

# LAB CHEMISTRY

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## What to bring to class:

★Textbook: Introductory Chemistry,  
A foundation (by Zumdahl & Decoste)  
**must be covered!**

★3-Ring Binder

★Notebook or loose leaf paper

★Lab Notebook

★Writing Utensils

★Calculator

★Agenda Book

★Your bright, young, inquisitive  
minds and a positive attitude

BONNY EAGLE HIGH SCHOOL



## Components to Chemistry Class:

### 1. Lectures

### 2. Lab investigations

### 3. Oral presentations

### 4. Class discussion

### 5. Individual work

### 6. Group problem-solving

### 7. Team-work

## GRADING:

A total point system will be used. Each assignment is worth a certain number of points. Because of the cumulative nature of this course each assignment is important, typically:

- Homework = 10-15 points
- Tests = 100 points
- Quizzes = 10-20 points
- Labs = 10 - 20 points

\*\*\* Some assignments will be worth more due to the amount of effort it will take to complete them....that point value will be given to you in the description of the assignment.

## EXPECTATIONS:

➡You will be expected to be in class on time with all the materials listed below:

Notebook, Book, Pens, Pencils, Lab Notebook, Calculator

➡You will be expected to treat everyone in this class room, including the teacher, with respect; failure to do so will result in your automatic removal from class.

➡You will be expected to follow all school policies and rules per the student agenda.

### It all boils down to this:

BE:

- On time
- Prepared
- Productive
- Appropriate

## Pathways to Success:

- ➡Be in class on time.
- ➡Do not use inappropriate language.
- ➡Keep your hands to yourself.
- ➡Respect others.
- ➡Respect the property of others (DO NOT touch what is not yours).
- ➡Stay in your seats until the bell rings.

# Essential Things to Understand About Chemistry

## 1 Understand the Atomic Model of Matter and its relationship to the properties of matter.

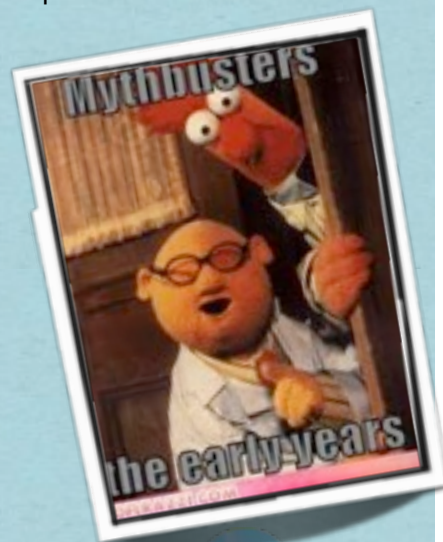
- What are the different types of matter and how do you differentiate among them?
- How has our concept of the atom changed over time, and what evidence has been used to support these models?
- How does atomic structure relate to the placement and properties of elements on the periodic table?
- How are nuclear reactions expressed and how are they used to produce energy?

## 2. Understand chemical elements and compounds and how they react with each other.

- How do elements bond (including valence electron and energy changes) to form chemical compounds and how are these compounds written and named?
- What are the differences between ionic and covalent compounds?
- What are the types of chemical reactions and how are they written?
- How can atoms be counted by weighing?
- How can chemical equations be used to predict needed or desired amounts of reactants or products?

## 3. Understand the relationships between intermolecular forces and kinetic energy.

- How is matter affected by changes in temperature, pressure, and volume?
- How do properties of matter (e.g. solubility and states of matter) result from the interaction between kinetic energy and interparticle forces?



## Attendance Policy

One week to make up labs after an absence

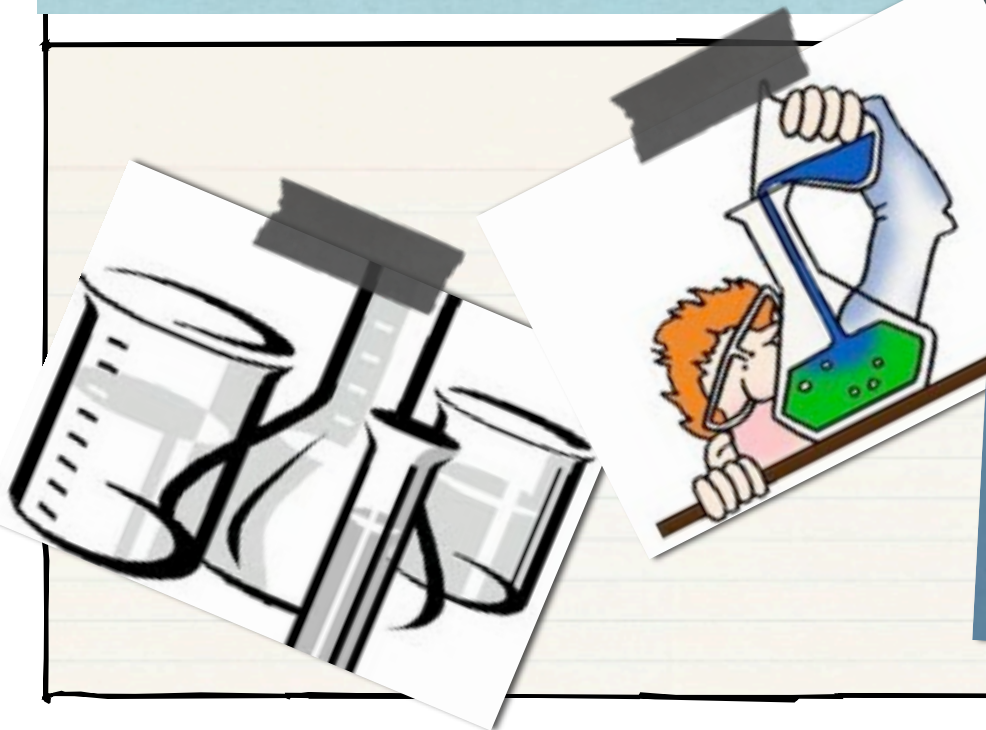
One day to make up tests, homework & classwork

Unexcused      You LOSE

Absent 5 days      NO credit

3 tardies = one absence

You MUST be in the class room before the bell to be considered on time!





## How does structure affect function?

Through scientific inquiry, lab experiments, critical thinking and collaboration, my intention is to have you not only understand this question, but make life-long use of your problem-solving skills, to become a self-directed learner who contributes positively to your community, and to be a clear and effective communicator who makes responsible and informed decisions.

Here are a few things that I think will help all students to be successful in this course:

- ☒ **TALK TO ME!** If "life happens" and you fall behind with assignments, need extra help, or simply need clarification, don't wait; meet with me before or after school, during my prep, or at lunch!
- ☒ **PLEASE** keep all cell phones, Mp3 players (any personal electronic devices) turned **OFF** and kept in bags **OUT OF SIGHT**. If I see it, I confiscate it, and you can get it at the end of the day. ☹
- ☒ You may not consume any food or drink (except water) in the classroom.

## Safety in the Lab:

- ☒ The science classroom is a laboratory. Only **SAFE** behavior is allowed! All students **AND** their parents/guardians will be required to read and sign a separate lab safety agreement before the student is allowed to participate in labs.
- ☒ Copies of this Lab Safety Agreement will be kept in the student's notebook and by the teacher.
- ☒ **ANY** violations or inappropriate and/or dangerous behavior may result in the loss of lab privileges.

## Cheating:

- If a student is caught copying another student's assignment, that student along with the owner of the paper being copied will both receive zeros for that assignment. If a student is caught looking at another student's paper during a test/quiz he/she will receive a zero for that test/quiz. **THIS IS THE FIRST AND LAST WARNING!**
- If a student is caught talking during a test/quiz it will be assumed that he/she is cheating and I will take the test/quiz and they will need to come in after school within 2 days of the incident to retake the test/quiz. Failure to make up the test/quiz within 48 hours will result in a zero. **THIS IS THE FIRST AND LAST WARNING!**
- Other forms of plagiarism will result in a zero on the assignment, and possibly other disciplinary action.
- Parents will be notified if any of these situations occur.

## Units of Study:

### Unit 1

**Introduction, Scientific Method, Measurement, Classification of Matter**

### Unit 2

**Formula Writing and Nomenclature**

### Unit 3

**Chemical Reactions, Reactions in Aqueous Solution**

### Unit 4

**Nuclear Reactions**

### Unit 5

**The Mole**

### Unit 6

**Chemical Reactions and Stoichiometry**

### Unit 7

**Atomic Theory, Bonding and Periodic Table**

### Unit 8

**Gases, Kinetic Energy, Interparticle Forces**



## Homework/Projects

You are expected to complete all homework and hand it in when it is due. You may only receive full credit if the assignment is turned in on time and is of the highest quality. Late work will only be accepted under certain circumstances. Late work will be penalized once by a reduction in points, not each day it is late. All assignments must be turned in before the unit test, and only with prior permission from the teacher. Late or make-up work will not be accepted after this point.

It is the your responsibility to pass in any assignments due when you were absent and to inquire about the assignments you missed. Any missed assignments must be completed in a timely manner.



## COURSE DESCRIPTION

Our world is made up of "stuff," and that stuff is made up of smaller stuff. Understanding how all that microscopic stuff fits together can tell us an awful lot about the world we actually experience. That is the purpose of a course in chemistry. We will be asking some very profound and intriguing questions about the very nature of our universe. This is a laboratory-oriented, problem-solving course; we use the laboratory to solve real problems which affect you and your world. Regardless of who you are outside of this class, within these walls, you are a scientist. You will be expected to ask questions, to make predictions, and to design experiments to answer those questions. Hopefully, you will also have fun along the way.



## Tests and Quizzes

One retake per test is allowed if a you had passed in all assignments for that unit. You must let the teacher know in advance (not the day of) that you would like to retake a test.

If a you are absent it is your responsibility to schedule a make-up time with the teacher. If you haven't made up the test within a week of the original date it will become a zero unless other arrangements have been

### ATTENDANCE IS IMPORTANT

Try as hard as you can to be in class everyday! If you are absent, it is important that you catch up your work quickly. If you need help to get "caught-up" schedule a time with me, your teacher, after school or during a prep.



### INFINITE CAMPUS PORTAL

Grades for all assignments will be posted in a timely manner. If a you ever have a question about missing work or your grade you can always check the portal.

# Lab Chemistry Syllabus Signature Page

## Student:

My signature indicates that I have read the Lab Chemistry Syllabus and agree to abide by the policies explained in that document.

\_\_\_\_\_

Student's Name (printed)

Student's Signature

Date

## Parent/Guardian:

My signature indicates that I have reviewed the Lab Chemistry Syllabus and understand that the student will be expected to abide by the policies explained in that document.

\_\_\_\_\_

Parent/Guardian Name (printed)

Parent/Guardian Signature

Date

