Physical Science Syllabus 2021-2022

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Mission Statement:

Thomas County Central High School is committed to all students graduating as productive citizens in a global society.

Course Description:

The Physical Science Georgia Standards of Excellence are designed to continue student investigations of the physical sciences that began in grades K-8 and provide students the necessary skills to have a richer knowledge base in physical science. The standards in this course are designed as a survey of the core ideas in the physical sciences. Those core ideas will be studied in more depth during in the chemistry and physics courses. The physical science standards include abstract concepts such as the conceptualization of the structure of atoms and the role they play in determining the properties of materials, motion and forces, the conservation of energy and matter, wave behavior, electricity, and the relationship between electricity and magnetism. The idea of radioactive decay is limited to the understanding of whole half-lives and how a constant proportional rate of decay is consistent with declining measures that only gradually approach to zero. Students investigate physical science concepts through the study of phenomena, experiences in laboratory settings, and field work.

Requirements:

**** Due to the current pandemic, this class will be fully digital.** You will turn in assignments, take tests, take notes, etc. on your school issued chrome book. If, however, you are the type of person who wants to keep a paper copy of your work in this course, the supply list below would be my suggestions. If you choose to work in paper/pencil, you may take a photograph of your work and submit it as the digital turn-in. ****

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If you want to keep a paper copy of the course work for this class, these are my suggestions:

- **A Composition Notebook.** These will stay in the classroom and will be gathered periodically for grading. They will be used to record your thoughts and assessments for case studies.
- **A 1 ½ - 2 inch 3 Ring Binder**. I will supply you will note packets and graphic organizers to help you learn to take notes during each unit. This is where you will keep your materials for the course.
- **Notebook Paper**. You will be taking notes you will need paper for. I prefer that you use college rule.
- **Pens, Pencils, Colored Pencils and a Highlighter**. You are free to take notes in any color you find helpful, but blue or black ink is preferred for assignments that are turned in. It may be helpful for you to keep these items in a zippered pouch in your notebook.
- **A hi-polymer gum eraser**. Everyone makes mistakes. If you make a mistake that requires a lot of erasing, it is best to have an eraser that does not mess up the paper.

Standards Based Instruction:

This course will include information in compliance with the Georgia Performance Standards. For complete coverage of this course's standards, please see the standards given on the first day of school, or visit https://www.georgiastandards.org/Georgia-Standards/Documents/Science-Physical-Science-Georgia-Standards.pdf

SPS1. Obtain, evaluate, and communicate information from the Periodic Table to explain the relative properties of elements based on patterns of atomic structure.
SPS2. Obtain, evaluate, and communicate information to explain how atoms bond to form stable compounds.
SPS3. Obtain, evaluate, and communicate information to support the Law of Conservation of Matter.
SPS4. Obtain, evaluate, and communicate information to explain the changes in nuclear structure as a result of fission, fusion and radioactive decay.
SPS5. Obtain, evaluate, and communicate information to compare and contrast the phases of matter as they relate to atomic and molecular motion.
SPS6. Obtain, evaluate, and communicate information to explain the properties of solutions.
SPS7. Obtain, evaluate, and communicate information to explain transformations and flow of energy within a system.
SPS8. Obtain, evaluate, and communicate information to explain the relationships among force, mass, and motion.
SPS9. Obtain, evaluate, and communicate information to explain the properties of waves.

SPS10. Obtain, evaluate, and communicate information to explain the properties of and relationships between electricity and magnetism.

Reading in the Curriculum Area:

As part of our content standards, students will be reading science journal articles, current events articles, and other science literacy documents.

Textbook:

Pearson Physical Science Concepts in Action (replacement cost - $84.97)

Students are responsible for books they check out. They will be given an Indebtedness Notice if not returned by the end of the year, which will need to be cleared to be able to walk at their graduation ceremony.

Expectations:

Be on time to class:

Do not be tardy to class without a note.
If you are home sick, let me know. If you know you will be absent, let me know ahead of time.

Be ready to learn:

Turn in your assignments on time.
Do your best to remain on task and an active participant in class.

Make good choices:

Show respect to yourself and your classmates.
Follow the dress code and the appropriate rules for the lab.

If students do not meet the class expectations, the teacher will follow the course of action below:

1st Offense – Teacher/Student Conference
2nd Offense – Parent Contact/Teacher Detention
3rd Offense – Referral to Administration

Cell Phone Policy:

Cell phones will not be allowed in the classroom, except for educational purposes.

Lab Rules:

You must follow all of the regulations provided to you in the lab rules as well as any additional rules either written or verbal. It is important that you follow my instructions at all times during lab. This is not to hinder your creativity, but rather to keep you alive and non-disfigured. If you do not follow lab rules, you can be excused from lab and given a grade of zero (0) for that lab.

Absences:

You are always responsible for any material that you miss for any reason of absence. Although most information will be available to you through my google classroom, it is good practice for you to still check with me regarding your absence. It is in your best interest to get your assignments turned in ahead of any upcoming absences.

Grading:

You will have the opportunity to earn the grade you chose to have. What you make in this class is up to you.
Tests are worth 35%
Labs and Projects are worth 25%
Classwork, quizzes, daily grades are worth 20%.
Benchmarks (9 weeks exams) are worth 20%

Tutoring:

There may be times when you need clarification on content, grades or expectations. If that applies to you at any time during the course of this year, please email me (bhayes@tcjackets.net). If your concerns cannot be addressed via an email at that time, we can schedule a time to meet in person or virtually. To guarantee that I will be available for you, please schedule a time with me at least 24 hours in advance so I can clear my schedule and meet with you.

Communication:

I ask that you come to me, first, whenever there is something that needs to be handled. Give me an opportunity to fix the situation, grade, misunderstanding, etc. If we cannot fix it together, we will go to the next step, together. If you have a situation that you feel makes an exception to my cell phone policy, grading policy, or anything else that you need to discuss with me, please reach out to me. We are going to do this together!

“In the spirit of science, there really is no such thing as a ‘failed experiment.’ Any test that yields valid data is a valid test.”
-Adam Savage, *Mythbusters*