**Physical Science**

**Standard/Honors**

**10th Graders**

**Course Description:**

Physical Science is a course designed to teach the interrelationships of physics (energy) and chemistry (matter). Its main purpose is to relate the knowledge and skills of physical science to everyday experiences. The physical science teacher’s goal should be to evoke a love of science in the students and to develop their critical thinking skills to the highest level. This goal can be accomplished through an emphasis on demonstrations, hands-on experiences, activities, and the use of technology. **Standard physical and Honors physical science is a vigorous course which are both an introduction to and a prerequisite for chemistry and physics.** This course outline is keyed to Glencoe Science, c 2017

**Evaluation:** 

In determining student mastery of content or concept material, regular monitoring or testing must be employed for designated chapters. No less than one-half of point totals of students’ nine-weeks grades must be comprised of designated grades. A strong emphasis is required on critical thinking skills, student applications, and student production. Testing on content may include any of the following: multiple choice, matching, true or false, short answer and problem solving. Chapter tests should not be open book and should be filed in the teacher’s room. The composition of a test in honors physical science should include more problem solving questions (calculations, discussion, applications, and critical thinking). Homework or daily grades for honors physical science students should include a large portion of the provided “Reinforcement” and “Enrichment” worksheet/assignments included with the text.

Teachers may develop their own exams. They may draw from tests provided with the textbook but should be aware that those tests may need supplemental questions to reflect correlation with the Common Core State Standards preparing America’s students for college & career.

Teachers should maintain a file of student’s work, accessible by the student under the teacher’s guidelines. All work should be returned to the students in a timely manner, and all tests for which a grade is given must be maintained in the student’s file. Parents may view student work, but the file must be retained in the teacher’s classroom.

**Physical Science (Glencoe)**

 **Course Syllabus 2019-2020**

**Unit 1 Motion and Forces**

**Chapter 1 - The Nature of Science**

* **The Methods of Science**
* **Standards of Measurement**
* **Communicating with Graphs**
* **Science and Technology**

**Chapter 2 - Motion**

* **Describing Motion**
* **Velocity and Momentum**
* **Acceleration**

**Chapter 3 - Forces and Newton’s Laws**

* **Forces**
* **Newton’s Laws of Motion**
* **Using Newton’s Laws**

**Unit 2 Energy**

**Chapter 4 - Work and Energy**

* **Work and Machines**
* **Describing Energy**
* **Conservation of Energy**

**Chapter 5 - Thermal Energy**

* **Temperature, Thermal Energy, and Heat**
* **Conduction, Convection, and Radiation**
* **Using Thermal Energy**

**Chapter 6 - Electricity and Chapter 7 - Magnetism and Its Uses**

* **Electric Charge**
* **Electric Current**
* **More Complex Circuits**
* **Magnetism**
* **Electricity and Magnetism**
* **Producing Electric Current**

**Unit 3 Waves**

**Chapter 9, 10 & 11 - Waves and Sound**

* **The Nature of Waves and Sound**
* **Waves Properties and Sound**
* **The Behavior of Waves**

**Chapter 12 & 13 - Light, Mirrors and Lenses**

* **The Behavior of Light**
* **Mirrors**
* **Lenses**

**Mid-term Exam (study guide will cover all chapters above)**

 **Mid-term Exam 20% of your overall grade**

