

# James Clemens High School

11306 County Line Road  
Madison, AL 35756



**Phone: 256-216-5313**

Extension: 95103

Email: [kfsteele@madisoncity.k12.al.us](mailto:kfsteele@madisoncity.k12.al.us)

## Course Syllabus

**CHEMISTRY I - FALL 2022**

**Instructor: Mrs. Kristen Steele**

**Dear Parent/Guardian,**

I feel fortunate to have your child in my class this semester. Chemistry is my favorite subject! It is an engaging, hands-on course that will challenge your students to learn using modeling, computation, and lab instrumentation. By the end of the course, I know your child will have a greater sense of understanding of the topic and confidence they can succeed in further sciences in high school and beyond. With your child, please read the policies in this document, then fill out and sign the first page of the syllabus. **YOUR CHILD WILL THEN TAKE A PICTURE AND UPLOAD A COPY OF THE SIGNED SYLLABUS AS AN ASSIGNMENT on SCHOODOLOGY by Friday, August 5, 2022.** I hope that you will contact me should you have any concerns about the progress of your son/daughter or any aspect of the instruction. I look forward to having a great year!

Thank you,

*Kristen F. Steele*

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**My child and I have read and discussed the classroom syllabus.**

Student Name (Print) _____	Date _____
Student Signature _____	Date _____
Parent/Guardian Name (Print) _____	Date _____
Parent/Guardian Signature _____	Date _____
Email Address(es) _____	
Phone number(s) _____	_____
Cell	Home
	Work

Please check this box if your student needs financial assistance purchasing the required school supplies. ☐

**Note:** Is there any additional information about your student that might be helpful to know as I strive to serve them well as a teacher this semester? Feel free to share below or send me an email. (I really will read what you say and try to apply it as best I can.) \_\_\_\_\_

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**Course Syllabus**  
**CHEMISTRY - FALL 2022**  
**Instructor: Mrs. Kristen Steele**

**Course Description:**

This course introduces the fundamental concepts of general chemistry and provides a study of the structural composition and behavior of matter. Focus areas include: scientific measurement and analysis, atomic structure, chemical nomenclature, balancing equations, stoichiometry, gas laws, solutions, and acids and bases. While focusing on these areas, students will also learn basic laboratory skills and how to perform experiments to confirm course concepts. Students should have a strong background in mathematics, as students will learn and utilize mathematical reasoning skills to perform calculations involving chemicals and their reactions. In addition, students should be proficient in solving algebraic equations, graphing, and using mathematical principles in real-world applications.

18 weeks/1 credit

**Prerequisite:** Algebra I or Geometry with Data Analysis

**Corequisite:** Algebra I with Probability

**Course Objectives:**

**Students will:**

- Differentiate among pure substances, mixtures, elements, and compounds.
- Describe the structure of carbon chains, branched chains, and rings.
- Use the periodic table to identify periodic trends, including atomic radii, ionization energy, electronegativity, and energy levels.
- Describe solubility in terms of energy changes associated with the solution process.
- Use the kinetic theory to explain states of matter, phase changes, solubility, and chemical reactions.
- Solve stoichiometric problems involving relationships among number of particles, moles, and masses of reactants and products in a chemical reaction.
- Explain the behavior of ideal gases in terms of pressure, volume, temperature, and number of particles.
- Distinguish among endothermic and exothermic physical and chemical changes.
- Distinguish between chemical and nuclear reactions.

**Classroom Rules and Expectations:**

**General Expectations:**

1. BE ON TIME. Tardy means that you are not in the room and getting seated when the bell rings. JCHS policy governs the consequences for tardiness.
2. BE RESPECTFUL: Practice courtesy and mutual respect. Treat others as you would like to be treated. The classroom and laboratory is to be regarded as a safe and supportive learning environment.
3. BE PREPARED: Mentally focused on reaching your goals and following class expectations; and physically bringing proper materials EVERY DAY.
4. BE RESOURCEFUL: Thoroughly review assignments, videos, textbooks, and notes to answer questions before asking me.

**Accommodations:** Requests for accommodations for this course or any school event are welcomed from students and parents.

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**Concerning Laptop Utilization:** Student laptops should not be hard-wired to the network or have print capabilities. 2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers. 3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops. 4. Laptops and other electronic devices will be used at the individual discretion of the teacher.

## Grading Policy:

Test grades will account for 70% of the 9-weeks grade, with the remaining 30% being determined by quiz/daily grades. The grading scale is as follows: A (90-100%), B (80-89), C (70-79), D (65-69), and F (below 65).

Grades will be a reflection of mastery of the standards. Make sure all absences are excused as class work can be made up and graded for excused absences only. The final exam counts for 20% of the final grade.

**Missed Assignments:** If you are present in class but do not turn in an assignment by the due date, I will put a 0 in the gradebook. You are allowed to turn in assignments late; however, 30% of the grade will be deducted for being late. **Excused** absences will be granted 3 days to complete and turn in any missed assignments. After 3 days, the assignment will be counted as late unless extenuating circumstances are discussed with me. Assignments missed due to an **unexcused** absence will be given a 0 in accordance to Madison City Schools policy. Please make sure to turn in an excuse for every absence within 3 days!

## Make-Up Work Policy:

Make-up tests are only allowed for excused absences. Make-up test time is once per week on a day determined by the instructor. Please, plan with Mrs. Steele to make up a test. Make-up work for daily assignments can be located on Schoology.

## Course Materials:

- 1" 3 ring binder (for class notes)
- 200 sheets of loose-leaf college ruled paper
- 3-prong folder with pockets (for holding lab reports)
- Black or blue ink pens
- Highlighter
- Pencil
- Scientific calculator or graphing calculator
- Laptop, Chromebook or other smart digital device. Several assignments require the use of Schoology and EdPuzzle which are accessed in class using a device. Please let me know if you do not have any type of device to bring to school.
- (Optional) Nitrile lab gloves in a sandwich bag with your name written on them (NO LATEX)
- (Optional) Loose-leaf graph-ruled paper for lab work

## Texts/Required Readings:

Text: World of Chemistry, CENGAGE Learning, Zumdahl and DeCoste, 2013

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**CHEMISTRY – FALL 2022**  
**Instructor: Mrs. Kristen Steele**

<b>18 - WEEK PLAN*</b>	
<b>WEEK 1</b>	<b>Lab Safety and States of Matter</b>
<b>WEEK 2</b>	<b>Precision, Accuracy, and Confidence in Measurement</b>
<b>WEEK 3</b>	<b>Relating Mass and Volume</b>
<b>WEEK 4</b>	<b>Heat Transfer and Temperature</b>
<b>WEEK 5</b>	<b>Heating Curves and Phase Diagrams</b>
<b>WEEK 6</b>	<b>Gas Laws</b>
<b>WEEK 7</b>	<b>Atoms and Molecular Structure</b>
<b>WEEK 8</b>	<b>Intermolecular Forces</b>
<b>WEEK 9</b>	<b>Isotopes and Electron Configuration</b>
<b>WEEK 10</b>	<b>Periodic Trends and Bonding</b>
<b>WEEK 11</b>	<b>Empirical and Molecular Formulas</b>
<b>WEEK 12</b>	<b>Stoichiometry and Chemical Quantities</b>
<b>WEEK 13</b>	<b>Chemical Quantities</b>
<b>WEEK 14</b>	<b>Molarity and Solutions</b>
<b>WEEK 15</b>	<b>Types of Chemical Reactions and Titrations</b>
<b>WEEK 16</b>	<b>Endothermic and Exothermic Reactions</b>
<b>WEEK 17</b>	<b>Equilibrium Reactions</b>
<b>WEEK 18</b>	<b>Review</b>

\* This syllabus serves as a guide for both the teacher and student; however, during the term it may become necessary to make additions, deletions or substitutions.