



| Course Name                      | Instructor                      | Instructor E-mail & Availability  |
|----------------------------------|---------------------------------|---|
| 10 <sup>th</sup> Grade Chemistry | Ms. Nickel                      | <a href="mailto:kenickel@aps.k12.co.us">kenickel@aps.k12.co.us</a><br>4 <sup>th</sup> and 5 <sup>th</sup> periods |
| Course Website                   | Class Meeting Times & Location: | Prerequisites   |
|                                  | Room 383                        | 9 <sup>th</sup> Grade Biology   |

### Course Description

Welcome to Chemistry 2017-2018 with Ms. Nickel! During the school year we will be actively exploring a lot of chemistry and how it relates to our world. This course spirals information, so we will touch on things repeatedly which will allow you to gather a deeper understanding of how interactions take place on a small scale and a large scale, and to see the world in a different perspective.

### Standards

#### Structures and Properties

HS PS 1-1 Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.

HS PS 1-8 Develop models to illustrate the changes in the composition of the nucleus of the atom and the energy released during the processes of fission, fusion, and radioactive decay.

HS PS 2-6 Communicate scientific and technical information about why the molecular-level structure is important in the functioning of designed materials

#### Chemical Reactions

HS PS 1-2 Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.

HS PS 1-7 Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction

HS PS 1-4 Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy

#### Energy

HS PS 3-4 Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperatures are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).

#### Engineering and Design

HS PS 1-3, 1-4 ESS 2 Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation. Communicate scientific ideas about the way stars, over their life cycle, produce elements.

### Learning Outcomes by Semester



**Semester 1**

**The spiraling Chemistry topics will be learned through:**

- Movie Special Effects
- Chemistry in various expressions of art
- The Chemistry in Toys

**Semester 2**

**The spiraling Chemistry topics will be learned through:**

- Putting on a Chemistry Show
- Cooking with Chemistry
- Crime Scene Investigation

**Required Supplies**

- Spiral Notebook just for Chemistry (to be kept in class)
- Pen or Pencil

**Grading**

Students will be graded on a 4 point scale for all assignments

| Point                    | Letter Grade | Explanation   |
|--------------------------|--------------|---|
| 3.0-4.0                  | A            | In addition to the performance score of 3.0, the student demonstrates in depth inferences and applications that extend beyond what was taught.                              |
| 2.5-2.99                 | B            | There are no major errors or omissions regarding any of the information and/or processes (simple or complex) that were explicitly taught. This level is mastery             |
| 2.0-2.49                 | C            | There are no major errors or omissions regarding the simpler details and processes, but there are major errors or omissions regarding the more complex ideas and processes. |
| 1.0-1.99                 | D            | With help, the student demonstrates a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.                  |
| Below 1.0 or No Evidence | F            | Even with help, the student cannot demonstrate understanding of the simple details.   |

**School Policies**

**REQUESTS FOR HOMEWORK**

Students requiring homework assignments due to extended excused absences (three days or more) should initially contact the attendance office. The attendance office will notify teachers and collect assignments from individual teachers. Assignments should be ready for pick up 24 hours after a request has been made. Please call the attendance office to check homework status.

**MAKE-UP WORK DURING ABSENCES**

Any time a student misses a class for any reason whatsoever, that student will be expected to contact each teacher and complete the make-up work in order to achieve the learning objective. This includes field trips, school activities, suspensions, group sessions, trancies, and the like. Make-up work is required and students who have been absent from class must request make-up work from the teacher no later than the next class meeting. Teachers will determine a reasonable amount of time for make-up work when students are absent, using a two days for every one day absent guideline.

Teachers may provide an "alternative" learning experience for make-up work to any student who requests it upon returning to class. For example, a student may have been absent from a class at which the daily learning objective was achieved by means of a class discussion. At the teacher's sole discretion, students who were absent during that discussion might be assigned a two or three-page written essay due three or four days after



the student's return to class as an 'alternative' learning experience for that objective.

Teachers will give academic credit to all make-up work that complies with the above guidelines. The only exception is that teachers have the choice whether or not to give academic credit to the make-up work from an unexcused absence. If the absence was unexcused, the teacher should provide feedback but is not required to give credit for the work.

#### TARDY POLICY

After three tardies, teachers will conference with the student and contact home. After 5 tardies, students can be referred to the Learning Center and additional consequences may be assigned.

#### PASSES

Students who leave the classroom or are excused from class must have a pass with correct validation by the teacher. School officials may send for a student using an authorized Administrative Pass. Students who are without official passes will be subject to disciplinary action. Passes will not be given in the first 10 minutes or last 10 minutes of class.

#### NON-ACADEMIC TECHNOLOGICAL DEVICES

Aurora Public Schools believes in providing environments that optimize learning and teaching and are safe, secure, and well maintained. As such, all personal electronic devices\* shall not be seen nor heard during the school day in academic areas of the building from 7:25 A.M. to 3:15 P.M. \*Cell phones, iPods, headphones, portable speakers, MP3s, tablets, cameras, etc. **Aurora Central High School and Mrs. Palme are not responsible for lost, stolen or damaged electronic devices.** This includes electronic devices that are confiscated by staff. Aurora Central High School reserves the right to not investigate lost, stolen or damaged electronic devices.

### Classroom Policies

**Classroom Policies:** Building policies are found in the student/parent handbook and can be found on the website. The following additional classroom policies are enforced:

- All classroom assessments are due on the date and time assigned by the instructor. It is the responsibility of the student to be on top of make up or missing work! Students who are absent have 2 class days to make up the assessment. Don't be afraid to ask!
- Missed formative assessments and labs may be given an alternative written assignment and a similar amount of time to complete.
- All formative and summative assessments must be completed in order to be eligible to receive science credit.
- **Lab safety will be strictly enforced.** Students who refuse to follow lab safety rules will be found insubordinate and **removed from the lab** activity and receive a zero.



**Aurora Central High School Syllabus 2017-18**

I have carefully read the expectations of this course and agree to support the goals and initiatives of the course.

I will NOT have my cell phone out in class.

Student name: \_\_\_\_\_(print)

Grade \_\_\_\_\_ Period \_\_\_\_\_

Student Signature: \_\_\_\_\_

Parent/Guardian Name: \_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_

Parent/Guardian Phone Number: \_\_\_\_\_

Parent/Guardian Email: \_\_\_\_\_