Chemistry Course Guideline

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Course Description:

The purpose of this course is to introduce students to the basic concepts of chemistry. The students will use problem-solving skills to expand their knowledge in the classroom and laboratory. This course meets and exceeds minimum standards as prescribed by the Georgia Performance Standards and helps satisfy the science requirements for the college seal diploma.

REQUIREMENTS: Math is an integral part of this science class therefore; students enrolled in this class should have completed algebra or should be taking it concurrently.

Course Schedule:

Unit 1:	Introduction		
		Chapter 1	Introduction to Chemistry
		Chapter 2	Matter
		Chapter 10	Energy
		Chapter 14.1	Intermolecular Forces and Phase Changes
		Chapter 5	Measurements and Calculations
Unit 2:	Atoms		
		Chapter 3	Elements, Atoms, and Ions
		Chapter 19	Radioactivity and Nuclear Energy
Unit 3:	Periodic Table		
		Chapter 3	Elements, Atoms, and Ions
		Chapter 11	Modern Atomic Theory
Unit 4:	Nomenclature and Bonding		
		Chapter 4	Nomenclature
		Chapter 12	Chemical Bonding
Unit 5:	Reactions		
		Chapter 7	Chemical Reactions
		Chapter 8	Classifying Reactions

MIDTERM EXAM *Midterm exam is not at the midterm of the semester*

Unit 6:	The Mole		
		Chapter 6	Chemical Composition
Unit 7:	Stoichiometry		
		Chapter 9	Chemical Quantities
*** Unit 8:**	Gases and Kinetics		
		Chapter 13	Gases - **OPTIONAL**
Unit 9:	Solutions and Acids/Bases		
		Chapter 15	Solutions
		Chapter 16	Acids and Bases

Grading:

Summative (unit tests)		50.0%
Formative (laboratory work, quizzes, projects)	20.0%	
Homework/practice (classwork, homework)	10.0%	
Final Exam	20.0%	
Total	100%	

Summative assessments (unit tests) will be given at the end of each unit studied to further assess student understanding of material. The summative assessment category includes, but is not limited to tests. Other assignments may be added to this category at the discretion of the teacher. **Assessments may be individual or group based and will count for 50.0% of the student's overall grade. A cumulative final will be given and will count as 20.0% of the student's overall grade.**

Formative assessments (laboratory work, quizzes and small projects) will be assigned on a regular basis. Quizzes will be given during units to assess student progress. Students will participate in laboratory work on a regular basis. The purpose of lab work is to further develop and support concepts learned in class through hands on activities. Lab sheets will be provided for some labs while others will require students to complete a formal lab report which can be handwritten or typed. Some labs will count more than others depending on the time/depth of information**. Laboratory work, quizzes and small projects will count for 20.0% of the final grade.**

Homework, class work, and practice will be assigned on a regular basis. The purpose of the work will be further practice and/or preparation for the next day's lesson, quizzes or tests. **Homework/practice will count for 10% of the final grade.**

Final Exam exemption will be granted for students with no more than 3 absences and a 90% rounded average.

Absences and Make-up Work:

In accordance with school policy, a student who is absent from school should bring an excuse signed by a parent/guardian or health care professional. Failure to document a reasonable excuse for an absence will result in an unexcused absence. Students whose absences exceed five parent excused absences during a semester, except those with a medical excuse, will be considered unexcused. Students with unexcused absences may be referred to the school social worker for intervention.

According to school policy, the time allotted for completion of missed assignments during an absence is one day. It is the student's responsibility to ask for missed assignments and to make arrangements to make-up tests after school. **ZEROS ARE GIVEN FOR WORK NOT MADE UP WITHIN THE ALLOTTED TIME.**

A student who is absent the day before a long-term project is due is still expected to turn in the project on the scheduled day, and a student who is absent the day a long term project is expected to turn in their project on the day they return.

Lab exercises missed during an absence typically cannot be rescheduled. **Makeup assignments will be posted on teacher website. Students should follow the directions given for the assignment. *Makeup labs are due within one week after the missed lab.* Lab makeup assignments are important as students are responsible for all major concepts covered in lab and are expected to answer all related test questions.**

*If school is officially closed due to bad weather on a scheduled test day or on a day when a major project is due, the test/assignment will be given/due the day school reopens.

Retake & Extra Credit Policy:

Students may retake ONE test during the last week of classes & before the final; to aid in their preparation for the final. If they passed the original test, the retake grade will automatically replace the original test grade even if the new grade is lower. If they did not pass the original test, then they will receive the higher of the two test grades. The retake will not be used to determine eligibility for exempting the final exam. Extra Credit will be offered throughout the semester, but sure to take advantage of it when offered, no additional extra credit will be given.

Late-work:

All assignments will be given in advance with a due date. It is the student's responsibility to turn in work on time. Typically assignments turned in late will be accepted up to **five** days with a lowered letter grade for each day late. However, there will be assignments that will be graded and discussed in class, these cannot be accepted late.

Lab Safety:

Each student will be instructed in laboratory safety and reminded of rules and procedures **(see attached parent/guardian signature page)**. Students can be seriously injured if safety procedures are not followed. Any student who does not comply with safety regulations or conducts themselves inappropriately during a lab session may receive a zero. Students may also receive a discipline referral to administration as well.

Required Materials:

- **A Basic Scientific Calculator w/log functions (cell phones CANNOT be used in place of a calculator)**
- **Paper & Pencil**
- Textbook – McDougal Littell "World of Chemistry" ($69.90). Students may choose a hard copy or e-edition of the text. All students are responsible for keeping the textbook/disk in good condition; if it is damaged or lost the student must replace it.
- Notebook – A three ring binder with dividers

Classroom Rules/Discipline:

Students are expected to follow school rules as stated in the student handbook. **Cell phones and other electronic devices should be placed in clear bag behind the classroom door prior to the start of class, NO cell phones should be out during class** unless approved by instructor**.**

Please be **Prompt** (be on time to class), **Prepared** (bring all materials to class), **Positive** (come to class with a good attitude and ready to learn), **Polite** (respect others), & **Productive** (use your time wisely).

Any student who does not follow this rules will receive one or more of the following consequences:

1. Verbal Warning
2. Student/teacher conference
3. Phone call to parent(s)
4. Teacher Detention before and/or after school.
5. Parent Contact
6. Referral to Counselor
7. Referral to an administrator

Academic Honesty:

The highest level of academic integrity is expected from all students. Any student who cheats, which includes accepting information from and/or giving information to others, utilizes any form of illegal academic aid during a

test or on a specific assignment, or changes answers or grades is in violation of academic ethics. Plagiarism is also considered a violation of this rule. Any violation of this policy will result in disciplinary action.

LAB SAFETY RULES AND PROCEDURES AGREEMENT

To ensure that science experiments are safe, positive learning experiences, students and parents should read, discuss, and sign this science safety rules and procedures agreement. The student must keep a signed copy of this agreement in their notebook.

1. Perform the experiments as directed. Do not do anything which is not part of an approved experimental procedure. Follow all instructions given by your teacher or adult supervisor.
2. Be properly prepared to do the experiment. Read the written procedures in advance and understand what you are going to do. Lack of familiarity wastes your time and is a major cause of injury. Know the hazards before you do the experiment.
3. Never work without adult supervision.
4. Wear appropriate protective equipment. Goggles and gloves should be worn as appropriate.
5. Learn the locations and operation of emergency equipment, including eyewash, fire extinguisher, fire blanket, body drench, sinks, call button, and first aid supplies. Know what to do in case of emergency.
6. Act in a responsible manner at all times. No horseplay or fooling around should occur in the lab or experimental area. Do not leave your lab partner/group area to socialize with others.
7. Wear leather shoes which cover the entire foot. No sandals or canvas shoes. Clothing should not be loose and floppy, especially in the sleeves. Some new fabrics are highly flammable and should not be worn. Arms and legs should be covered.
8. Tie back long hair o keep it away from flames and chemicals.
9. Never taste a chemical. Check odors only if instructed to do so, by gently wafting some of the vapor fumes toward your nose with your hand. Be sure your work area is adequately ventilated for your experiment.
10. Turn off your Bunsen burner or other heat source whenever you are not using it. Never let it operate unattended.
11. Treat burns immediately by putting the burned area under cold water for at least 15 minutes. Cold water markedly reduces the subsequent pain and blisters.
12. Read the chemical labels very carefully. Read them 3 times - when you pick it up, just before you use it, and after you are finished. Many mistakes – some dangerous – result from mixing the wrong chemicals. Review MSDS's when available.
13. Eating or drinking in the lab or experimental work area are forbidden.
14. Report all accidents, injuries, and close calls to your teacher/adult supervisor immediately.
15. Dispose of chemicals properly. Nothing goes down the drain. Containers should be available for waste chemicals. Broken glass goes in special receptacles.
16. Never return unused reagents to the reagent bottle. Be careful to take only what you need. Do not contaminate the reagents.
17. Clean up spills immediately. This includes water.
18. List your allergies on the bottom of this page. If the experiment deals with something to which you are allergic, consult with your teacher or adult supervisor.
19. Treat all chemicals with the respect they deserve. Know the hazards before you handle the material.
20. Never take chemicals, supplies, or equipment out of the lab without the knowledge and consent of the science teacher.
21. Do not touch materials from carts or designated for others. These may be set up for other students/classes.
22. Wash off chemicals splashed or spilled on your skin or body immediately and for 15 minutes. Remove contaminated clothing immediately. Notify your teacher or adult supervisor.
23. Clean your area, put away all equipment and reagents as directed, and wash your hands at the end of each work session.

----------PLEASE KEEP THIS IN YOUR CHEMISTRY NOTEBOOK AT ALL TIMES----------

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Dear Parent:

Please feel free to contact me at any time during the semester. For the quickest response, please contact me by email as listed at the top of the first page of the course syllabus. I will post grades as often as possible so that you will be aware of your student's progress throughout the semester. If you would like to be included in periodic class updates via email, please provide your address in the space above. I am looking forward to working with your child and hope this course will have a positive and lasting impact on their future. Thank you in advance for your support in this endeavor.

Nicole O'Mara

AFTER REVIEW OF THE ATTACHED SYLLABUS AND LAB SAFETY CONTRACT,
PLEASE SIGN, DETACH AND RETURN THIS PAGE.

I have read and agree to the rules as set forth in the Chemistry syllabus.

Parent Signature: _____ Date: _____

Email address: _____

Student Name:_____

Student Signature: _____ Date: _____

I have read and agree to the rules as set forth in the Lab Safety Contract.

Parent Signature: _____ Date: _____

Email address: _____

Student Name:_____

Student Signature: _____ Date: _____