**COURSE OUTCOME:**

* **Course Description:** The goal of Physical Science is for the student to gain a basic understanding of Chemistry and Physics. Chemistry is a study of matter – what matter is, what it is made of, and how it interacts with the world around it. Physics is the study of forces and how those forces cause change. Emphasis is focused on student problem-solving and group decision making processes.
* **Link to county curriculum**<http://science.knoxschools.org>
* **Link to state standards**<http://www.state.tn.us/education/ci/sci/index.shtml> (Physical Science Standards)

**INSTRUCTION:**

* **Topics and General Pacing**

|  |  |
| --- | --- |
| **Unit** | **Pacing** |
| Lab Safety, Measurement, and Graphing | 6 days |
| Motion, Speed, and Acceleration | 5 days |
| Newton’s Laws of Motion (forces) | 7 days |
| Energy, Work, and Power | 6 days |
| Simple Machines | 3 days |
| States of Matter and Classification of Matter | 4 days |
| Atoms and Periodic Table | 5 days |
| Chemical Bonding and Nomenclature | 12 days |
| Balancing Equations | 5 days |
| Kinetic Molecular Theory and Gases | 4 days |
| Solutions | 4 days |
| Acids and Bases | 3 days |

Reading and writing assignments will accompany each unit.

The number of days spent on each topic is approximate based on the amount of time needed by students to learn and master the material.

* **Materials Needed**

|  |  |
| --- | --- |
| 1 composition note book | Calculator\*\* |
| Loose Leaf paper | Highlighter |
| 3 Ring Binder | Red ink pen |
| Blue or black ink pen | Pencil |
| Tissue box |  |

**Textbook**: Glencoe Science *Physical Science* © 2002. The replacement cost for this book is $25.00.

**Fees**All chemistry classes have a $15.00 lab fee which will be used to purchase chemicals, food products for food labs, disposable lab materials (pipettes, matches, plastic materials) and supplies for activities such as model building or slime making. Fees can be paid with cash or check (checks are to be made payable to Carter High School for ONLY the $15 for this course).

* **Resources**
* ***School-based*:**
  + Use of the Internet to research topics, as well as computer programs to enhance learning skills, such as Microsoft Office, Holt Interactive Tutor, Discovery Education, Odyssey, and other Knox County approved software
  + Education films “Kilowatt Ours,” “The White Hole,” “Atom Bond”, “Green Energy”, “Who Killed the Electric Car”, “How Stuff Works”, “Nuclear Energy”
  + Annenberg Media’s “World of Chemistry” Series
  + Discovery Education videos (such as “Chemical Reactions,” “The Periodic Table,” “Greatest Discoveries in Chemistry,” etc.)
  + Apollo 13, Twister, and The Perfect Storm movies will be used as well.
* ***Outside*:** 
  + Annenberg Media’s “World of Chemistry” Series
  + Discovery Education videos online (such as “Chemical Reactions,” “The Periodic Table,” “Greatest Discoveries in Chemistry,” etc.)
  + Online media such as “The Periodic Table of Videos” , Teachertube.com, and Youtube.
  + Student-made materials to complete assignments on various topics throughout the semester
  + Guest speakers which may include community scientists, community volunteers, or community out-reach programs such as those offered by Ijam’s Nature Center
  + Articles from magazines such as Popular Science, National Geographic, Science, Scientific American, ChemMatters, and others as deemed relevant to the course
  + Any videos to be shown not included in the above, which are not already pre-approved for viewing by the Knox County Science department, will have a permission note sent home about them prior to their being shown.
* If you do not approve of a specific resource listed in this syllabus, please make your request to me in writing and an alternative assignment and/or materials will be provided. The request should include your name, the child's name, the specific activity/materials in which you do not want your child to participate or to which you do not want them exposed, and the nature of your objection.
* **Safety Procedures**Safety procedures must be followed at all times. A lab safety contract signed by both the student and parent is required **before** a student can participate in lab. Before students can participate in labs they will be required to complete a unit on safety and to pass a safety test.
* **Board Policy I-431 Issued**: 7/95 Revised 6/08 The Board affirms that it is essential that the teaching about religion—and not of a religion be conducted in a factual, objective, and respectful manner in accordance with the following: • Music, art, literature, or drama with a religious theme or basis are permitted as part of the curriculum for school-sponsored activities and programs, provided it is essential to the learning experience in the various fields of study and is presented objectively; KCS C & I Department PK-12 Syllabus/Parent Communication Guidelines Page 3 of 3 • The emphasis on religious themes in the arts, literature, and history shall be only as extensive as necessary for a balanced and comprehensive study of these areas. Such studies shall never foster any particular religious tenets or demean any religious beliefs; and • Student-initiated expressions to questions or assignments which reflect their beliefs or non-beliefs about a religious theme shall be accommodated. For example, students are free to express religious belief or nonbelief in compositions, art forms, music, speech, and debate.

**ASSESSMENT:**

* **Expectations and Skills**Through the experiences in this course, students will develop critical thinking and problem solving skills that can be applied to their everyday lives. Students will be given standards and skills to learn and master throughout the course based on the course curriculum, and will have many varied ways to demonstrate their mastery.
* **Grading Policy/Rubrics**

“Don’t be mad at the results you did not get with the work you did not put in” – Inky JohnsonAll Knox County Science courses hold to the State’s grading system as follows:

A 93-100

B 85-92

C 75-84

D 70-74

F Below 70

Grades will be determined based on a percentage of total points throughout a semester. The following breakdown of grading is subject to change:

Tests and quizzes: between 30-100 points

Labs: between 20 and 50 points

Notebook: between 50-150 points \*Depends on the length of a unit\*

Projects: (1) Simple Machines presentation – students will research the history and uses of the 6 simple machines (2) Adopt and Element: Complete project outside of class. Students will be asked to research and create a tissue box that represents an element of their choice. \*Due dates and research dates will be provided in advance for students verbally, as well as on School Fusion.

The End of Course (EOC) test taken as your final exam at the end of the semester will count as 25% of your grade. The remaining 75% of the grade will be based upon the student’s level of mastery of certain skills and standards as outlined in the county curriculum.

* **Assignments & Projects**

Students will be expected to participate in a reading activity/assignment at least once a week throughout the semester. Keeping a lab/class notebook is a class requirement.

* **Make-Up Work Policy/Late Work Policy**

**All make-up work is the student’s responsibility**. If the student is absent it is his/her responsibility to check with his or her group to receive the materials that were missed. The student will also check with their group and/or lab partners to receive any notes, verbal assignments, etc. Students will also be able to look at the teacher’s class notebook and/or lab notebook to receive information on what was missed. After students have exhausted these resources, they may check with the teacher for any other important information. Make-up test and quizzes should be taken care of before school or after school, with appointment, or during the designated tutoring time during lunch. A student has one week from the date of missed assignment, test, or quiz to make it up before the grade becomes a zero. If a student misses a lab assignment, an alternate assignment or research will be used as a make-up grade. Specific details will be discussed in class.

Late-work policy: For each day that an assignment is late, 5 points will be deducted from the total grade that the student receives.

* **Re do Policy**- See handbook for school wide

**Re-Do Policy for my class**

Tests- Must show attempt to improve

(this usually includes outlining chapters and rewriting notes)

Homework/Classwork-Cannot be redone

Labs- Cannot be redone

Projects- Cannot be redone

**GENERAL EXPECTATIONS:**

* **Students:**
  + - * **Attendance Policy:** The best way to be successful in chemistry is to BE IN CLASS! If you are absent, follow the make-up policy.
* **Classroom Policy/Procedures:** All school and county rules WILL BE followed, from cell phones to tardies to dress code and behavior.
  1. Come in prepared, and on time. Students should be seated and ready to begin when tardy bell rings. If not, then you are considered tardy.
  2. Students should not be a disturbance to others who are trying to learn. Talking when an instructor is teaching is inappropriate.
  3. Students should be respectful to their peers, visitors, teachers, and themselves. Students should also be respectful of any furniture, equipment, and other items that are in use in the classroom or lab.
  4. Students should follow all lab safety rules.
  5. Students are required to stay seated until the teacher dismisses the class.
  6. Students, who finish their work early, are to pick up a worksheet out of the folder to work on or peer tutor another student. This does not mean provide answers or do the work, but help to reteach the material using tips and clues. Follow the saying “Tip, Tip, Teach”.
  7. During classroom discussion, all students are expected to retain an open mind and be respectful of others opinions.
  8. Students should raise their hand, and ask for permission, if they feel the need to leave their seats.
  9. No bathroom breaks will be given in the first 15 minutes or the last 15 minutes of class. This goes for any need to leave the classroom. Bathroom breaks should be kept at a minimum. Students have 7 minutes to get to class, this is plenty of time to take care of any business. Each student will have 5 bathroom passes a semester. They will need their initials and the teacher’s to leave the classroom. Each student in the halls must have a hall pass. Passes cannot be transferred to another person or grading period.
* **Tardies** – A student is tardy if they ARE NOT IN THEIR SEAT when the tardy bell rings. Each student that is tardy must sign the tardy log and attend detention the following day during lunch.  
  **Electronics** **– Electronics such as cell phones and music players will not to be used in this class unless teacher approval is given. Cell phones are to be put away and unseen during this class**.  
  **Food** – Bottled drinks and food will be permitted as long as the classroom is clean. ABSOLUTELY NO FOOD OR DRINK will be allowed in the lab at any time.
* **Honor Code:** The Knox County Science statement about plagiarism is as follows:  
  According to Harbrace Handbook, 15th edition:

“Plagiarism is defined as presenting someone else’s ideas, research, or opinion as your own without proper documentation, even if it has been rephrased.  It includes, but is not limited to the following:

1.      Copying verbatim all or part of another’s written work;

2.      Using phrases, figures, or illustrations without citing the source;

3.      Paraphrasing ideas, conclusions, or research without citing the source;

4.      Using all or part of a literary plot, poem, or film without attributing the work to its creator.”

**Consequences Of Plagiarism**

Plagiarism is a form of stealing and academic fraud.  Students who are found guilty of plagiarism will have the option of either redoing the assignment within a specified time period and accepting a grade letter drop or taking a zero on the assignment.  Parents should be involved in making the decision.

* **Teacher:**
* **Communication Strategies**

**Contact Information:** Please email me at [jani.chollman@knoxschools.org](mailto:jani.chollman@knoxschools.org) or you may call the school at 933-3434 and leave a message. My plan period is during first block, 8:30am until 10:00am.

* **Portal Post Policy**

One way in which I am best able to communicate with students and parents is through Parent Portal. In order to give timely feedback, I will update grades at least once per week online. Please contact me with questions.

* **Intervention Strategies** If the course grade drops to failing, parents will be contacted and the student will be asked to participate in one or more of the following intervention strategies:
  + - **Tutoring:** Available on request.
* **Redo Policy**: The redopolicy applies to attempted work, not to be confused with missing work. If a student feels the need to redo an assignment, they will have that opportunity. A redo assignment will have the maximum value of 90%. Before being allowed to redo an assignment, the student must first have some remediation or tutoring of some type based on the teacher’s discretion. The assignment may not be exactly like the original assignment and must be done outside of the regular class time (such as during one hour lunch). There are some exclusions to this redo policy, such as: End of Course Exams, labs, performances, or any other assignment specified by the teacher ahead of time.

**\***Students may also be asked to participate in one of these intervention strategies even if they do not have a failing grade at the teacher’s discretion if the teacher feels it is in the student’s best interest for success to do so.

I have read the syllabus and agree to follow it. I will not receive my bathroom passes or be allowed to do labs until I have signed this syllabus. I also understand that I must sign a lab safety agreement to do labs.

Student signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I have read the syllabus and understand it. Any questions I have are listed below and will be answered through the e-mail provided or through the School Fusion. I also understand that I must sign a lab safety agreement for my child to do labs.

Parent/Guardian signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Questions:

Student Allergies:

E-mail address: