# PHYSICAL SCIENCE COURSE SYLLABUS Hoover High School 2014-2015

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As stated in the Alabama Course of Study, Physical Science is a class that will be taught as an *inquiry-based, hands-on* approach to studying those concepts and skills in chemistry and physics that are considered fundamental to the development of scientific literacy. This course will include first-hand observation through lab investigations, practical problem solving, and the use of technology. This course will serve as a foundation for the pursuit of other science courses.

Students may be asked to complete projects outside of class, discuss and present evidence of science outside of the formal science classroom, and utilize technology both inside and outside of the allotted class time.

#### I. <u>Materials & Resources</u>

- Pencils & Pens
  - Colored Pencils
  - Notebook paper

### II. <u>Units of Study</u>

<u> 1<sup>st</sup> Semester – Matter (Chemistry)</u>

- ◊ Tools of Science
- ◊ Conversions & SI
- The Nature of Science
- ◊ Graphing
- The Atom (including Isotopes & Nuclear Equations
- ♦ The Periodic Table
- ♦ Atomic Bonding
- ◊ Chemical Reactions
- Acids & Bases

# • Graph paper

- Calculator
- Earbuds/Headphones

#### 2<sup>nd</sup> Semester - Energy & Motion (Physics

- $\circ$  Motion
- $\circ$  Forces
- o Energy
- $\circ$  Heat
- Magnetism
- Electricity
- o Light
- $\circ$  Sound

#### III. Instructional Strategies

The instructional strategies used in this course will include, but not be limited to: demonstrations, guided practice, activities, open-inquiry activities, cooperative group work, small and large group discussions, computer and library research, laboratory experiences, and audiovisual presentations.

## IV. Assessment & Grading Policies

The forms of assessment used in this course will include: verbal and written evaluations, formal tests & quizzes, semester exams, in-class assignments, teacher observations of individual and group efforts, laboratory work, notebook grades, and student-created projects.

#### A. Tests/Quizzes/Exams/Projects

- 1) Written assessments make up **60%** of the <u>9-weeks</u> grade.
- 2) There will be an assessment at the end of each unit.
- 3) There will be short quizzes throughout the course when appropriate to include notebook organization grades.

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- 4) There will be a semester exam at the close of each semester worth 20% of the <u>semester</u> grade.
- 5) When absent from class, students are responsible for scheduling the make-up with the instructor in accordance with the guidelines in the student handbook. Grades on STI will reflect a "O" until the test is completed and assessed. No grade will be replaced if an absence goes unexcused.
- B. In-Class Assignments/Labs
  - 1) Classwork, Lab Reports, & other assignments make up **40%** of the <u>9-weeks</u> grade.
  - 2) These assignments & experiences will be graded on completeness, following directions, correctness/effort and timeliness. Points will be deducted if students turn in work that is late, un-named, messy or illegible. Late grades are generally a deduction of 10% per day until 0% is reached.
  - 3) When absent from class, students are responsible for communicating with the instructor regarding their absence, request any handouts, and complete any classwork or notes missed. Project due dates that are missed due to absence automatically become due the day of return. Make-up work is to be completed in accordance with guidelines in the student handbook. Grades on STI will reflect a "O" until the work is completed and assessed. No grade will be replaced if an absence goes unexcused.
  - 4) Students who miss a lab activity will not have an opportunity to make-up the activity but will still be responsible for the data and conclusions from that activity. Students will need to work cooperatively with classmates to obtain this information. Grades on STI will reflect a "missing assignment" for the lab activity which does not reduce the overall average (in other words, that grade does not count).
  - 5) When absent from class, students are responsible for communicating with the instructor regarding their absence, request any handouts, and complete any classwork or notes missed. Make-up work is to be completed in accordance with guidelines in the student handbook. *Grades on STI will reflect a "O" until the work is completed and assessed. No grade will be replaced if an absence goes unexcused.*
- C. Class participation
  - All students are expected to arrive to class on time, participate in activities/labs/discussions, bring appropriate materials, follow lab safety procedures, assist in class/lab clean-up, and refrain from disruptive behavior or inattentiveness.
- D. Grading
  - 100-90 A 89-80 B 79-70 C 69-60 D 59&below F

- Quizzes will count anywhere from 50-75 points
- Lab Reports and Classwork will count 10-50 points
- Your grade will be most effected by Tests

<u>Semester</u> grades will be calculated according to the following percentages:

- 40% 1<sup>st</sup> 9-weeks average
- 40% 2<sup>nd</sup> 9-weeks average
- 20% Semester Exam
- <u>9- weeks</u> grades will be calculated according to the following: Based on total points, no categories
  Tests will count at least 100 points

#### V. Other Classroom Policies

In accordance with the guidelines in the student handbook, all school and system policies will be upheld within this classroom and lab rooms.

- A. Tardies Tardies will be handled in accordance with the Student Handbook.
- B. Disruptions Boisterous activity, talking or disrupting while the teacher is instructing, and destruction of property or the learning environment is not allowed.
- C. Dress Code The school dress code will be strictly upheld within this classroom and lab.
- D. Cell Phones Cell Phones are to be silenced and unseen during instructional hours. Retrieval of student cell phones that are used inappropriately is in accordance with school policies.
- E. Activation of any lab emergency apparatus without cause will be treated as a false fire alarm.
- F. Discipline will progress in the order of:
  - 1) student/teacher conference
  - 2) teacher/parent communication
  - 3) detention with parent notification
  - 4) student/administrator action