FVS Chemistry A Syllabus

Course Description
Chemistry is the study of matter (anything that has mass and takes up space(!)) and the changes it undergoes. The course is aligned to the Chemistry Georgia Performance Standards, and the curriculum includes concepts such as the structure of atoms, structure and properties of matter, and the conservation and interaction of energy and matter. Students investigate chemistry concepts through experience with experiments and work using the processes of inquiry.

Course Objectives
Throughout the course, you will meet the following Georgia Performance Standards: **SC1.** Students will analyze the nature of matter and its classifications. a. Relate the role of nuclear fusion in producing essentially all elements heavier than helium. b. Identify substances based on chemical and physical properties. c. Predict formulas for stable ionic compounds (binary and tertiary) based on balance of charges. d. Use IUPAC nomenclature for both chemical names and formulas: • Ionic compounds (Binary and tertiary) • Covalent compounds (Binary and tertiary) • Acidic compounds (Binary and tertiary) **SC2.** Students will relate how the Law of Conservation of Matter is used to determine chemical composition in compounds and chemical reactions. a. Identify and balance the following types of chemical equations: • Synthesis • Decomposition • Single Replacement • Double Replacement • Combustion b. Experimentally determine indicators of a chemical reaction specifically precipitation, gas evolution, water production, and changes in energy to the system. c. Apply concepts of the mole and Avogadro’s number to conceptualize and calculate • Empirical/molecular formulas, • Mass, moles and molecules relationships, • Molar volumes of gases. d. Identify and solve different types of stoichiometry problems, specifically relating mass to moles and mass to mass. e. Demonstrate the conceptual principle of limiting reactants. f. Explain the role of equilibrium in chemical reactions. **SC3.** Students will use the modern atomic theory to explain the characteristics of atoms. a. Discriminate between the relative size, charge, and position of protons, neutrons, and electrons in the atom. b. Use the orbital configuration of neutral atoms to explain its effect on the atom’s chemical properties. c. Explain the relationship of the proton number to the element’s identity. d. Explain the relationship of isotopes to the relative abundance of atoms of a particular element. e. Compare and contrast types of chemical bonds (i.e. ionic, covalent). f. Relate light emission and the movement of electrons to element identification. **SC4.** Students will use the organization of the Periodic Table to predict properties of elements. a. Use the Periodic Table to predict periodic trends including atomic radii, ionic radii, ionization energy, and electronegativity of various elements. b. Compare and contrast trends in the chemical and physical properties of elements and their placement on the Periodic Table.
Student Expectations
This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 1 hour per day online working on the following activities:
- Interactive lessons that include instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including labs, quizzes, tests, and cumulative exams Remember - you are trying to LEARN and UNDERSTAND from what you are doing. Do what you need to do to help (i.e. take notes, outline, etc.) - don’t just rush through the material. Ask questions when you don’t understand something.

Communication
You and your teacher will communicate regularly through email, texts, phone calls, and online meetings (such as Skype/Facetime). Please check and respond to your messages daily. If you ever have any questions, don't hesitate to reach out to your teacher.

Grading Policy
You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>15%</th>
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<tbody>
<tr>
<td>Lesson Quizzes</td>
<td>10%</td>
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<tr>
<td>Unit Tests</td>
<td>20%</td>
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<tr>
<td>Essays</td>
<td>N/A</td>
</tr>
<tr>
<td>Labs</td>
<td>10%</td>
</tr>
<tr>
<td>Projects</td>
<td>30%</td>
</tr>
<tr>
<td>Other Assignments</td>
<td>N/A</td>
</tr>
<tr>
<td>Cumulative Exam</td>
<td>15%</td>
</tr>
</tbody>
</table>

All of the grades that you receive online will be recorded in Edgenuity. To view your grades in Edgenuity, click on: organizer; reports; then, scores and feedback.

Fulton County Schools Grade Recovery Policy
Opportunities designed to allow students to recover from a low or failing cumulative grade will be allowed when all work required to date has been completed and the student has demonstrated a legitimate effort to meet all course requirements including attendance. Students should contact the teacher concerning recovery opportunities. Teachers are expected to establish a reasonable time period for recovery work to be
completed during the semester. All recovery work must be directly related to course objectives and must be completed ten school days prior to the end of the semester.

Due Dates
The Fulton Virtual School’s policy is to allow students to work at an individualized pace in the course. You are expected to work at your own pace and have the course finished by the last day of the class. You are expected to show the same level of commitment as you would in your traditional school setting.

Scope and Sequence
When you log into the Virtual Classroom, you can view the entire course map, which provides a scope and sequence of all topics you will study. Clicking a lesson’s link in the course map leads to a page listing instructional activities, assignments, and learning objectives specific to that lesson. The units of study are summarized below.

Unit 1: Atomic Structure and the Periodic Table
Unit 2: Atomic Structure and the Periodic Table
Unit 3: Chemical Bonds and Compounds

Georgia Performance Standards
This course is correlated to the Georgia Performance Standards. If you would like more information on the GPS, please visit: https://www.georgiastandards.org/standards/Georgia%20Performance%20Standards/Chemistryrevised2006.pdf

Fulton Virtual School Academic Integrity Policy
In a virtual learning environment, honesty and integrity are integral traits for academic success. At Fulton Virtual, we believe that all students must show integrity in the completion and submission in all aspects of the academic experience. Therefore, no forms of cheating, assisting others in cheating, and/or plagiarism (passing off the work of others as if it is your own) will be tolerated.

When collaboration is necessary to complete tasks and projects, Fulton Virtual School instructors will provide students with advance notice. Thus, all work is considered
an individual assignment unless otherwise noted. The following list of dishonest behaviors has been compiled to assist you. This list is by no means exhaustive, and each infraction of academic dishonesty will be handled the virtual instructor on an individual, case-by-case basis.

**Dishonest behavior includes, but is not limited to:**

1. **Plagiarism.** Plagiarism can be defined as the inclusion of another’s ideas, words, expressions, or data in writing or presentation without properly acknowledging the source.

2. **Unauthorized use off another person's password/login.** Student logins/passwords are confidential information that should not be shared with others.

3. **Cheating.** Cheating can be defined as the act or attempted act of deception by which a student seeks to misrepresent his submitted work as uniquely his own completed without assistance. Cheating includes copying another student’s work and submitting it as your own.

4. **Impersonation.** Performing work or taking an examination for another student or allowing someone to do so for you.

5. **Falsification and/or misrepresentation of data.** This can be defined as the submission of false or contrived data or sources.

6. **Computer crimes.** This may include damaging computer programs, hacking, constructing viruses, introducing viruses into a system, copying programs, etc.

**Academic dishonesty will result in one or more of the following actions:**

- Loss of grade points
- Removal from the course
- Failure to receive credit for the course
- Loss of eligibility to earn credits through Fulton Virtual Schools

Fulton Virtual School instructors have the authority to require that students perform other tasks or undergo additional assessments in proctored situations. If a Fulton Virtual School instructor suspects that there is a problem with academic integrity, the administrators of both the local school and Fulton Virtual School will
be informed. Failure to follow these guidelines may result in removal from your virtual course without further warning.

*All Fulton Virtual Students Must Agree and Adhere to the Following Academic Integrity Guidelines:*

- I understand and will support and will abide by the guidelines set for in the Fulton Virtual School Academic Integrity Policy.
- I will not personally cheat (i.e., use unauthorized materials in completing my assignments and assessments), and I will not help others cheat.
- If I become aware of anyone else’s cheating or use of unauthorized materials (or any other violations of Fulton Virtual School’s Academic Integrity Policy, I have a personal responsibility to report the matter to an instructor or administrator.