

Orange High School

To Educate, Elevate, and Empower Every Student!

Department of Science

Chemistry Course Syllabus

Instructor: Mr. Kelly
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Period: TBA
Room #: 240

Course Description

Chemistry is a year-long 5 credit course. This course addresses the study of the composition, properties, and reactions of substances. Fundamental concepts include atomic structure, the periodic table, chemical bonding, physical properties of materials, chemical quantities, chemical reactions, stoichiometry, and thermochemistry. The Chemistry course emphasizes laboratory investigation (experiences in the laboratory, classroom, or the field that provides students with opportunities to interact directly with natural phenomena or with data collected by others using tools, materials, data collection techniques, and models (NRC 2006, p. 3)). Throughout the process, students design investigations, engage in scientific reasoning, manipulate equipment, record data, analyze results, and discuss their findings. Through in-depth hands-on laboratory experiences with an emphasis on the utilization of mathematical, analytical, and data acquisition skills, key concepts are further examined.

Course Outline

Unit 1- ATOMIC STRUCTURE
Unit 2- THE PERIODIC TABLE
Unit 3- CHEMICAL BONDING
Unit 4- PHYSICAL PROPERTIES OF MATERIALS
Unit 5- CHEMICAL QUANTITIES
Unit 6 - CHEMICAL REACTIONS
Unit 7 -STOICHIOMETRY
Unit 8 - THERMOCHEMISTRY

Course Materials

Curriculum Resources: <https://www.orange.k12.nj.us/Page/23531>
Additional resources will be provided by classroom teacher.

Grading

To keep things organized all of the work you will be responsible for in a given week will be posted as one assignment on google classroom. However this “one” weekly assignment consists of multiple tasks, of which you will be working on a different one each day. Below is a description of the tasks you will engage in for a different chemistry topic each week.

Reading Quizziz - There will be an open book quiz based off of a reading that you will complete in class once a week. When finished, you must submit a screenshot of the score you received(copy and paste onto the weekly course document), with the date/time in the screenshot.

Phenomena Asking Questions - Once a week students will observe a phenomena which could be something found in nature, industry, an interesting story, or could even be a simple day to day experience. You will be required to ask questions about what you observed and research those questions to learn more about the topic. The writeup of this is to be typed on the weekly course document and should include all items mentioned on the rubric.

Lab Writeup - Two days a week students will work on a chemistry lab in class. This could consist of designing an experiment, conducting an experiment, collecting data, or summarizing and analyzing results. The lab writeup should be typed on the weekly course document and include all items mentioned on the rubric.

Lab and Quiz Game Participation - You will be evaluated based on your participation in labs(2 days per week) and quiz games(1 day per week - at the end of each week students will participate in a quiz game which could be jeopardy, chemistry board game, flash cards, or some other format to review what was learned the past week). The more you participate, the higher your grade for this task.

Below is the rubric that will be used each week for grading the weekly assignment. The rubric results will give you targetted feedback for areas of strength and areas for improvement which will help you develop/refine your skills over time.

/100

Reading Quizizz
/13

Screenshot of the quizizz score with the data/time in the screenshot must be pasted into the weekly assignment's google doc to receive credit.

Exemplary 13 pts Score between 90% and 100% on the quizizz.	Competent 10 pts Score between 70% and 90% on the quizizz.	Developing 7 pts Score between 50% and 70% on the quizizz.	Beginning 3 pts Score between 0% and 50% on the quizizz.	Incomplete 0 pts Quizizz not attempted.
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Phenomena Asking Questions
/13

Response must be typed in the weekly assignment's google doc to receive credit.

Exemplary 13 pts Description of phenomena, at least 2 questions related to the phenomena, and an explanation/solution to one of those questions are all included. All	Competent 10 pts Description of phenomena, at least 2 questions related to the phenomena, and an explanation/solution to one of those questions are all included. Sufficient	Developing 7 pts At least one of the either the description of the phenomena, questions about the phenomena, or explanation/solution to one of the questions is missing.	Beginning 3 pts Multiple (but not all) components of the assignment are missing.	Incomplete 0 pts The assignment was not attempted.
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Lab Writeup
/12

Lab writeup must be typed in the weekly assignment's google doc to receive credit.

Exemplary 12 pts All data is clearly organized in a data table, units are included for all numbers, post lab questions are answered in full sentences with thoughtful	Competent 9 pts Lab includes most of the components, but has one minor omissions such not including units for measurements, not being organized, or the response to a post lab question	Developing 6 pts Lab may have a major missing component, such as data table, procedure (if lab is self designed), or post lab questions.	Beginning 3 pts Multiple (but not all) components of the assignment are missing.	Incomplete 0 pts The assignment was not attempted.
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Lab and Quiz Game Participation
/12

Participation is evaluated based off of performance/conduct when lab and quiz game take place in class.

Exemplary 12 pts Fully engaged during the lab experiment and also during the quiz game. On task the entire class period, not on the cell phone, contributes to your group completing the task, shows leadership.	Competent 9 pts Fully engaged the vast majority of the time. May check cell phone for a minute, but quickly gets back on task, contributes to the group completing the assignment, but	Developing 6 pts On task for at least 50% of the time during the lab and quiz game. Works in the group, but may be too reliant on classmates for the assignment getting finished.	Beginning 3 pts Off task for most of the class period during the lab and/or quiz game.	Incomplete 0 pts Causes disruption, disrespects teacher or classmates, did not follow directions.
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Base Score
/50

Base score is 50%. Can be changed to 0% at teacher discretion for non excused absences (cutting class).

Fully/Mostly Pre... 50 pts Attends class.	Not Present 0 pts 3 or more non excused absences in one week.
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In the case of a shortened week due to snow days, holiday breaks, or standardized testing, the workload will remain the same for the week and some of the assignments may need to be completed for homework instead of inside the classroom.

Any work not finished in class will be the responsibility of the student to finish for homework. Being absent does not exempt a student from the required assignments.

All of the week's assignments are due on google classroom on Friday 11:59 pm of the week in which they are assigned. Work that is turned in after the teacher has already graded the assignment will not be accepted for credit.

Required Supplies

Each student is responsible for coming to class everyday with the following:

- Multiple pencils
- Chromebook(fully charged) with charger if needed.
- Notebook

Rules of Conduct & Guidelines

- **Be respectful** to yourself, your classmates, and your teacher(s).
- **Do not become a disruption or a distraction** in class. This will not be tolerated. We are all in school to learn. Every student has the right to an environment in which learning can take place. Any action that prevents others from learning is not fair to those who want to learn and will result in disciplinary action for those causing the disruption which could range from discussion after class, lunch detention, calling of parents, or even suspension depending on the situation.
- **Be on time.** Everyone should be inside the classroom before the bell rings.
- **Follow proper start up procedure.** A song will play at the start of each class. By the time the song is over it is expected for all students to be at their assigned desk, have required materials out for the day(either notebook and pencil or chromebook), and be prepared to start learning when the teacher begins instruction at the end of the song. Conversations should end when the teacher begins instruction so everyone can learn.
- **Do your class work with purpose and urgency.** Complete all classwork with the intention to LEARN something, not to just check it off a list. Every minute counts. Even a few minutes a day adds up to many minutes over a year. Be intentional and purposeful everyday in trying to meet your learning goals.
- **ALL Orange High School Rules and Procedures MUST be followed in class and out of class.**
Please visit our Orange High School Website to review the Student/Parent Handbook.

-----Please cut and return

To Students and Parents

With hard work and accountability, we can have all of our students succeed in Chemistry.

I have read the Chemistry Syllabus and its guidelines. I understand that I am responsible for upholding all requirements and guidelines in order to succeed in this course. I know what I have to do in order to receive the grade I want.

Student Name

Student Signature

Date

Parent Name

Parent Signature

Date

Parent Email Address