

Physical Science

Syllabus

Course Description

Physical Science is an introduction to chemistry and physics. Students will develop skills in obtaining, evaluating and communicating in science; planning and carrying out investigations; analyzing and interpreting data; scientific modeling; engaging in argument from evidence; constructing explanations and designing solutions; using math and computational thinking; asking questions and defining problems. Topics to be studied include: matter and thermal energy, atomic structure, the periodic table, compounds and reactions, force, motion, work and mechanical energy, waves, and electricity and magnetism.

Goals

The student will:

- explain how atoms bond to form stable compounds (Unit 1)
- use the Periodic Table to explain the relative properties of elements based on patterns of atomic structure (Unit 1)
- explain how atoms bond to form stable compounds and name the binary compound (Unit 2)
- generate evidence supporting the claim that mass is conserved during a chemical reaction and what type of reaction is occurring (Unit 3)
- explain the changes in nuclear structure as a result of fission, fusion and radioactive decay (Unit 4)
- compare and contrast the phases of matter as they relate to atomic and molecular motion (Unit 5)
- explain transformations and flow of energy within a system (Unit 5)
- Investigate and explain the properties of solutions (Unit 6)
- plan and carry out an investigation to analyze the motion of an object using mathematical and graphical models; and support the claims presented in Newton's three laws of motion (Unit 7)
- identify the relationships between work, mechanical advantage, and simple machines (Unit 8)
- obtain, evaluate, and communicate information to explain the properties of waves (Unit 9)
- explain the properties of and relationships between electricity and magnetism (Unit 10)

Evaluation

This is a class based on mastery of the content. This means a student needs to show what they know, understand, and can do *by themselves* without the help of teachers or peers. This means that they will be evaluated on tests and quizzes only and the main class grade will come only from those assessments.

Tests: 60%, Quizzes, Labs, and Classwork: 40% : Test retakes (teacher discretion only), will be allowed after proof of remediation. If a student doesn't do well on an assessment, they may be allowed to do a retest. **Retests will only be given after the student shows completed remedial work to the teacher's satisfaction. Remediation occurs in Saturday School and PRIDE time.**

We will be assessing the students often and we will always have cumulative quizzes and tests (including 2 Nine-Week Tests and a Fall Semester Final) so that they keep seeing older material. Please don't throw away any of your notes.

Semester Final Average:

80% Semester Average
20% Final Exam

Semester Grading Statement

**Grades are on a 9wk basis and based on quizzes, formative assessments, labs, or any special project that the classroom teacher may assign. This portion will count for 80% of the semester final average. Final exams will be given at the end of each semester and will count 20% of the semester average. See the LCHS Handbook for the semester exam policy.

Supplies

The following materials are required and are to be brought with you every day:

- Folder/Binder** or whatever will keep you from not losing notes per the **Final Exam** is a cumulative test
- Pencils** (preferably mechanical pencils with extra lead), please no pens because we do a lot of math
- Calculator** with basic functions is a must and will not be lent out during class. For geometry class you will need a calculator regardless, so it can be used in science as well. A regular basic calculator will work for those who do not have geometry, but make sure it has the square root function
- Colored Pencils**
- Colored Highlighters** please have at least 4 different colors-we color code notes, not having this is not detrimental
- Paper**
- Scissors**-not detrimental if you do not have

Make-up Work

Student's responsibility if absent:

- to find out what work was missed--see GC if applicable and see teacher to get paper copies
- PRIDE time will be an excellent time to get extra help if needed, outside of PRIDE you will need to schedule a time.
- make up work due by the date arranged with the teacher (within 3 days of absence if excused)

Teacher's responsibility:

- to be available to help the student understand material taught during the absence
- regular make-up time is during PRIDE or before/after school, however the teacher's schedule is subject to change for before/after school help
- to provide materials to make up missed work

Discipline Plan

All students are expected to behave properly in the classroom. Any behavior that interrupts teaching and/or learning will not be tolerated.

The classroom rules are as follows: P.R.I.D.E. (Preparation, Respect, Integrity, Dependability, Excellence)


1. Show **respect** for yourself and others.
2. Be **alert and attentive** at all times.
3. Be **prepared** with a notebook, a writing utensil, a calculator, and whatever else you need.
4. Be **on time**. A student is considered tardy if not in their seat at the bell.
5. Only **water/Gatorade in a clear water bottle** is allowed in the room, no food or other drinks.
6. Stay seated unless given permission to move.
7. No personal grooming during class, especially **no spraying of scented products**.

The consequences for violation of classroom rules are as follows:


1. Verbal warning
2. Student-teacher conference and possible seat change
3. Parent contact, before or after school detention, or Saturday school
4. Referral

**Severe disruptions will result in immediate referral to the office.

Required sites to enroll in:

Sign into your Google email account, scroll down to the Classroom app  , and use the following codes to join Mrs. Butler’s Physical Science class. You will need to make sure your push notifications are **on**, on your phone. Meaning you need to receive any alerts regarding communication I make in GC, i.e., messages, assignments, class announcements, etc. No excuses for why you did not know.

REQUIRED	3st Period	Tools	5th Period	6th Period	7th Period
Google Classroom					

You will also need to be a member of Student Square  , the communication tool for all of Lee County Schools and everyone of your teachers in this building. This is an app that must be downloaded and notifications on. Parents you will need to download the Parent Square app.



Warm Regards,
The Physical Science Team

LCHS Vision: The Lee County School System fosters relationships through diverse, challenging, and quality educational experiences that cultivate successful citizens.