* Changes in Matter

**Week 6, October 26th – 30th**

States and Changes of Matter

* Lab: Physical and Chemical Changes
* Unit Test

**Third Six Weeks**

**Week 1, November 2nd -6th**

Chemical Bonding

* Ionic Bonding
* Covalent Bonding

**Week 2, November 9th – 13th**

Chemical Bonding

* Lab: Ionic and Covalent Bonds
* Metallic Bonding
* Nomenclature of Ionic Compounds

**Week 3, November 16th – 20th**

Chemical Bonding

* Nomenclature of Covalent Compounds
* Molecular Geometry
* Unit Test

**Week 4, November 30th – December 4th**

Chemical Reactions

* Writing and Balancing Chemical Equations
* Percent Composition and Molecular Formula
* Types of Reactions

**Week 5, December 7th – 11th**

Chemical Reactions

* Lab: Types of Reactions
* Oxidation-Reduction
* Unit Test

**Week 6, December 14th – 18th**

Cumulative Exam 1

**Fourth Six Weeks**

**Week 1, January 5th – 8th**

Stoichiometry

* Molar Masses
* Introduction to Stoichiometry

**Week 2, January 11th – 14th**

Stoichiometry

* Stoichiometric Calculations

**Week 3, January 19th -22nd**

Stoichiometry

* Limiting Reactant and Percent Yield

**Week 4, January 25th -29th**

Stoichiometry

* Lab: Limiting Reactant and Percent Yield
* Unit Test

**Week 5, February 1st -5th**

Thermodynamics

* Energy
* Heat

**Week 6, February 8th -12th**

Thermodynamics

* Calorimetry
* Lab: Calorimetry and Specific Heat

**Week 7, February 16th – 19th**

Thermodynamics

* Thermochemical Equations
* Unit Test

**Fifth Six Weeks**

**Week 1, February 22nd – 26th**

The Gas Laws

* Gas Laws

**Week 2, March 1st – 5th**

The Gas Laws

* Lab: Charles’s Law
* Lab: Boyle’s Law

**Week 3, March 8th -11th**

The Gas Laws

* The Ideal Gas Law

**Week 4, March 22nd – 26th**

The Gas Laws

* Gas Stoichiometry
* Unit Test

**Week 5, March 29th – April 1st**

Solutions and Solubility

* Reactions in Aqueous Solutions

**Week 6, April 5th – 9th**

Solutions and Solubility

* Solutions and Solubility
* Lab: Solubility

**Week 7, April 13th – 16th**

Solutions and Solubility

* Measures of Concentration: Molarity
* Unit Test

**Sixth Six Weeks**

**Week 1, April 19th -23rd**

Acids and Bases

* Properties of Acids and Bases
* Arrhenius, Bronsted-Lowry, and Lewis Acids and Bases

**Week 2, April 26th -30th**

Acids and Bases

* pH
* Lab: Measuring pH

**Week 3, May 3rd -7th**

Acids and Bases

* Equilibria of Acids and Bases
* Neutralization Reactions
* Unit Test

**Week 4, May 10th – 14th**

Nuclear Chemistry

* The Nucleus
* Types of Radioactive Decay
* Balancing Nuclear Reactions

**Week 5, May 17th -21st**

Nuclear Chemistry

* Nuclear Fission and Nuclear Fusion
* Unit Test

**Week 6, May 24th -26th**

Cumulative Exam 2