**Physical Science Syllabus** **2016-2017**

**Pickens High School**

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**Course Description**

Physical Science is a required course. The knowledge and skills acquired during this course will serve as a background for Biology, Chemistry, and Physics. The course content focuses on the nature of matter and the basic laws and forces operating in the universe. Principles of physics are explored through the study of waves, electricity and magnetism, energy, heat, laws of motion, gravity, sound, and light. Chemistry principles include atoms and the periodic table of elements, physical and chemical changes, types of chemical reactions and chemical formulas, solutions, acids and bases, and radioactive decay. In addition, this course will enable students to become familiar with the scientific method, encourage reading in science topics, and make them aware of career opportunities within various science disciplines. The End Of Course (EOC) test for Physical Science is administered during the last few weeks of the course and is worth 20% of the entire course grade.

**Instructional Philosophy**

Students will be engaged in a variety of challenging assignments, including labs where possible, to show how science relates to everyday life and in the world of work. They will be held to high expectations regarding their quality of work and personal behavior. Laboratory technique and experimental design, which includes data collection, interpretations and manipulation, will be consistent components in this course. Students will often work in teams, but will be expected to complete individual assignments in relation to the team’s work.

**Course Objectives**

The Georgia Performance Standards for Physical Science are the curriculum for this course and are posted in the science classroom. Standards and elements are core to the curriculum. Emphasis is placed on the “process of doing science” and using scientific explanations to describe how and why things work as they do.

**Students will**:

1. Investigate our current understanding of the atom.
2. Explore the nature of matter, its classification, and the system for naming types of matter.
3. Distinguish the characteristics and components of radioactivity.
4. Investigate the arrangement of the Periodic Table.
5. Compare and contrast the phases of matter as they relate to atomic and molecular motion.
6. Investigate properties of solutions.
7. Relate transformations and flow of energy within a system.
8. Determine the relationships between force, mass, and motion.
9. Investigate the properties of waves.
10. Investigate the properties of electricity and magnetism.

Method of Evaluation:

**Summative Assessment: Major Grades 60% of your classroom grade (Tests, Notebook Checks, and Projects)**

**Formative Assessment: Daily Grades 40% of your classroom grade (Homework, labs, quizzes,etc)**

**End of Course Test (EOC) - 20% of Grade for the Entire Course**

**Resources**

1. Class Lectures and discussions
2. Bring Your Own Device Technology (BYOD)
3. Demonstrations
4. Problem Solving
5. Lab Experiments (inquiry based where possible)
6. Video Clips
7. Homework and Projects
8. Evaluation and Assessment (pop quizzes, notebook checks, labs, major tests, projects)
9. Textbook: *Physical Science by Glencoe: McGraw Hill*
10. Materials: Three ring binder, pen or pencil, paper, textbook, calculator

***Classroom Procedures: Guidelines for success:***

1. **Students may use a composition notebook or lined paper for taking notes. A three ring binder is needed to keep notes and any handouts.**
2. **Makeup work is the responsibility of the student. Please refer to the student handbook regarding this policy.**
3. **Students *not in class when the tardy bell rings will be sent to the front office for a tardy pass. Students will only be admitted to class with the tardy slip from the front office. See student handbook for tardy policy.***
4. ***Formative assessments will be given continuously* to assess the student’s progress. Students should study the notes and topics covered each day.**
5. **Calculations are important in Physical Science; students who own smartphones, iPads etcetera will be allowed to use calculator apps on these devices (as part of the BYOD program). Otherwise, students are encouraged to purchase their own calculator. A basic calculator that can be bought at the dollar store is acceptable.**
6. **The class will be using technology devices on designated days and at designated times as a part of the BYOD program. Any use of these devices such as iPads, smart phones, etc. for personal use such as texting is not permitted during class instructional time and repeat violations will result in administrative action.**
7. **The lab safety rules will be followed at all times. Safety rules will be given in the introduction of the course.**
8. **Cheating or Plagiarism in any form will not be tolerated. The school policy will be followed in discipline matters concerning cheating or passing off someone else’s work as your own. For Plagiarism, an initial grade of 1 will be given; for the first offense ONLY, the student may redo the assignment using their OWN WORK for a grade up to a 70. ALL subsequent instances of plagiarism will simply receive a grade of 1 and administrative action. Do NOT cut and paste projects/presentations from the Web and put your name on them!!**
9. **Progress reports are issued every 4 ½ weeks.**
10. **Failure to follow procedures will lead to disciplinary action.**

**ALL POLICIES AS OUTLINED IN THE PHS STUDENT HANDBOOK 2016-2017 ARE IN EFFECT.**

**I look forward to studying with you in the awesome world of science. This class requires time, effort, study, and dedication.**

Thank you so much for allowing me to study physical science with you this semester. I am sure that we will have a wonderful semester! **Remember we are all part of the team! GO DRAGONS!!**