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Physical Science/Spring 2010 Phone: 770-521-7600

Textbook: Glencoe Physical Science, McLaughlin, Thompson, and Zike (2008)

(Replacement cost \$86.00)

*The cost of replacement will be assessed to any student that fails to turn in the book they were issued, or if the book or barcode is damaged.

The textbook is an excellently written and illustrated reference sourcebook. The notes delivered in class are essentially an outline of the material, with definitions and examples. The textbook and corollary notes are neither the course in totality, nor are they our only source for material.

COURSE DESCRIPTION: The curriculum continues the students' investigations of Physical Sciences that began in Grades K-8 (see Fulton County System wide Science Vertical Instructional Framework). The course is designed as an introductory overview of the major concepts in chemistry and physics. This semester students will master the principles of Physics and achieve the "Meets" or "Exceeds" level on the EOCT, the course-long test administered by the State of Georgia Department of Education. The course includes scientific concepts related to motion, forces, conservation of matter and energy, electricity, magnetism, and the behavior of waves. These concepts will be reinforced through hands on laboratory experiences and fieldwork that is designed to improve the students' scientific skills.

OUTCOME EXPECTATIONS: At the end of this course students should be able to:

- 1. Use appropriate scientific tools to observe record, organize, analyze, interpret, write, and present the results of scientific investigations clearly and accurately.
- 2. Explain the current understanding of the structure of the atom and compare ionic with covalent bonds.
- 3. Use information, calculations, and predications to explain the nature, properties, classification, and conservation of matter.
- 4. Explain the nature and process involved in radioactive changes.
- 5. Explain the trends in the Periodic table and use the knowledge to predict the properties of representative elements.
- 6. Compare and contrast the phases of matter as a result of atomic and molecular motion.
- 7. Describe the nature of solutions and the factors that affect the solubility of substances.
- 8. Explain the transformation and flow of energy in deferent medium relative to the heat capacity of different substances.
- 9. Use calculations to determine the relationships between forces, mass, and motion.
- 10. Explain the properties of waves and recognize that all waves transfer energy.
- 11. Explain the nature and production of static electricity and electric currents based on electron movements.
- 12. Describe the relationships between electricity and magnetism and explain their applications.

FORMAT: The course is divided into units and topics for the spring semester which are in compliance with the Georgia Performance Standards (GPS) set forth by the State of Georgia Department of Education and will cover chapters 2-14 of the textbook.

Georgia Performance Standards

The following Georgia Performance Standards will be covered this spring semester. A detailed description of each Standard may be read on the Georgia Department of Education website (www.doe.ga.us).

SPS7: Students will relate transformation and flow of energy within a system

SPS8: Students will determine relationships between force, mass, and motion

SPS9: Students will investigate the properties of waves

SPS10: Students will investigate the properties of electricity and magnetism

Units and Topics

Chapters 2 Motion (SPS 8) 3 Force (SPS 8) 4 Energy (SPS 7) 6 Thermal Energy (SPS 7) 5 Work and Machines (SPS 8)
Chapters 7 Electricity (SPS 10) 8 Magnetism and Its Uses (SPS 10) 9 Energy Sources (SPS 10) 10 Waves (SPS 9) 11 Sounds (SPS 9) 12 Electromagnetic Waves (SPS 9) 13 Light (SPS 9)

GRADE DETERMINATION

The Fulton County Grading Scale will be used for all graded assignments 90-100 = A 80-89 = B 70-79 = C Below 70 = F

Calculation of Final Semester Average will be as follows:

- Tests/Performance Assessments = 45%
 - Quizzes=10%
- Homework = 10%
- Laboratory Work = 20%
- EOCT = 15%

End of Course Test (EOCT): A comprehensive test written and administered by the State of Georgia Department of Education to assess student mastery over the principles and concepts contained in the course. The test is a two-day, approximately ninety question, multiple-choice test administered in late April or early May. All coursework has been developed specifically to engage the student in learning opportunities to help them achieve the "Meets" or "Exceeds" qualifying score on the EOCT.

Tests and Quizzes: Written tests and quizzes include information from class notes, the textbook, handouts, lab activities, and demonstrations. Adequate notice of tests will be given and you will be expected to take a test even if you are absent the previous day. The End of Course Test (EOCT), April 27th – May 1st, will act as the final exam. The EOCT WILL BE CUMMULATIVE FOR THE ENTIRE YEAR, covering the major concepts of units 1 through 6. ALL STUDENTS ARE REQUIRED TO TAKE THE EOCT IN ORDER TO RECEIVE CREDIT FOR THE COURSE.

Test make up times must be arranged with the teacher.

Laboratory Activities: Labs are an important part of the curriculum. <u>EACH</u> person in the lab group is responsible for participating in the lab in class and completing the lab questions and/or write-up on his/her own paper. Labs not collected by your teacher should be placed in your notebook. Labs will be graded for accuracy and/or completion. Lab make-ups will be scheduled on an as required basis.

Participation: Attendance, attentiveness, being prepared with the proper materials and appropriate behavior during class activities are factors in participation. Notebooks will be check for organization.

Homework: This grade includes class work and homework assignments. Homework is checked at the <u>beginning</u> of class. NO CREDIT IS GIVEN FOR HOMEWORK THAT HAS BEEN MISPLACED, LEFT IN YOUR LOCKER OR AT HOME, ETC. <u>Homework is checked for accuracy and/or completion</u>.

Make-up Work: After any absence it is the total responsibility of the student to find out immediately on their return what make-up work is required, when it is due, and how it should be accomplished.

Notebook: Everything we do in Physical Science should be in your notebook (notes, worksheets, labs, class work, homework, quizzes, information sheets, and the syllabus) in an organized fashion. A three ring binder is suggested.

RECOVERY POLICY: FULTON COUNTY RECOVERY POLICY:

(High School version)

Provision for Improving Grades

 Opportunities designed to allow students to recover from a low or failing cumulative grade will be allowed when all work required to date has been completed and the student has demonstrated a legitimate effort to meet all course requirements including attendance.

Students should contact the teacher concerning recovery opportunities. Teachers are expected to establish a reasonable time period for recovery work to be completed during the semester. All recovery work must be directly related to course objectives and must be completed ten school days prior to the end of the semester.

2. Teachers will determine when and how students with extenuating circumstances may improve their grades.

CHATTAHOOCHEE HIGH SCHOOL GUIDELINES:

Recovery is available to students with a cumulative grade below 74% after a minimum of two (2) major grades. The maximum grade a student can earn for a recovery activity is 70%. There will be only one recovery opportunity per failed major assignment or test. The individual teacher will determine the means of recovery. THE STUDENT MUST INITIATE THE PROCESS WITHIN FIVE (5) DAYS OF NOTIFICATION OF A FAILING GRADE ON A MAJOR ASSIGNMENT/TEST.

There is no planned extra credit in this class and your lowest test grade is not dropped at the end of the semester. It is therefore very important that assigned work is completed and turned in on time.

GENERAL INFORMATION AND CLASS BEHAVIOR RULES

HONOR CODE POLICY: Any act of cheating "either by giving or receiving, in any form, information relating to a graded experience" will be considered a violation. I will complete an Honor Violation Form which will be filed in the office and "may be used by the faculty in making future recommendations, specifically, memberships in honor clubs (NHS and Beta)". You will receive a grade of '0' on the assignment or test, and I will call your parents to inform them of the violation. Please refer to your handbook for additional information.

TECHNOLOGY CODE OF ETHICS: According to the Fulton County School policy, "<u>students</u> <u>shall not</u> alter nor attempt to alter school or private property including technology hardware and software." This includes but is not limited to:

- 1. Changing desktop settings or control panels on computers.
- 2. Removing or damaging mouse tracking balls, keyboard keys, cables, connectors, network jacks, or any other hardware.
- 3. Modifying computer software.
- 4. Damaging computer disks, CD ROMS or other media.

Also, students must not access any program or website, unless specifically authorized to do so by the teacher. Always ask before you log on the internet, or access any program on the computer. Students are not allowed to check their e-mail.

EXTRA HELP: Physical Science is a demanding academic subject. If you are having difficulty you are encouraged to make arrangements with the course teacher or any other science teacher for extra help before or after school. In addition, Homework Hotline operates from 5:30 pm to 8:00 pm at 404/843-7700.

ATTENDANCE: It is essential that you attend class and complete the assignments. There is no guarantee that unauthorized late assignments will be accepted and they will certainly receive a discounted grade. Students who are present for any portion of the school day are expected to turn in all assignments due on that day in order to receive full credit for the assignment.

NIGHTLY STUDY: Information is presented in class every day. Therefore, it is expected that you review each day's work at night so that any difficulties can be resolved during class the following day.



How-to-study.com has many tips for improving your student's studying, note-taking, test-taking, and other educational skills.



- 1. All student handbook rules apply in this class.
 - Three classroom specific rules are most noticed:
 - i. Ask before you get out of your seat during instructional time to minimize distractions
 - ii. No clicking, tapping, drumming, etc. is allowed
 - iii. Never throw anything
- 2. Be in your seat when the tardy bell rings.
- 3. COME TO CLASS PREPARED! Bring your homework, your notebook, writing instrument, paper, calculator, and any other supplies you need for the day. Have your homework out on your desk at the beginning of the period.
- 4. All food and drink must be consumed in the cafeteria.
- 5. Be respectful to your teacher, classmates and visitors.
- 6. Alert, aware behavior is appropriate.
- 7. Lab safety rules apply in this class.

Failure to follow these rules will result in the following escalations:

- a teacher conference with the student for the first offense and a call or email to your home
- a private detention will be assigned (30 minutes of on task time before or after school)
- referral to an administrator

ANY BEHAVIOR WHICH ENDANGERS YOU OR ANOTHER STUDENT IN THE CLASSROOM WILL RESULT IN IMMEDIATE REFERRAL TO AN ADMINISTRATOR.

Student's name:	
:	
Please sign and date below indicating that you have reviewed the Physical Science syllabus.	
(Date)	
(Date)	
ou to view your child's academic agh the front office.	
nat you are willing to share,	
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