**2016-2017 Chemistry 1-2 Syllabus**

**Teacher:** Greg Burkhead

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**Course Description**

Chemistry is a laboratory science which emphasizes the study of the composition and changes in matter. There is a strong emphasis placed on measurement and problem solving, and the processes involved in physical and chemical changes. Models are used to explain laboratory observations, scientific laws and theories.

**Topics**

* Classifying matter
* Properties of matter
* Atomic theory
* Quantum theory
* Nuclear chemistry
* the Periodic Table
* Periodic trends
* Chemical bonding
* Chemical nomenclature
* Chemical reactions
* Stoichiometry
* Kinetic theory
* Gas laws
* Thermochemistry
* Solutions and equilibrium

**Materials Needed**

* A binder or folder to save homework, quizzes and handouts
* A notebook for warm-ups, notes and homework
* Blue or black ink pens and #2 pencils for each class

**Grading**

A letter grade will be determined by the following:

Notebook checks = 10%

Daily assignments = 20%

Labs = 20%

Quizzes = 20%

Exams = 30%

**Grading Scale**

A = 100-90%

B = 89-80%

C = 79-70%

F= 69% or lower

Students will have the option to retake exams and quizzes and lab reports may be resubmitted for a better grade after receiving feedback and completing revisions.

**Notebooks**

Each student should keep a dedicated notebook for chemistry work and notes. Students will use the notebooks for daily warm-up exercises, taking notes, writing reflections, and collecting lab data and observations. Notebooks will be checked at the end of each learning target and assessed a grade for completeness.

**Daily work**

Students will have an in-class assignment to finish for most learning targets to practice the material and aid in assessment of understanding. Any assignments not completed during class need to be completed as homework and submitted for credit the following class period. Assignments will be graded for completion and effort, and corrected to give feedback on progress towards the learning goal.

**Laboratory Investigations**

On a regular basis, students will participate in laboratory investigations. Labs will require technical writing which will be graded based on criteria sheets. If a student is absent for a lab assignment, it is their responsibility to contact the instructor and schedule a makeup. See the Portland Public Schools Science Safety Agreement at the end of this document for more information regarding lab policies.

**Quizzes and Exams**

As a way to assess progress in this course, quizzes and exams will be given regularly throughout the year. Quizzes are given for each learning target while exams will be given during the end of every unit. These quizzes and exams will be structured to only include content that was covered in the class. At the end of each semester, students will be given a final exam. The exams will cover all of the material given up to that point.

**Additional Support**

I am available after school for tutoring Wednesdays and Thursdays from 3:30 to 4:30. Please come see me if you need assistance with course material or if you have missed class and need make-up materials. Also note that all class notes and warm-up exercises are available on Google Classroom.

**Differentiation/accessibility strategies and support (TAG, ELL, SpEd, other)**

The differentiation strategies used in this course are based on the evidence (data) received through multiple forms of pre, ongoing, and formative assessments. Described here are the types of assessments used and specific differentiation strategies in place to meet the needs of ALL learners (including TAG, ESL, Special Ed...)

* Flexible grouping
* Questioning techniques
* Multiple access points to the content objectives
* Visuals and manipulatives
* Vocabulary Preview and Review
* Modification of instruction to provide appropriate challenge and instructional pacing for TAG students
* Frequent checks for understanding
* Cooperation with SpEd and ELL department for additional accommodations

**Behavior Norms**

As a learning community, we want to make sure that all students have the ability to be successful. As a result, the following behavior norms will be heavily reinforced throughout the school year:

* Demonstrate respect
* Engage
* Make positive choices
* Organize for social justice

**Additional Policies and Rules**

* Hall passes are for one student at a time, maximum 10 minutes. Hall passes should not be used more than once per period and never during the first or last 10 minutes of class.
* Electronics should be off and safely put away during class and will be confiscated after a warning if they are causing distractions from learning.
* You may eat and drink at your desk but NEVER in the lab space and you will be responsible for cleaning up afterwards.
* It is expected that you will be in your seat and prepared to learn when the bell rings.
* If you are more than 22 minutes late to class you will be marked absent.
* Horseplay is NEVER tolerated in the science classroom.

**Portland Public Schools Science Safety Agreement**

Science is a hands-on laboratory class. Many laboratory activities require the use of hazardous chemicals, materials, and equipment. Safety in the science classroom is the number one priority for students, teachers, and parents. To ensure a safe science classroom, a list of rules has been developed and provided for you in this science safety agreement. These rules must be followed at all times! Please read through these rules carefully.

1. Perform only those experiments and procedures authorized by the instructor.
2. Be properly prepared to conduct all experiments. Pay attention to laboratory safety instructions and be sure you understand what you are doing before you proceed.
3. Conduct yourself in a responsible manner at all times. No horseplay, or other fooling around should ever occur in the laboratory.
4. Wear proper eye protection at all times during laboratory activity as directed by the instructor. Additional safety equipment may be required by the instructor.
5. Know the locations of fire extinguisher, fire blanket, eyewash, safety shower, and first aid kit. Emergency exits and aisles must be kept clear at all times.
6. Confine or securely tie hair that reaches to the shoulders. Wear clothing appropriate to the laboratory as specified by the teacher.
7. Do not eat food, drink beverages, or chew gum in the laboratory area.
8. Work areas and equipment should be kept clean and tidy at all times. Bring only materials specified by your instructor to the work area. Other items such as books, purses, backpacks, etc. must be stored in an area designated by the instructor.
9. Dispose of all waste materials in an appropriate manner as designated by the instructor.
10. Read chemical labels very carefully. Make sure that you have the correct substance in the correct concentration. Check the label twice before removing any of the contents. Follow the instructor’s safety instructions for handling hazardous materials.
11. Do not return chemicals to their original containers unless you are specifically instructed to do so.
12. Always work in a well-ventilated area when using volatile substances or hazardous vapors.
13. Handle all chemicals with care. Never taste a chemical. Never draw material in a pipette by mouth. Check odors when instructed to do so by gently wafting some of the vapor toward your nose by hand.
14. Never take chemicals, supplies, specimens, or equipment out of the laboratory without the knowledge and consent of the instructor.
15. Never work alone in the laboratory without adult supervision.
16. Do not enter the laboratory stockroom(s) or storage areas without specific permission from your instructor.
17. Transport chemicals, materials and equipment properly as directed by the instructor.
18. Human body fluids pose potential dangers and can only be used under strict teacher supervision.
19. Report any accident (spill, breakage, etc.) or injury (cut, burn, etc.) to the instructor immediately.
20. Water spills on the floor need to be cleaned up immediately.
21. If a chemical should splash in your eye(s) or on your skin, immediately flush with running water from the eye wash station or safety shower for at least 15 minutes. Notify the instructor immediately.
22. Treat burns immediately by putting the burned area under cold water.

*Approved 9/13/2016*

**Student-Guardian-Teacher Agreement**

The purpose of the agreement is to make the student and guardians aware of class expectations and fully aware of and responsible for their own laboratory safety.

Please sign and have a parent or guardian sign both the attached contract.

I have read and understand the attached course description. I understand that:

* I need to attend class punctually, engage, and complete coursework to be successful
* All regulations outlined in the Jefferson student handbook will be enforced
* Mr. Burkhead is available for extra help and it is the student’s responsibility to schedule available time or make use of offered tutoring time
* Teacher instructions must be followed
* Protect eyes, face, hands, and body when involved in science experiments
* Carry out good housekeeping practices and keep my laboratory work area neat and orderly
* Know the location of first aid, eyewash and fire extinguisher
* For my own safety and the safety of others, conduct myself in a responsible manner at all times
* Report potentially hazardous conditions and behaviors

Student’s Full Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student’s Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Guardian’s Full Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Guardian’s Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Preferred contact phone #: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Preferred contact email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Is there any information Mr. Burkhead should know about this student?

Do you have any questions or concerns about this course?