

Welcome to AP Chemistry!

Congratulations on a successful year in Honors or Pre-AP Chemistry! I am looking forward to starting our journey into AP Chemistry!! The purpose of the summer assignment is to exercise and maintain the knowledge and skills developed in Honors or Pre-AP Chemistry. Everything you see in the summer assignment is material that you learned last year; it is a true review. Be sure to pace yourself throughout the summer so that you do not have to cram it all in the last few days.

You will be focusing on the first 3 chapters in the AP Chemistry textbook. For each assignment, you will watch tutorial videos and then you will take practice quizzes.

Assignment 1

PHYSICAL VS CHEMICAL PROPERTIES

An Introduction to Chemistry and the Scientific Method

- [An Introduction to Chemistry](#)
- [The Scientific Method](#)

Properties of Matter

- [States of Matter](#)
- [A Word about Laboratory Safety](#)
- [CIA Demonstration: Differences in Density Due to Temperature](#)
- [Properties of Matter](#)

Watch the videos above. Click on the link below to complete the interactive practice. Take a picture of your trophies and keep a log of the pictures in a document that can be handed in when we return to school. Be sure to include your name and title in the picture.

Interactive practice:

<https://www.physicsclassroom.com/Concept-Builders/Chemistry/Chemical-Physical-Properties>

Assignment 2

SIGNIFICANT DIGITS AND MEASUREMENT PRACTICE

Scientific Measurement

- [The Measurement of Matter](#)
- [Precision and Accuracy](#)
- [CIA Demonstration: Precision and Accuracy with Glassware](#)
- [Significant Figures](#)
- [Dimensional Analysis](#)

Mathematics of Chemistry

- [Scientific \(Exponential\) Notation](#)
- [Common Mathematical Functions](#)

Watch the videos above (pink link). Click on the red link below to complete the interactive practice. Take a picture of your trophies and keep a log of the pictures in a document that can be handed in when we return to school. Be sure to include your name and title in the picture.

INTERACTIVE PRACTICE <https://www.physicsclassroom.com/Concept-Builders/Chemistry/Significant-Digits>

Assignment 3

ISOTOPES PRACTICE

Early Atomic Theory

- [Early Discoveries and the Atom](#)
- [Understanding Electrons](#)
- [Understanding the Nucleus](#)

Watch the videos. Click on the link below to complete the interactive practice. Take a picture of your trophies and keep a log of the pictures in a document that can be handed in when we return to school. Be sure to include your name and title in the picture.

INTERACTIVE PRACTICE : <https://www.physicsclassroom.com/Concept-Builders/Chemistry/Isotopes>

Assignment 4

NAME THAT ELEMENT

Atomic Structure

- [Mass Spectrometry: Determining Atomic Masses](#)
- [Modern Atomic Structure](#)
- [CIA Demonstration: Flame Colors](#)

The Periodic Table

- [Creating the Periodic Table](#)

Watch the videos. Click on the link below to complete the interactive practice. Take a picture of your trophies and keep a log of the pictures in a document that can be handed in when we return to school. Be sure to include your name and title in the picture.

INTERACTIVE PRACTICE: <https://www.physicsclassroom.com/Concept-Builders/Chemistry/Name-That-Element>

INTERACTIVE PRACTICE:<https://www.physicsclassroom.com/Concept-Builders/Chemistry/Metals-and-Nonmetals>

Assignment 5

NAMES AND FORMULAS 2

Chemical Nomenclature

- [Describing Chemical Formulas](#)
- [Naming Chemical Compounds](#)
- [Organic Nomenclature](#)

Watch the videos. Click on the link below to complete the interactive practice. Take a picture of your trophies and keep a log of the pictures in a document that can be handed in when we return to school. Be sure to include your name and title in the picture.

INTERACTIVE PRACTICE <https://www.physicsclassroom.com/Concept-Builders/Chemistry/Names-to-Formulas-1>

INTERACTIVE PRACTICE <https://www.physicsclassroom.com/Concept-Builders/Chemistry/Names-to-Formulas-2>

Email me if you have any questions or need any help – johnsonmc@calvertnet.k12.md.us

You can also message me in remind - **Please register for our class remind by texting @46c83eb to the number 81010**

This assignment will be due on the first day of class. We will also be having a test on the material covered in the summer assignment within the first 5 days of class.

I can't wait to see you in September! Good luck and have a great summer!!