

Name: _____

AP Chemistry Summer Assignment

Summer 2017

General Guidelines:

The summer assignment must be hand written. The assignment is due on the first day back to school, September 7, 2017. If the entire assignment is not handed in on that day, you will be dropped from AP Chemistry. This is a department policy for all AP Courses that is meant to emphasize the importance of being prepared and working independently.

Format for Summer Assignment:

Textbook Portion:

- Each section of problems should be labeled with the chapter number and page number.
(Example: Chapter 2, pg 98)
- For each problem you are assigned, be sure to include the problem number followed by the hand written answer. All work, formulas, substitutions, conversions, significant figures, units and calculations must be clearly shown. If I have to guess at what your work is showing, I will guess you did it wrong.
- Use complete sentences and thorough explanations in answering all essay type questions.

Critical Thinking Portion:

- Part A should be a document that is separate from the textbook questions. It may be typed or handwritten.
- Part B questions should be answered in the spaces provided within the packet.

Textbook:

The textbook used for the summer assignment is a free, online text from Rice University. This WILL NOT be the text we will use for class during the year. Directions for accessing this online text are found below.

1. Go to <https://openstaxcollege.org/textbooks/chemistry>
2. Click on "Get This Book" on the right side of the screen.
3. You are then given the option of seeing a website version of the text or downloading your own PDF copy on to your computer. You can use whichever you like.
4. You may be asked to donate money. Simply click "Continue without donating"

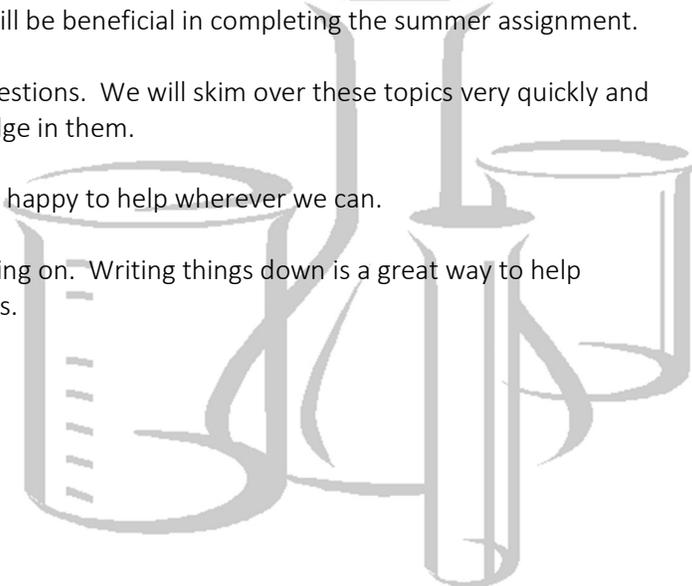
If you have technical issues accessing this site, please contact Mr. Johnson or Mrs. Allen via email. Paper copies are also available if you will not have internet access over the summer.

Additional Tips:

- An AP Chemistry review book is sold in book stores (Barnes and Noble, etc) that we highly recommend. It will help show you the style of questions in the course and will be beneficial in completing the summer assignment.
- Read each chapter before you complete the assigned questions. We will skim over these topics very quickly and you will be expected to have a solid background knowledge in them.
- Email us with any serious questions or concerns. We are happy to help wherever we can.
- Take notes on the chapters you are responsible for working on. Writing things down is a great way to help information sink in and start off the AP Chemistry process.

Have a great summer!!!

Mr. Johnson and Mrs. Allen



Textbook Portion:

Read the following chapters and complete each problem as described on the front side of this handout.

Chapter	Exercises
Chapter 1	Pg 57(64) #9, 16, 23, 28, 39, 40, 44a-d, 45a-d, 54a-d, 76a-d and 95
Chapter 2	Pg 120(127) #11, 16, 22, 30, 37, 45, 49, 51, 52, 56 and 57
Chapter 3	Pg 166(173) #3, 10, 12, 16a, 22, 24, 26, 33a, 35 and 38
Chapter 4	Pg 219(226) #3, 5, 11, 12, 14, 16 and 19

*** IMPORTANT ***

The content within these units will not be taught at any point during the AP Chemistry Course. A Test on these topics will be given on the **second day** that we are back in school (**Friday, September 8, 2017**). These units cover only the very introductory material that you learned in Honors or regular chemistry.

Critical Thinking Portion:

Part A - Experimental Design

It is extremely important that an AP Chemistry student can use their knowledge and skills to design and implement experiments in the laboratory.

Design an experiment to collect data that supports the claim that a 1.0 M NaCl solution is a **homogeneous** mixture. Describe 1) the steps, 2) the data you would collect, and 3) how the data supports the claim.

Laboratory equipment for your experiment should be taken from the list below.

(You may not need all of the equipment.)

50-mL beakers

Volumetric pipets (5 mL, 10 mL and 25 mL)

Balance

Hot plate

100 mL of 1.0 M NaCl(aq)

Stirring rod

Drying oven

Fume hood

Part B - Modelling and Data Analysis

It is also very important that an AP Chemistry student can examine, analyze, and synthesize information. Often times this information is given in the form of "models" which present the data visually in the form of pictures, diagrams, tables or graphs.

Complete the modelling activity on the following pages.