

## AP Chemistry – Summer Assignment 2016

**Note: This is a required assignment. This is NOT extra credit. It will be collected August 21, 2017**

Check out a Textbook, Chemistry 4<sup>th</sup> edition by Tro from the AP Chemistry teacher and the library **before you leave Live Oak for the summer**. You will need to provide your email address when you check out your textbook.

You will need to know the concepts in chapters 1—4 in Chemistry. These chapters are primarily a review of selected topics from CP Chemistry and are essential background to advanced topics to be covered in AP chemistry. Very little time will be spent in class reviewing this material.

Read the sections in the textbook. Watch the segments in Khan Academy indicated below for each chapter. Then complete the exercises assigned for each chapter below.

Practice active reading. Reread if necessary. Pay attention to the figures and captions so you understand the concepts they illustrate. Follow the examples given.

Answers to problems numbered in blue are given in the back of the textbook. Use these to check yourself, but do not use them to get the problem answers until you have made an honest effort to answer them from the chapter first. Remember, your goal is to master this material. **Do not cheat yourself.**

**Instructions to log onto google classroom and other helpful information may be posted on the class website at: [www.mloneall.wixsite.com/class-of-50-56-6](http://www.mloneall.wixsite.com/class-of-50-56-6)**

**Make a list of difficult topics to guide our discussion when class begins.**

There will be an exam on chapters 1 – 4 shortly after class begins in the fall.

## **Chapter 1: Matter, Measurement, and Problem Solving**

Exercises: 59, 73, 75, 78, 87, 91

## **Chapter 2: Atoms and Elements**

Khan Academy:

Elements and atoms: <https://goo.gl/4zqGqA>

The periodic table – classification of elements: <https://goo.gl/dePoVe>

Atoms, molecules, and ions

The mole and Avogadro's number: <https://goo.gl/Ru16n4>

Exercises: 29, 53, 58, 70, 75, 81, 92,

## **Chapter 3: Molecules, Compounds and Chemical Equations**

Khan Academy

Molecular composition

Empirical, molecular, and structural formula: <https://goo.gl/T5Ru4h>

Balancing chemical equations

Balancing chemical equations: <https://goo.gl/EaPcEc>

Visually understanding balancing equations: <https://goo.gl/HIA8ox>

Exercises: 33, 47, 55, 111,

## **Chapter 4: Chemical Quantities and Aqueous Reactions**

Khan Academy

Stoichiometry

Stoichiometry: <https://goo.gl/EHO54t>

Stoichiometry example problem 1: <https://goo.gl/nUeAdk>

Limiting reagent stoichiometry

Stoichiometry: Limiting reagent: <https://goo.gl/6i2Wjr>

Limiting Reactant example problem 1: <https://goo.gl/GcAfKF>

Exercises: 25, 26, 32, 43, 44, 53, 54,