Physical Science Team Syllabus 2019-2020

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Room G200	Room G210	Room B220	Room G204	Room G202
Office Hour 9th	Office Hour 7/8th	Office Hour 10th	Office Hour 7/8th	Office Hour 9th
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Curriculum Description:
Physical Science students will employ scientific skills and processes to identify and utilize the properties of matter and energy through the study of chemistry, physics, and earth science. Students will study atoms and the periodic table, matter, motion and forces, waves, work and energy, space, plate tectonics and surface processes, energy resources, and climate change. (NCAA approved)

2019-2020 Physical Science Tentative Schedule:

1st Semester Topics
- Atoms and the Periodic Table
- Chemical Bonds and Reactions
- Properties and States of Matter
- Waves (Sound & Light)
- Work, Machines, and Energy

2nd Semester Topics
- Motion and Forces
- The Universe and Big Bang Theory
- Nebular Theory and Solar Systems
- Plate Tectonics & Surface Processes
- Energy Resources and Conservation
- Human Impact on Climate

Rules and Expectations:
1. Follow directions!
2. Arrive on time and be prepared for class. Showing up late shows disrespect for others.
3. Never interfere with anyone's learning, including your own.
4. Come to class with an inquisitive mind, a good attitude, and be ready to share ideas and ask questions!
5. Bring a writing utensil, notebook, and charged Chromebook daily.

Consequences of Inappropriate Behavior:
1st Offense: Verbal warning
2nd Offense: 15-minute detention, either before or after school, *to be served by 3:30 p.m. the following school day*. If this detention is not served, a discipline report will be filed with the Assistant Principal, resulting in a detention assigned by the Assistant Principal.
Severe Clause: Any student may be immediately sent to the Dean if an incident warrants it.

Technology Policy: Technology is encouraged and utilized often in Physical Science class. Students will be provided with all necessary technology, including calculators, to be successful in class.

Students are required to follow their teacher's classroom policy concerning cell phone usage. This ensures that students will not be distracted during instructional time.

On days when an assessment is given, any student found using ANY electronic device not provided by a teacher may receive a ZERO for that assessment. If a violation occurs, parents/guardians will be contacted.

High School Network (Computer) Policy:
Continuous infractions of the Acceptable Use Policy (AUP) may result in removal from the class with a failing grade.

Grading:

- 40% of grade from summative assessments (unit tests).
- 24% of grade from labs, activities, and projects.
- 16% of grade from practice (Google FAs and unit quizzes, assignments, bellringers, etc.).
- 20% of grade from semester exam.

Grading scale is as follows:

100 – 98 A+	89.9 – 87 B+	79.9 – 77 C+	69.9 – 67 D+	59.9 – 0 F
97.9 – 93 A	86.9 – 83 B	76.9 – 73 C	66.9 – 63 D	
92.9 – 90 A-	82.9 – 80 B-	72.9 – 70 C-	62.9 – 60 D-	

Note that grades are not rounded.

Grades are calculated and updated as frequently as possible. Current grades are posted on *Infinite Campus*. Students and parents are strongly encouraged to track their own progress. Infinite Campus can be accessed directly at: **https://sycamoreil.infinitecampus.org/campus/portal/sycamore.jsp** or via the district homepage.

Any student suspected of or found cheating on a summative assessment or unit quiz may receive a grade of "zero" and NOT be allowed to retake the assessment. Any students found copying labs, activities, projects, or assignments will *split the grade of the finished product.*

Retake Policy for Unit Quizzes:

1. **Retakes are only available for quizzes.**
2. Students are allowed retakes on quizzes earning **82.9%** or below.
3. The **retake grade will be recorded** in Infinite Campus.
4. Students must complete and submit a quiz corrections sheet in order to be eligible for a retake.
5. Retakes must be completed before the summative assessment (unit test) and outside of class time.
6. Students will only have **one retake opportunity** per quiz.
7. Retakes will be a new form of the quiz that addresses the same targets that were on the original.

Absence and Late Work Policies:

If absent, ***students are responsible*** for finding out what happened during their absence. Google Classroom and/or a classmate are valuable resources for this purpose. Students are also encouraged to communicate their absence with their teacher via email.

Unexpected Absences:
When absent unexpectedly due to an illness or other unforeseen event, students will be given one day for each day absent to make up missing work. If the absence is of an extended time, individual arrangements will be made between the teacher and the student.

Prearranged Absences: (This includes, but is not limited to, vacations, school functions, early releases due to extra-curricular activities, etc.)
Any assignments (class work, laboratory work, etc.) due on the day of a prearranged absence must be completed in advance, unless otherwise arranged with the teacher. Failure to complete assignments in advance may result in loss of credit for that work.

Lab/Activity Absences:
If you miss a lab and/or activity you are still responsible for the material gained through that experience. The best option is to schedule a makeup of the lab/activity with the teacher. *Time is of the essence when it comes to labs and activities*. It is the student's responsibility to discuss options with the teacher immediately upon their return from an absence.

Due to their nature, some in-class activities and demonstrations may not be made-up

Late Work:
Labs, activities, and projects handed in after the due date will be accepted with a 50% deduction in the student's score if handed in before the corresponding summative assessment. All assignments handed in after the summative assessment will earn no credit ("zero" points).

Google Classroom:
Students will be utilizing Google Classroom during the year. Check Classroom frequently for daily work, assignments, due dates, class updates, study guides, and helpful tips. Students will complete formative assessments on Google Classroom (GCFAs). Each student is allowed three attempts for each GCFA; the highest grade will be entered in *Infinite Campus*. GCFAs submitted *after* the due date will be accepted with a 50% deduction in the student's score if the assessment is submitted *prior to* the corresponding summative assessment. Google Classroom FAs submitted after the summative assessment will earn *no credit* ("zero" points).

The Physical Science Team is composed of five members: Ms. Bridge, Ms. Martinson, Mr. Mraz, Mr. Nore, and Mrs. Olson. We are available during our office hours or by appointment if you need additional help or clarification. Students are encouraged to contact any of us via email! In addition, there is tutoring by certified teachers available in the library after school on Tuesdays and Thursdays from 3:15 – 4:15 and on Sundays from 7 PM – 9 PM. There are also National Honor Society Students available to tutor in the library on Thursday mornings during Late Start (8:15 – 8:45).

Parents and Guardians – *We need your help, please!*

- Please check *Infinite Campus* at least once per week. Please ask your child for access to their Campus account.
- Please check Google Classroom for assignments, due dates, procedures, and daily class news. Please ask your child for access to their Google account.

Please keep this syllabus in your science folder for future reference.

_____*Sign Below*_____

I have read the course syllabus for Physical Science and fully understand the stated policies.

Student's Printed Name _____ Period_____

Student's Signature _____ Date_____

Parent/Guardian's Signature _____ Date_____

Science Department Critical Outcomes [CO]:

1. Students will recognize and investigate problems, and formulate and propose solutions supported by reason and evidence. (Cited from the ISBE State Standards)
2. Students will formulate hypotheses based on observations, and conduct controlled experiments to test the identified hypotheses.
3. Students will follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks. (Cited from the Literacy Core Standards)
4. Students will organize, analyze, and evaluate data.
5. Students will demonstrate an understanding of the relationship(s) between the structure of matter and its properties and functions.
6. Applying conservation laws, students will demonstrate an understanding of matter and energy transformations in various processes and cycles.
7. Students will relate how various forces drive natural processes.
8. Students will use existing organizational and classification systems to connect scientific facts and concepts.
9. Students will demonstrate an understanding of the relationships among science, technology, and society in historical and contemporary contexts. (Cited from the ISBE State Standards)

Physical Science Curriculum Power Standards

S.PS.1a: Atomic Structure and the Periodic Table: Students will utilize the modern periodic table as a tool to determine the structure and properties of atoms.

S.PS.2a: Chemical Bonds and Reactions: Students will differentiate between ionic and covalent bonds, as well as name and write the formulas of simple binary ionic compounds.

S.PS.3a: Properties and States of Matter: Students will investigate the relationship(s) between the structure of matter and its properties. Students will apply the kinetic theory of matter to explain how energy affects the arrangement and motion of particles in a substance.

S.PS.4.a: Waves: Students will identify the types of waves based on particle behavior (in a medium). Students will identify and explain various wave properties, behaviors and interactions, and calculate the speed of a wave given its wavelength and frequency. Students will relate light to the perception of color.

S.PS.5.a: Work and Energy: Students will calculate work and power, as well as define and give examples of types of energy. Students will apply conservation laws to describe various energy transformations within a system.

S.PS.6.a: Motion and Forces: Students will describe and analyze an object's motion with words, using numerical information, and utilizing graphs. Students will identify the forces that act on an object and determine the effect they have on the object's motion by applying Newton's various laws.

S.PS.7.a: The Universe: Students will describe how a star forms and functions, read and interpret an H-R diagram, and identify the stages of the stellar life cycle. Students will apply the Big Bang theory to explain observations of the Universe.

S.PS.8.a: The Solar System: Students will use nebular theory to explain the formation, composition, and arrangement of bodies in our solar system.

S.PS.9.a: Earth's Structure and Plate Tectonics: Applying plate tectonic theory, students will classify plate boundaries based on their characteristic features, and explain how plate movement forms those features.

S.PS.10.a: Weathering, Erosion, and Deposition: Students will define and describe the types of weathering and the factors that affect the rate of weathering. Students will define erosion and deposition and identify the agents which cause them.

S.PS:11.a: Earth's Natural Resources (Renewable and Nonrenewable): Students will classify resources as being renewable or nonrenewable and as being fossil fuels or alternative fuels. Students will create presentations to teach their classmates about a particular natural resource and evaluate each others' presentations. Students will compose and mail a letter to a United States Senator or Representative in support of a particular natural resource.