

CHEMISTRY 2026-2027

with Mrs. Steinbach

Areas of Study

Chemistry is a rigorous course designed to cover the basic concepts of general chemistry leading to the understanding of the composition, properties, and changes in matter. This will be accomplished using an active, hands-on, guided-inquiry approach.

More specifically, we will work hard to master:

Introductory Chemistry Principles

matter • atomic structure • bonding
molecular structure and properties • phase change
gas behavior • stoichiometry • solutions • acids/bases • energy
equilibrium • kinetics

NOTE: With emphasis placed on essential standards, we will focus on the Wisconsin Physical Science Standards.

Scientific Thinking/Practice

abide by lab safety • build lab skills • gather accurate data
analyze data • ask questions • form testable predictions
be creative • implement experimental design
communicate findings and evidence-based argumentation

Professionalism Skills

be punctual • be attentive to detail • manage time
be flexible • be organized • take initiative
develop a strong work ethic

Significant ELA Connections

analyze nonfiction text • build vocabulary • evaluate claims
practice evidence-based writing

Significant Math Connections

apply formulas and algebraic properties
decode scientific scenarios • graph data
interpret visual data using statistical methods

Let's have a great school year of learning!

Email

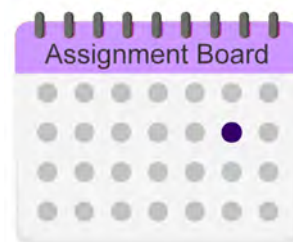


Contact Mrs. Steinbach at
tsteinbach@gilman.k12.wi.us
with any questions or concerns.

Class Website

Our class website,
www.PirateSci.com,
will be of use to
you throughout the
school year. The
[Assignment Board](#)

webpage provides a
calendar detailing what we are doing
in class each day. It is updated daily
and includes important due dates.



Needed Supplies

1. Your school issued **iPad**.
2. A **composition-style notebook (one per semester)**. This notebook will serve as your scientific log. It is a place to record all of your studies, meaning laboratory results and analyses, informational notes, reflections, etc.
3. A **number 2 pencil with an eraser**.

The following items will be provided and available in our classroom:
scientific calculator (e.g., TI-30Xa),
markers, colored pencils, scissors,
Elmer's glue, and highlighter.



Learning Method

In our classroom, I am asking that you firmly understand that **learning takes time, happens at different speeds, and may feel overwhelming** at times. Because of this, we need to work together and honor the struggles and celebrations along the way.

Our lessons will be conducted primarily using a modified version of the 5E learning-cycle model (e.g., learning sequence: engage, explore, explain, elaborate, and evaluate). **Our learning method naturally infuses learning strategies for scientific thinking and the understanding and abilities of inquiry with real-life, meaningful studies that will allow you to demonstrate mastery of the chemistry concepts and practices.** In other words, this way of learning is not only active and hands-on, but it matches how your brain learns naturally.

More specifically, thematic units are broken down into lessons. To follow is a typical set of learning tasks in our lessons:

- We often kick off lessons with a brief warm-up exercise called a "ChemCatalyst." This is our engage piece in the 5E model. Your response will help you and I to determine your prior knowledge.
- We then conduct an investigate. This is a scientific activity where we work to solve problems, analyze data, use a computer simulation, perform a laboratory experiment, build models, watch a brief demonstration, or complete a card-sorting activity. This will give you an opportunity to think and build your own understanding and to support your ideas with evidence. Often these activities will be conducted in small groups or pairs. This experience is our explore and explain piece in the 5E model.
- Next, we will have discussions, readings, and/or Cornell-style notetaking, as well as periodic formative assessments. During this portion of the lesson, we will work together to further solidify your chemistry understandings. Doing so provides us with the explain, elaborate, and evaluate portion of the 5E model.

Beyond these chemistry lessons, we will also infuse explicit ACT studies and chemistry literature activities.

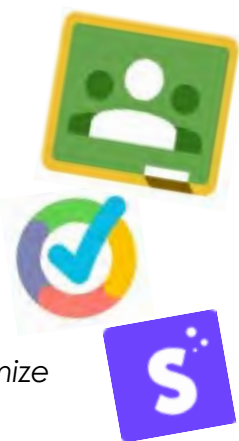
Major Learning E-Tools

LMS: Google Classroom

E-Textbook: *Living By Chemistry*

Assess: Formative, Snorkl, and ChemQuiz.net

Note: Science is a hands-on, tactile experience. Technology will be used intentionally to minimize unnecessary screen time.



Assessment 2nd Chance

You are always allowed to retake a major assessment for full credit. Yes, you can have a second chance at another assessment. But remember, proper preparation through full participation in class prevents poor performance on assessments and therefore the need for a redo.

Why redos? When you are an adult, you will not be allowed to do subpar work at your job. You will need to get it right, even if you have to redo the work. Bottom line: proficiency prevents future gaps and added difficulties in your later learning.

Here are the redo rules:

- Unlock a redo after attending a 15-minute minimum tutoring session during FLEX and/or demonstrate revisiting/retaking formative assessments.
- Redos are worth full credit. You will not be punished for taking longer to learn.
- The redo must be completed within two weeks of the original assessment date or the next unit's assessment, whichever comes first.

Absences

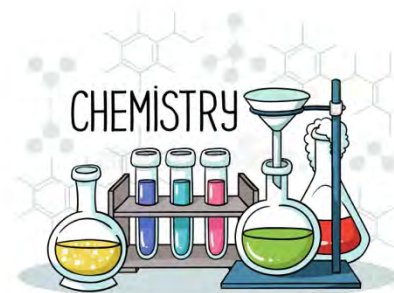
Try as hard as you can be in class every day.

Please check the [Assignment Board](#) on our [Pirate Sci website](#) to see what you missed. It's your responsibility to get caught up as soon as possible. Any papers can be found in the catch-up bin. Feel free to visit with a classmate or me for help.

Grading

Assessments are the tool we use to check and/or grade your learning.

Formative assessments (i.e., during learning or “practice”), in the form of check-ins, drafts, investigate checks, etc., will be worth 0% of your grade, but when completed with 100% accuracy will guarantee passing the associated summative test. This ensures that practice is a completely safe space to make mistakes, ask questions, and learn without damaging your GPA. All investigates and critical formative assessments must be completed. If you choose NOT to complete all critical formative assessments:



- Your summative assessment will be labeled as missing.
- While your peers are taking the summative assessment, you will finish your missing formatives and be assigned a detention(s).
- You will have one week from the original test date to complete the assessment.

Summative assessments (i.e., after learning or “game/match/meet”) will be worth 100% of your grade. And, all critical formative assessments must be completed before taking a test. Assessment examples include:

- TIERED TEST SUMMATIVE ASSESSMENTS are three-part tests where questions are subdivided into three levels of questioning based on depth of knowledge (DOK). The purpose of providing testing levels is to build confidence as students proceed and reward those who meet all foundation knowledge requirements, as well as reward, not punish, those who successfully complete the more challenging test questions.

Test Level	Level Meaning	Proficiency Shown On	Gradebook Entry
3	demonstrates critical/strategic thinking	Levels 1, 2, & 3	A
2	applies understanding	Levels 1 & 2	B
1	recalls foundational understanding	Level 1	C

NOTE: D/F gradebook entries result when level 1 proficiency is not demonstrated or not attempted.

- ALTERNATIVE SUMMATIVE ASSESSMENTS include projects, lab practicals, scientific arguments, scientific notebook data/reflection recordings, etc.

Rubric Proficiency Score	Understanding Level	Gradebook Entry
4 (3.51-4.00)	exceeds	100 = A
3 (2.51-3.50)	meets	90 (90-99) = A
2 (1.51-2.50)	approaching	80 (80-89) = B
1 (0.51-1.50)	developing	65 (60-79) = C/D
0 (0.50 and below)	non-attempt	F

Now that you understand the types of assessments you will encounter, let's be clear on **how your quarter and semester grade will be calculated.** Yes, you will need to complete a semester final assessment.

Quarter Grade	Semester Grade
• Critical Formatives Required • 100% Summative	• 45% Quarter A • 45% Quarter B • 10% Comprehensive Semester Final

Grading (continued)

Finally, here is our school's grading scale and the **meaning of your grade**.

Advanced	Proficient	Approaching Proficiency	Developing Proficiency	Insufficient Evidence
A means you have advanced understanding of the science content/skill	B means you are proficient in your understanding of the science content/skill	C means you are still developing your understanding of the science content/skill	D means you are beginning to have understanding of the science content/skill	F means there is insufficient evidence at this time (i.e., missing assignments to demonstrate understanding)
93-100.... A 90-92.... A-	87-89..... B+ 83-86..... B 80-82..... B-	77-79..... C+ 73-76..... C 70-72..... C-	67-69..... D+ 63-66..... D 60-62..... D-	0-59..... F

Help Needed

If you should have moments of struggle in this course,

- start by being resourceful and try to leap over your own hurdle. If you can overcome your challenge on your own, research shows that you are more likely to retain your newfound knowledge. Great resources to utilize include talking with a classmate, reviewing your notebook, completing an Internet search, etc.
- However, don't spend too much time struggling. Please take some time to visit with or email me. I will be happy to help you to get to the root of your concerns and establish a plan of action that provides additional scaffolding (e.g., individualized instruction, graphic organizers, targeted problem-solving opportunities, etc.).

FYI, please know that I will be monitoring your growth through formative assessment opportunities and will initiate a meeting and/or plan of action if necessary. Your academic success is very important to me.



Late Work



All assessments must be turned in when requested. Doing otherwise is detrimental to your academic progress. To help, in most cases, you will be provided with a floating deadline. For example, your lab scientific explanation will be due on Monday, Tuesday, or Wednesday of next week.

An extension may be given for an emergency or special situation.

Our late work policy is as follows:

- A detention will be issued for each late assessment.
- Tests cannot be taken until all critical formative assessments are turned in.

Expectations

Living up to expectations will build character necessary to be life, career, and/or college ready.

I want you to be prepared to get after your life dreams!



Take
the
bull
by
THE
HORNS

(Yep, you're right. Actually, that's a steer.)

TAKE CHARGE OF YOUR LEARNING...

Have pride in yourself and your science studies. Be curious and ask questions. Dig in, stay focused, and contribute your thoughts and skills. **Hard work today will help you to have the future life you are dreaming of.**

CONDUCT YOURSELF PROFESSIONALLY WITH KINDNESS AND INTEGRITY...

Because learning is currently your number one job, **professional appearance and conduct matters**. Be a team player. Share your ideas and talents with your classmates, but do so with kindness and integrity. Academic dishonesty (e.g., cheating and plagiarism) in any portion of your academic work is a serious offense. More importantly, academic dishonesty will hurt you in your attempt at future coursework that relies on the learning.



CHOOSE
Kindness
&
Integrity

(Watch: [Academic Integrity Video](#) from Michigan Tech)

BE PRESENT AND PREPARED...

Don't miss a day to learn something new and become a better person. Be present for scheduled class periods and participate fully from start to finish. Be prepared by doing the work necessary to achieve the learning (e.g., take notes, complete practice problems, etc.). Don't let people, devices, etc. distract you. Presence and preparedness are essential to maximize your learning experience.



Show up
prepared

(Go Pack Go!)

Expectations (continued)



TAKE CARE OF OUR CLASSROOMS...

Help me to keep our resources, supplies, and lab materials in great condition. I love our classrooms and I hope you do too. Keep your desks and lab stations clean and free of doodles. (If you can't resist the urge, doodle in your notebook.) If something is broken, report it to me right away. If the lighting or room temperature is not quite right, let me know and I will do my best to get it fixed. **We will work best in a nice, neat, and clean classroom.**

BE SAFE IN THE LAB...

Your safety and the safety of your classmates and I is important. You will be required to sign and abide by a student safety contract, as well as always follow class lab/activity directions in order to participate fully.

If you fail to do so, you will not be allowed to participate in laboratory activities and you will not have opportunity for make-up.

Behavioral Consequences

It is my belief that every student has the right to be educated in a welcoming, respectful, and safe learning environment. Thus, misconduct will be dealt with accordingly.

- Misconduct in the Classroom, depending on severity
 - First Offense... Warning
 - Second Offense... Detention
 - Third Offense... Removal
- Misconduct in the Lab
 - Removal

My Academic Pledge to You

COMPLETE DEDICATION TO YOUR ACADEMIC GROWTH...

- I will be your biggest academic backer and encourage you to do your best work.
- I will challenge you.
- I will ensure that other students do not disrupt your learning.
- I will do my very best to provide you with a variety of meaningful and fun learning opportunities that will help you to grow intellectually.
- I will foster your creativity, critical thinking practice, and problem-solving ability.
- I will help you to boost your understanding and confidence when you feel overwhelmed.
- I will treat you fairly.
- I will do all of these things because I believe in you and your abilities.