

## **Chemistry In The Community – Dede Moore**

### **Attendance and Participation**

This is a lab and discussion intensive class. We need everyone to attend every class period, and come prepared to participate actively. You need to bring your three ring binder to class each day as well as your **periodic table** and **ion sheet** and a **calculator**.

Computers are welcome if they are used to enhance learning. Cell phones are not permitted. Phones will be confiscated and returned to students the first time. After that, confiscated phones will go to the office and must be picked up by a parent.

A notebook dedicated only for this class is recommended because we will accumulate handouts, articles, and labs, which you will use throughout the course. You are required to keep all written work until the end of the term.

**Only water !! No other food or drinks are permitted in class. Students are only permitted to leave class with a pass, or by signing out by the door.**

### **Course Description**

This is a survey course in introductory chemistry. Labs and activities are used to introduce students to new concepts through discovery rather than through lecture.

Problem solving will be an important part of every unit. Contemporary examples from daily life are used to illustrate fundamental ideas.

Chemistry in the Community takes a novel approach to organizing content, offering 7 unifying topics instead of breaking down learning into traditional chapters.

We will study 5 of these topics: Matter, Air, Petroleum, Water, and Food. Students will find many tangible applications for their new understanding in their daily lives.

Successful completion of this course will give you a sound foundation for college level chemistry and biology.

### **General Instructional Methods**

To help the student achieve the objectives outlined above, a variety of techniques will be used including lectures, small group discussions, homework assignments, in-class problem solving and laboratory experiences.

Typically, each topic will be introduced and placed in perspective in class, and explored further in laboratory. Class communication will include lectures, demonstrations, case-studies, PowerPoint, films and student presentations of literature research and lab work.

Students will be collecting water quality data on Happy Creek, which flows into the Sandy River in Oxbow Park. Happy Creek has been restored to its historic condition after many years of artificial diversion. Human disturbance of fresh water ecosystems will be explored in three units this year.

**CRL Outcomes:** **Teamwork:** Students will develop skills related to team work through group lab and research work

**Communication:** Students develop personal & group communication skills by presenting the results of labs and research projects to the class.

### Student Learning Outcomes

1. Discuss and apply key concepts of chemistry. Define, differentiate and use correctly, discipline specific vocabulary.
2. Apply the scientific method to answer chemical questions. Demonstrate a basic ability to conduct scientific research.
3. Demonstrate and apply techniques used by chemists to solve complex problems using basic algebra representing data with variables.
4. Find & use relevant scientific literature. Differentiate scholarly from popular sources. Organize, interpret & present scientific data to scientists & laypersons.

**Trimester 1:** Chemical & Physical Properties of Matter, Periodic Table, Ionic Compounds, Molar Mass, % Composition, Types of Reactions, Balancing Chemical Reactions

**Trimester 2:** Gas Laws, Phase Changes, Acids and Bases, Acid Base Neutralization, Titration, Air Pollution, Acid Rain, Alkane & Alkene nomenclature, Plastics (polymers), Plastic Toxicity

**Trimester 3:** Thermochemistry, Limiting Reactants, Solution Chemistry, Chromatography

### Practices That Support Success

1. Follow your calendar both for classwork and homework. Use it to plan ahead for pre-arranged absences.
2. Find a study buddy / lab partner. Support one another in the classroom, and at home during absences, projects, test preparation.
3. Ask a question everyday. We all expand our understanding when we share perceptions and misperceptions while learning.
4. Let me know when you need help. During class, after class, or by email from home, I will respond to your inquiries as fast as I can.

### Credit For Work

Work must be neat and legible or it will be returned ungraded. **NOT TOO SMALL !**

Work completed on time will receive a stamp from me in class. The stamp is to identify homework completed by the assigned due date. This information may be helpful during parent conferences to identify areas where students can improve in their study habits. Late work will be accepted without a grade penalty. **IT MUST Be SUBMITTED BEFORE THE END OF THE MIDTERM .**

All work missed must be made up without exception. I will assist you in scheduling makeup work, but it is the **student's responsibility to make arrangements**. Work for prearranged absences must be done in advance whenever possible. Keep in mind that many lab materials are perishable and making up labs quickly is in your best interest.

Extra credit can be earned by hand writing a quality summary of an article of substance (not a paragraph from the newspaper), visiting a science lab or museum, or producing a visual aide for use in the classroom. One extra credit assignment can be submitted each week for a maximum total of 5% of the final grade.

Assignments make up 20% of your grade. It is important to keep up with daily work so you can get the most out of each class. Labs make up 30% of your grade. Missing a lab can have a big effect on your grade, so be aware of upcoming labs and make arrangements to make up labs you are missing because of pre-arranged absences.

**Grading**

Assignments 20 %    Labs 30 %    Participation 10%    Tests 40%

**Please feel free to email** me at any time. This is the best and fastest way to reach me.

[dmoore@corbett.k12.or.us](mailto:dmoore@corbett.k12.or.us) You can also reach me at **(503) 261-4223**.

Student grades and missing worked can be viewed online at any time. Grades are updated once a week, and after exams.

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**Student**

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**Parent**

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