**Teachers:**

Science Teacher: Timothy Koehler

Email: koehler.timothy.w@muscogee.k12.ga.us

Learning Support Specialist: Tiffany Nicholas

Email: nicholas.tiffany.n@muscogee.k12.ga.us

**Conference Availability:**

* After School: Monday-Thursday 3:30 to 4:00

***Important Note****: Parents/students should always contact the teacher and confirm availability in advance to ensure that the teacher does not have a conflicting after-school meeting or appointment.*

**Introduction and Purpose**

Physical science is a multi-disciplinary science that encompasses two broad areas: chemistry and physics. Unlike biology, where you studied living things and their interactions, physical science is the study of the inorganic world, or in other words, non-living things. The boundary between chemistry and physics is somewhat intermingled, whereas chemistry is concerned with the study of composition, structure, and properties of various types of matter and their reactions with each other and physics deals with interactions of matter and energy. In this class, students will develop a deep understanding of the conceptual themes of chemistry and physics and their interrelated relationship with each other, other science branches, and with the world that we live in.

**Textbook**

*Physical Science* (Georgia Edition) by Glencoe

ISBN: 978-0-07-878534-4

**Textbook Issuance Policy**

Students will be issued an individual textbook and will be required to bring it to class every day.

**Additional Materials Required for Class Time**

* Three-ring binder with eight notebook tab dividers

Tab-1: Content Mastery Tracking Sheet & Syllabus

Tab-2: Unit 1 Section Notes

Tab-3: Unit 2 Section Notes

Tab-4: Unit 3 Section Notes

Tab-5: Unit 4 Section Notes

Tab-6: Unit 5 Section Notes

Tab-7: Unit 6 Section Notes

Tab-8: Filled with approximately 50 sheets of “blank” loose leaf notebook paper

* One black or blue ink pen
* Two #2 pencils or a 0.7 mm mechanical pencil with lead refills & large pencil eraser
* Highlighter marker(s) – multiple colors recommended

**Learning Targets**

Student learning targets will be covered in detail at the beginning of every lesson. In addition to developing science-related critical/analytical thinking skills and situational awareness of real-world phenomena, the coursework in this class will…

* facilitate literacy development to promote and support higher order thinking skills
* strengthen reading comprehension and reading processes
* improve mathematical skills
* help students realize the importance of collaboration and sociocultural learning

**Academic Expectations**

Students are expected to…

* arrive on time, stay for the entire class period, and participate fully during in-class readings, writings, and discussions.
* complete assignments by their due date. Failure to do so may result in a grade deduction.
* complete all essay type written assignments using MLA style and format, and upon completion, submit it to the teacher through the Canvas Assignments section in the Canvas portal for which that particular assignment was created. Any work with 20% or greater similarity rating will not be accepted.

**Grading Policy and Norms**

In general, a student’s grade in this class is an indication of how well he/she pays attention, takes notes, asks questions, and participates in class. As such, grades will be awarded to an individual student based on the teacher’s judgment of the student’s knowledge of content. Additionally, there may be instances where a teacher will grade using a “bell curve” method. This type of grading is typically used to boost a student’s grade (the entire class as a whole) when a teacher determines that the assessment was too difficult or the testing conditions not ideal.

In an effort to ensure that all students graduate prepared for the 21st-century workplace, the State of Georgia and the Shaw High School Administration has placed considerable emphasis on measuring student learning outcomes, wherein students are expected to demonstrate mastery of standards for each content area (i.e., science, math, history, etc.). As such, summative assessments will account for 50% of a student’s overall grade and formative assessments will make up the remaining 50%.

**Assignment & Assessment Categories**

Assignments and assessments are categorized as either formative or summative.

* Formative assessments are assessments for learning that measure student learning and comprehension in the moment and are primarily used by the teacher to check students’ understanding of the material and to modify upcoming instruction.
	+ Examples – warm-ups, exit slips, check-ups, classwork, homework, and lesson assessments
* Summative assessments, on the other hand, are assessments of learning that determine a student’s comprehension of an entire module or unit of instruction.
	+ Examples – unit assessments, mid-term, and final

Grade Weight per Perspective Category:

* **Formative** - equals 50% of a student’s overall class grade
	+ Homework
	+ Lesson Checkup
	+ Lesson Quiz
* **Summative** - equals the other half of a student’s overall class grade
	+ Unit Exam (Units 1-6)
	+ Mid-Term Examination: Physics (Units 1-3) & Chemistry (Units 4-6)
	+ Final Examination: Comprehensive (Units 1-6)
	+ Quarterly Benchmark Assessment (QBA)
* **Georgia Milestone Assessment System (GMAS) Test**
	+ GMAS\*

*\*The GMAS test is a state-mandated assessment which accounts for 20% of a student’s overall final grade for the year. To determine a student’s final class grade (which is the average of all four 9-weeks, as depicted in Infinite Campus) and the GMAS test grade, multiply the average “in-class grade” by 0.8, and then, multiple the GMAS grade by 0.2. Afterward, simply add the two results together and that will give you a student’s final grade for the year.*

**Number of Assessments**

Here is an overview of the type and number of assessments in this class. For a more detail explanation of when each assessment is due, refer to the Content Mastery Tracking Sheet.

 **Type** **Total Number of Assessments**

* Formative
	+ Homework 26
	+ Lesson Checkup 26 **78 Total Assessments**
	+ Lesson Quiz 26
* Summative
	+ Unit Examination 6
	+ Comprehensive Mid-Term/Final Exam 2 **8 Total Assessments**

**Grade Distribution**

90-100 A

80-89 B

70-79 C

* 1. F (the typical range for an “F” in this class)

0 F (the exception: academic integrity and incomplete/missing work)

**Grade Improvement Program**

Every student has the opportunity to retake any summative assessment for the chance to improve their score up to a 70. A student can only retake an assessment administered during the current 9-weeks. Each student may redo each assignment or assessment only once.

**Missed Assignments/Assessments**

While every effort will be made to accommodate a student that has missed class time, ultimately it will be the responsibility of the absentee to acquire any missed notes, handouts, worksheets, etc. Here are the guidelines for missed or late class work:

* Students are expected to make up all missed assignments/assessments regardless of whether or not their absence is excused or unexcused; failure to do so may result in afterschool detention that will remain in effect until the work has been successfully completed and turned in.
* A missed test/quiz must be made-up after school on the day of the student’s return unless it conflicts with the teacher’s schedule. In such instances, the teacher and student will determine an appropriate time for the student to make up the missed assessment at no penalty to the student.
* Missed in-class work will be completed as homework; failure to comply may result in afterschool detention that will remain in effect until the work has been successfully completed and turned in.
* Late assignments are typically docked 10% of their total value per day that it is late unless the student receives advance permission from the teacher.

**Credit Recovery**

Because of the ongoing grade improvement program mentioned previously, credit recovery is typically reserved for individual students that have missed large blocks of instruction for reasons deemed “excusable” by the school. In such cases, assignments/assessments will be assigned on a case-by-case basis.

**After-School Tutoring Program**

If students have ongoing questions about a particular science concept or lesson, they may consider attending the in-class after-school tutoring program to help them develop the necessary skills to succeed academically in class. While teachers are available most days after school, students interested in attending the after-school tutoring program will inform a teacher that they would like to attend voluntarily. One-hour tutoring sessions will be held in the classroom on Tuesday and Wednesday, beginning at 3:30.

In some instances, a student may be required to attend after-school tutoring as a result of a parent-teacher recommendation. In such cases, students will be expected to be there both days each week until such time deemed no longer necessary by either the teacher or parent.

**Honor Roll/Principal’s List**

Students that earn an “A” in all classes during any nine-week term will be placed on the Principal’s List. Students with an 80 or higher average in all classes will be on the Honor Roll.

**Academic Integrity**

As per the *Shaw High School Guide for Parents/Students*, the following circumstances are considered scholastic dishonesty and shall be strongly disciplined:

* Taking of information in any form into a test situation for the purpose of responding to test items or assisting others
* Plagiarism
* Taking of test questions or materials to provide assistance in later test situations
* Copying or allowing the copying of work when the copied material is to be counted as part of the student’s work or standardized testing
* Using a cell phone or texting during a test

Additionally, the first academic integrity offense will result in the student receiving a zero (0) on the assignment/assessment, parent notification, and three days of after-school detention. Any offense thereafter will result in parent notification and the student receiving an “F” for the 9-week term. Furthermore, students forfeit the opportunity to later improve the assignment/assessment if they were found guilty of academic integrity. IN SHORT, CHEATING ISN’T WORTH THE RISK!

**Learning Environment**

In addition to participating in in-class related activities and completing assignments on time, students will be expected to share their thoughts and opinions with fellow classmates during class time and via social learning platform (i.e., Canvas Portal). This sociocultural approach to learning is the formula for a productive learning environment, and ultimately, academic success for every student. By way of “active” participation, every student will have opportunities to peer teach and learn from one another, which I believe will undoubtedly enhance the learning outcomes for all students. In other words, talking at the appropriate time is not only encouraged but also expected.

Lastly, disruptive behavior, which is defined as disturbing or distracting others, is detrimental to any learning environment. It is imperative that such behavior does not occur during class. As such, violations will be dealt with promptly and severely. Any student that disrupts the learning environment will be given one day of after-school detention per incident. In addition, multiple incidents of disruption during a class period will result in a student’s removal from class.

**Class Rules**

The academic success of each student lies in part on the cooperation of every student in the classroom. Every student has the right to attend a school/classroom that has a conducive learning environment, and thus, it is the responsibility of the teacher(s) to establish and maintain a learning environment that is beneficial to both, the individual student and students as a whole. With that in mind, students are expected to adhere to the following class rules at all times:

* **Be on time** (tardiness is tracked and logged by the teacher)
* **Be prepared** (bring your textbook, three-ring binder, etc. to class every day)
* **Be respectful** (remain quiet and attentive during instructionor whenever a teacher is addressing the class – simply put, do not be a disruption in other students’ learning
* **Be engaged** (remain seated unless otherwise directed, and do not use your electronic devices unless a teacher has given you explicit permission to do so)
* **Be your best** (complete your homework, ask questions, and take good notes and review them often. Your success in this class is tied to content mastery, NOT seat time. More simply put, you must demonstrate that you understand at least 70% of the material to receive credit for this class)

Note: The rules mentioned above should be considered as a supplement or clarification to the rules outlined in the *Shaw Student-Parent Handbook* (<http://sites.muscogee.k12.ga.us/shaw/wp-content/uploads/sites/57/2015/11/FINAL-17-18-SHS-HANDBOOK.pdf>)and are in no way meant to replace or diminish the rules/policies that have been established by the school’s leadership.

Lastly, in an effort to maximize student learning potential, each student will be allowed only three restroom/hall passes per term (i.e., 9-weeks). While no student will be told that he/she cannot utilize the restroom after they have already reached their maximum quota if it’s an emergency, students will, however, be given one day of after-school detention per additional pass.

**Infinite Campus & Canvas**

Parents/students in the Muscogee County School District have ongoing access to their student’s grades and assignments throughout the entire school year by way of *Infinite Campus and Canvas.*

*Infinite Campus* is the online electronic grade book that is accessible via a personal login/password.

*Canvas* is an online learning platform that provides a place for students to submit work and get additional help. This online learning platform will be used as a collaboration tool. Students will have frequent opportunities to engage in online discussions with their teacher and fellow classmates or simply ask questions anytime via their Canvas Portal. In short, Canvas will be the primary mode of communication for out-of-class discourse.

* Infinite Campus Portal: [https://campus.muscogee.k12.ga.us/campus/portal/muscogee.jsp](https://campus.muscogee.k12.ga.us/campus/portal/muscogee.jsp%20)
* Canvas Portal: <https://mcsd.instructure.com/>

**Standards of Appropriate Behavior (Infinite Campus, Canvas, & Social Media Platforms)**

The behavior protocols defined by the *MCSD Parent-Student Code of Conduct/Behavior Handbook* also apply to the Canvas Portal, as well as other similar social media platforms. Students are not allowed to use offensive language/online flaming, post inappropriate material, or SPAM to the class. For more information regarding appropriate behavior, please visit: <https://www.muscogee.k12.ga.us/p/Divisions/StudentServices/StudentDiscipline/Information>

**Class Syllabus Statement of Understanding**

**Student:**

I hereby confirm that I have read and understood the class syllabus. I also understand that the class syllabus is subject to change at the discretion of the teacher based on the needs of the class and that the most current version of the class syllabus can be found in the “Syllabus” section for this class on Canvas.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Name (Please Print) Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature

**To the Parent/Guardian:**

The policies and expectations introduced in the class syllabus have already been discussed with your child in detail, but nonetheless, I encourage you to review/discuss this syllabus with your child as well. If you have any questions or concerns, please contact me via my school email listed at the top of the first page.

I acknowledge that I have been given an opportunity to read/review my child’s class syllabus.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Name (Please Print) Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Signature

**Science Lab Safety Contract**

To ensure a safe science classroom, a list of rules has been developed and provided to you in this student safety contract.  These rules set forth in this contract must be followed at all times.

**The student and a parent/guardian** **must sign and return a copy to the teacher**. **Please read the entire contract before you sign.** Students will not be allowed in the laboratory until all their contracts are signed and returned to the teacher.  All rules and guidelines have/will be discussed in class with further elaboration.

|  |  |
| --- | --- |
| General Guidelines | 1. Conduct yourself in a responsible manner at all times. All horseplay, practical jokes and pranks are dangerous and not permitted.
2. Follow all written and verbal instructions carefully. If you do not understand a direction or part of the procedure, ask your teacher before proceeding.
3. Never work alone in the laboratory. The teacher must always be present.
4. Do not touch materials in laboratory area until instructed to do so.
5. Perform only those experiments authorized by your teacher.
6. Do not eat food, drink, or chew gum in the laboratory.
7. Be prepared to work when you arrive at the laboratory. Familiarize yourself with the lab procedures before beginning the lab.
8. When working with chemicals, always work in a well-ventilated area.
9. Practice good housekeeping techniques. Keep work areas clean and tidy at all times.
10. Be alert and proceed with caution at all times.
11. Dispose of chemical waste properly. Sinks are to be used only for water. If you are confused how to dispose of the waste, please check with your teacher.
12. Keep hands away from face, eyes, mouth, and body when working in the lab. Wash your hands with soap and water after conducting all experiments.
13. Do not leave your experiments unattended. Do not wander around the room, distract students or interfere with experiments of others.
14. Know locations and operating procedures of all safety equipment including fire aid kit(s), eyewash station, safety shower, fire extinguisher and fire blanket. Know where the fire alarm and exits are located.
15. Know what to do if there is a fire drill during a laboratory period. Containers must be closed and electrical equipment turned off.
 |
| Clothing | 1. Students must wear safety goggles any time chemicals, heat, or glassware is used - no exceptions.
2. Dress properly during a laboratory activity. Long hair must be properly secured, shoes must completely cover the foot (no open backs), and dangling jewelry/baggy clothing must be secured.
3. Contact lenses should not be worn in laboratory unless you have permission from the teacher.
 |
| Accidents and Injuries | 1. Report any accident (spill, breakage, etc.) or injury (cut, burn, etc.) to the teacher immediately, no matter how minor it may be. Equally important, do not panic.
2. If you or your lab partner is hurt, immediately (and loudly) yell out the teacher’s name to get the teacher’s attention – again, try not to panic.
3. If a chemical should splash in your eye(s) or on your skin, immediately notify the teacher to begin flushing with running water for at least 20 minutes.
 |
| Handling Chemicals and Live Specimens | 1. All chemicals in the laboratory are to be considered dangerous. Do not touch, taste, or smell any chemicals unless instructed to do so.
2. Check the label on all chemical bottles twice before removing any contents. Only take as much as you need.
3. Never return unused chemicals to their original container or taint with contaminated instruments.
4. Never remove chemicals or other material from the laboratory.
5. Handle all living organisms used in a laboratory activity in a humane manner.
6. Preserved biological organism and materials are to be handled in a serious manner and disposed of properly.
 |
| Handling Glassware and Equipment | 1. Never handle broken glass with your bare hands. Use a brush and dustpan for cleanup. Place broken glass in the designated glass disposal container.
2. Examine glassware before each use. Never use chipped, cracked or dirty glassware.
3. If you do not understand how to use a piece of equipment, ask the teacher for help.
4. Do not immerse hot glassware in cold water - the glassware may shatter.
5. When removing electrical plugs from a socket, grasp the plug, not the electrical cord. Hands must be completely dry before touching anything electrical.
6. Always carry a microscope with both hands.
 |
| Heating Substances | 1. When using a hot plate, make sure that hair, clothing, and hands are a safe distance away at all time.
2. Heated glassware remains very hot for a long time. Glassware should be set aside in a designated place to cool, and picked up with caution. Use tongs or heat protective gloves if necessary.
3. Never look into a container that is being heated.
4. Do not place a hot apparatus directly on the lab desk. Always use an insulated pad. Allow plenty of time for hot apparatus’ to cool before touching it.
 |

**Science Safety Contract**

This class offers a variety of laboratory activities on current concepts in science. Safety instruction will be given and safe practices will be stressed in all laboratory work.

***Note: This page of contract must be signed and returned prior to our first scheduled lab activity***

**Student**

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, have thoroughly read the *Science Safety Contract* and do hereby agree to follow all safety rules and procedures listed herein. I will conduct myself in a safe and conscientious manner in the laboratory and during all experiments. I will not perform any unauthorized lab procedure. I understand that misbehavior in the laboratory, or failure to follow safe lab procedures, can cause a serious accident. I further understand that a violation of these rules might result in me not being allowed to participate in future lab exercises, which could possibly result in academic failure.

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Parent/Guardian**

I have read and understood the *Science Safety Contract* and discussed the importance of following these safety rules and teacher’s instructions with my child. Additionally, I understand that laboratory activities provide my child with the opportunity to explore science and solve problems in a hands-on, minds-on kind of way and I give my permission for my child to participate in these types of activities.

Parent/Guardian Name (Please Print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_