

General Chemistry 2013 – 2014

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Textbooks *Modern chemistry.* Holt (2009)
Common Assessment Laboratory Manual. Edson, Carvan, Hemmingsen (2009)

Classrooms Room 220, South Building.

Course Description Chemistry is the study of the relationships between the structure and properties of matter and energy changes associated with the changes of matter.

Course Goal The study of chemistry should allow students to be better able to think for themselves, become problem solvers, analyze proposed solutions and claims for others, and to become a better citizen in a world where issues involving science and technology are becoming more complex.

Essential Skills Students will be asked to demonstrate the following skills.

1. Critical thinking.
2. Collect, analyze and interpret data.
3. Solve realistic application problems.
 - Accurately calculate mathematical answers.
 - Clearly express understanding of concepts in written form.

Grading Policy Course grading has been changed from the tradition ABCDF range to a standards-based 4-3-2-1 scale.

4	100% (A)
3.5	95% (A)
3	90% (A-)
2.5	85% (B)
2	75% (C)
1.5	65% (D)
1	50% (F)

Activities:

FORMATIVE: Homework, labs, etc.

SUMMATIVE: Common Unit Exams.

Progress Grade: Based on Standards-Based Score.

Semester Grades:

90% Standards-Based Score.

10% Comprehensive Final Exam.

✓ **Grades can be accessed through SIS.**

Raymore Peculiar High School Policies

Guidelines for Success

1. Take notes over all lectures and discussions.
2. Turn in completed work on time.
3. Be considerate and courteous to your peers.
4. Participate with an “eager-to-learn” attitude.

Classroom Expectations

All students must uphold the standards stated in the Raymore-Peculiar High School student handbook. In addition to those standards, other expectations are as follows:

- **FOLLOW DIRECTIONS:** *WHETHER SPOKEN, OR WRITTEN BY SCHOOL OR ADULT.*
- **RESPECT:** *TOLERANT OF ALL DIVERSITY, IDEAS, MATERIALS AND CULTURES.*
- **PREPARATION:** *SUPPLIES, ASSIGNMENTS AND COMMUNICATE IF NOT PREPARED.*
- **INTEGRITY:** *HONEST, INDIVIDUAL, SELF-CREATED WORK AND MAKING RIGHT CHOICES.*

Discipline

Disciplinary action will be taken upon infraction of the course expectations. Teacher action includes but is not limited to a safety seat, buddy room, teacher detention, after-school detention or office referral. For most infractions, consequences will ensue in a particular order. Dependent upon the severity of the infraction, the sequence may escalate to more appropriate consequences.

1. Verbal/written acknowledgement of the infraction from teacher (warning).
2. Buddy room placement to remove student from temptation and behavior environment pattern. Student must process before or after school.
3. Teacher detention assigned for not meeting classroom expectations.
4. Office referral for not meeting Raymore-Peculiar High School expectations.

Classroom Activities

Students can expect lessons to be conducted primarily through lecture, reading the text, interactive computer programs, class discussion, videos and laboratories. Differentiated instruction will also be used to incorporate the variety of learning styles.

Major Assessments

Upon the completion of every unit, students will take a common assessment. At the end of each semester, students will take a comprehensive final exam. These assessments will count for the majority of the course grade. Along with all exams, common laboratories will be used to assess unit comprehension with analysis and investigation of realistic application problems.

Academic Issues

Class Materials	Students are expected to always have paper and a pen/pencil. Textbooks and scientific calculators are expected by each student to be fully prepared for class. A 3-ring binder or pocket folder is strongly recommended for organizational purposes.
Bell Work	Class periods may begin with a 5-10 minute assignment. These assignments will either serve as a review over previously taught material or prepare students for a specific classroom activity.
Assignments	Daily practice and homework checks will be given to help understanding of the required material. Due dates will be announced and students will be responsible for meeting those deadlines. Keeping up with these assignments is critical for student comprehension of covered standards.
Absent Work	The teacher maintains all absent work. It is the responsibility of the student to get any missed work. Students are also expected to have their missing work turned in after their absence. If a student has a lengthy absence, they need to speak with the teacher to arrange a plan for getting caught up on missing work. If a quiz or exam was missed due to absence, it is the student's responsibility to arrange a time to make up the assessment.
Late Work	Any missing assignments can be turned in without penalty. Deadline for all late work is the unit exam.
Retakes	Any student who wants to show better understanding on any exam will be given the opportunity to retake. An Academic Contract will be used within <u>one week of receiving the exam score to reschedule the retake.</u> Retakes must be completed during the designated dates determined by the teacher. Deadline for ALL retakes will be two weeks before the end of the semester.
Retake Procedure	If a student chooses to retake an assessment, that student must do the following: <ol style="list-style-type: none">1. Complete an academic contract within one week of receiving original test score. It will outline how the student will demonstrate understanding, to include: completing and turning in all unit homework assignments, completing a retake assignment, and/or attending mandatory tutoring.2. Student will retake the exam during morning or afternoon tutoring; exam may be modified at teacher discretion.3. The teacher will contact parent if the student still does not meet mastery.
Extra Credit	NO EXTRA CREDIT will be available. Sorry, it's building policy.
Tutoring	Tutoring will be made available throughout the week with all science teachers. Along with tutoring, students can visit the My Big Campus site through the Ray-Pec homepage. Worksheets, power points and problem solutions will be posted frequently to help any student at home.

Classroom Procedures

Entering Class	Students are expected to use passing time to prepare for class. All items necessary for class should be brought by the student. Class will begin with a teacher signaled opening. When class begins, all student conversations are to stop and students are to sit in their assigned seat.
ID Badges	Must be brought to class every day for identification and school security.
Electronic Devices	Cell phones, MP3 players, and other electronic devices may be used DURING PASSING TIME and OUTSIDE THE CLASSROOM . If these items are in use or unnecessarily visible during class, the device will be confiscated. All items will be taken to the appropriate administrator.
Food and Drink	Students may have food and drinks in the classroom. Students are expected to maintain a clean work area. If trash is not disposed, this privilege will be revoked.
Hall Passes	Pass will be given out at the discretion of the teacher.
SIS Grade book	<p>Students and parents can view grades through SIS online through the Ray-Pec home page. Assignments may be included in SIS but not given points. These assignments are provided to the student and parents as feedback. Teacher feedback may be provided in the "comments" section. Assignments may have any of the following marks instead of numeric scores.</p> <ul style="list-style-type: none"> ➤ EXMP = exempt: The student is not responsible for the assignment; no score. ➤ MSNG = missing: The due date has passed and the student did not turn in anything; any missing score results in a zero until completed. ➤ ABS = absent: The student was absent during either the class the assignment was given or the time it was collected; any absent score results in a zero until turned in (once turned in, full credit will be assigned).

Tentative Unit Schedule

First Semester		Second Semester	
Unit 1	<i>Matter and Energy</i>	Unit 6	<i>Chemical Reactions</i>
Unit 2	<i>Atoms –Building Blocks of Matter</i>	Unit 7	<i>Stoichiometry</i>
Unit 3	<i>Atomic Structure</i>	Unit 8	<i>Solutions and Gases</i>
Unit 4	<i>Periodic Table</i>	Unit 9	<i>Reaction Rate/Equilibrium</i>
Unit 5	<i>Chemical Structure</i>	Unit 10	<i>Acids and Bases</i>
Final Exam #1		Final Exam #2	

Course Objectives

Science Essential Understandings	Chemistry Power Standards
<p data-bbox="191 254 748 285"><i>Broad categories that span all science classes (K-12)</i></p> <ol data-bbox="191 323 789 1100" style="list-style-type: none"><li data-bbox="191 323 789 436">1. Critical thinking is enhanced through process skills, knowledge and investigations.<li data-bbox="191 478 789 552">2. Advances in technology and innovations impact our world.<li data-bbox="191 594 789 667">3. All life is interdependent with one another and with its environment.<li data-bbox="191 709 789 823">4. Movement of matter and energy throughout living and nonliving systems follow laws, principles and patterns.<li data-bbox="191 865 789 978">5. Human activity affects and depends upon the continual changes of the earth's systems and resources.<li data-bbox="191 1020 789 1100">6. The systems of the universe are predictable and follow patterns.	<p data-bbox="938 254 1365 285"><i>Categories specific to Chemistry (10-12)</i></p> <ol data-bbox="873 323 1471 1873" style="list-style-type: none"><li data-bbox="873 323 1471 478">1. Objects and the materials they are made of have physical and chemical properties that can be used to describe and classify them.<li data-bbox="873 520 1471 634">2. Properties of mixtures depend upon the concentrations, properties, and interactions of particles.<li data-bbox="873 676 1471 789">3. Physical changes in states of matter due to thermal changes in materials can be explained by the Kinetic Theory of Matter.<li data-bbox="873 831 1471 905">4. The atomic model describes the electrically neutral atom.<li data-bbox="873 947 1471 1060">5. The periodic table organizes the elements according to their atomic structure and chemical reactivity.<li data-bbox="873 1102 1471 1215">6. Chemical bonding is the combining of different pure substances to form new substances with different properties.<li data-bbox="873 1257 1471 1331">7. Mass is conserved during any physical or chemical change.<li data-bbox="873 1373 1471 1446">8. Forms of energy have a source, a means of transfer.<li data-bbox="873 1488 1471 1602">9. Chemical reactions involve changes in the bonding of atoms with the release or absorption of energy.<li data-bbox="873 1644 1471 1717">10. Nuclear energy is a major source of energy throughout the universe.<li data-bbox="873 1759 1471 1873">11. Energy can be transferred within a system as the total amount of energy remains constant.