**Physical Science (9th Grade) Syllabus** **2017-2018**

**Jasper Middle 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 40% of your classroom grade (Tests, Notebook Checks, and Projects)**

**Formative Assessment: Daily Grades 60% of your classroom grade (Homework, labs, quizzes,etc)**

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