

Lake Dallas General Chemistry Syllabus 2025-2026

Science Teacher: Rachelle Stephenson

Email: rcolestephenson@ldisd.net

Phone: (940) 497-4031

Conference Time: [e.g., 1:00–2:00 PM, Monday–Friday]

Best Way to Reach Me: Email or call the school office. I'll respond within 24 hours on school days.

Welcome to Chemistry at Lake Dallas High School. I am eager to begin a fun and exciting new year. This syllabus outlines the course plan for your child's class this semester, including key topics, expectations and how you can support their success. This document serves as the instructional plan and is available for your review. I look forward to working with you and your child. **Parents: Please make sure that your email address as well as your phone contact information is up to date with the office.**

Materials: Notebook, writing utensil and online textbook, which is found on *Classlink*.

Communications: I use Canvas for weekly schedules and Google Classroom occasionally for class projects. Our class work is generally on paper or in our online textbook. Communication with students and parents occurs through *parentsquare*.

Course Outline: Pacing changes may occur.

1 st Nine Weeks	
Chapter 0: The Process of Science	1.A, 1.B, 1.H, 1.G, 2.A, 2.B, 2.D, 3.C, 3.D, 4.A, 4.B Students define science and scientific inquiry and learn how scientific investigations have changed over time. They will distinguish between scientific hypothesis and theory. They use science and engineering practices used to design investigations or design solutions.
Chapter 1: Introduction to Science	1.E, 1.F, 1.G, 2.B, 2.C Collect, organize, analyze quantitative and qualitative data. Use lab reports, diagrams, charts and other statistical features to recognize patterns, sources of error and limitations.
Chapter 2: The Nature of Matter	5.A, 8.C, 9.A, 10.A, 11.B Explain development of the Periodic Table over time using physical and chemical properties. Calculate percent composition of compounds. Interpret, write and balance chemical equations. Distinguish between chemical reactions, mixtures and solutions.
Chapter 3: The Structure of the Atom	6.A, 6.B, 6.D Construct models that show the development of modern atomic theory over time using scientific discoveries from famous scientists: Dalton, Thomson, Rutherford, and Bohr. Describe the structure of the atom and calculate atomic mass using isotopic composition.
Chapter 4: Electrons in the Atom	6.A, 6.B, 6.C, 6.E Describe structure of atoms, ions including masses, electric charges, protons, neutrons and electrons. Express arrangement of electrons using electron configuration and Lewis Dot. investigate EM Spectrum and relate it to quantization of energy in emission.
2 nd Nine Weeks	
Chapter 4: continued	
Chapter 5: Periodic Table and Periodic Law	5.A, 5.B, 5.C Explain development of Periodic Table. Predict properties of the different chemical families. Analyze and interpret elemental data, including atomic radius, mass, electronegativity, ionization and reactivity trends.
Chapter 6: Ionic Compounds	7.A, 7.B, 7.D Name and write the chemical formulas for ionic and covalent compounds. Analyze the properties of ionic, covalent and metallic substances.

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Chapter 7: Covalent Bonding	6.E, 7.A, 7.B, 7.C, 7.D, 12.A Explain how covalent bonds form. Determine bonds and structure in a compound from its name. Determine the shape of molecules by structure including polar and nonpolar.
Chapter 8: Chemical Reactions	9.A, 9.B, 11.D Model chemical reactions. How are chemical reactions modeled? Recognize the different types of chemical reactions.
Chapter 9: The mole	8.A, 8.B, 8.C, 8.D Lesson 9.1: Why is it useful to group large numbers of things? This set of lessons explores key concepts about the mole and chemical composition. Students learn how to calculate molar mass, interpret mole ratios from chemical formulas, and understand the difference between empirical and molecular formulas. They also explore how to determine the amount of water in a hydrate through percent composition and mole ratios.
3rd Nine Weeks	
Chapter 10: Stoichiometry	9.C, 9.D This set of lessons covers how balanced chemical equations show the relationships between reactants and products in a chemical reaction. Students learn to calculate the amounts of substances involved using mole ratios. They also explore how to identify limiting and excess reactants. Finally, the difference between theoretical and actual yield is examined to understand reaction efficiency.
Chapter 11: Gasses	9.C, 10.A, 10.B, 10.C These lessons focus on the behavior and properties of gases. Students explore why different gases behave similarly and how temperature, pressure, and volume are interrelated. They learn how gas laws account for changes in the amount of gas and how to apply these laws to real-world situations. The concepts also include calculating the volumes of gaseous reactants and products in chemical reactions.
Chapter 12: Liquids and Solids	7.D, 13.C These lessons explore the structure and behavior of different states of matter. Students examine the forces that attract molecules to each other and how these interactions differ between gases, liquids, and solids. They compare particle arrangements in solids and fluids and learn how these affect physical properties. The lessons also cover how energy transfers lead to phase changes such as melting, freezing, and evaporation.
Chapter 13: Mixtures and Solutions	11.A, 11.B, 11.C, 11.E, 11.F These lessons focus on mixtures and solutions. Students learn the difference between uniform and non-uniform mixtures and how to describe solution concentration. They explore why certain substances dissolve in water based on molecular interactions. The lessons also explain how adding solutes like salt can affect physical properties, such as lowering the freezing point of water.
Chapter 14: Energy and Chemical Changes	13.A, 13.B, 13.C, 13.D These lessons explore the role of energy in physical and chemical changes. Students learn what energy is, how to measure thermal energy changes, and how thermochemical

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	equations represent energy flow in reactions. They also examine methods for calculating energy changes when direct measurement isn't possible. Finally, the lessons cover factors that determine whether a chemical reaction will occur spontaneously.
4th Nine Weeks	
Chapter 15: Chemical Equilibrium	9.A, 11.D These lessons focus on chemical equilibrium and how reactions can proceed in both forward and reverse directions. Students learn how systems respond to changes in conditions to restore equilibrium. They also explore the connection between equilibrium and the solubility of compounds.
Chapter 16: Acids and Bases	12.A, 12.B, 12.C, 12.D, 12.E These lessons explore the properties and behavior of acids and bases. Students learn how to identify acids and bases, distinguish between strong and weak ones, and understand the pH and pOH scales. They also examine what occurs during acid-base reactions, including neutralization.
Chapter 20: Nuclear Chemistry	14.A, 14.B, 14.C These lessons focus on nuclear chemistry and the behavior of atomic nuclei. Students learn about radiation, the changes that occur in unstable nuclei, and the relationship between mass and energy. They also explore how this relationship explains the large amounts of energy released in nuclear reactions. Practical applications of nuclear processes, such as energy production and medical uses, are also discussed.

Grade Policy: 40% – MAJOR GRADES: TESTS & PROJECTS

60% – MINOR GRADES: LABS (INVESTIGATIONS), QUIZZES, DAILY WORK

Classwork: If the **daily assignment** is not finished during class, the student is required to complete the assignment at home for homework to be turned in on the due date given. **Projects** are a part of the curriculum. Deadline, expectations, and grading criteria are published well in advance on Canvas and in the classroom.

Late Work: Late work is defined as any assignment or project not turned in by the designated due date. Any late work, including missing assignments due to an absence, is a “0” in the gradebook until the work is turned in and graded. Grading late work can be delayed because current work takes priority over late work. Any assignment submitted after a deadline, has a maximum penalty of ten (10) points per class meeting deducted from the grade with a maximum of 30 points deducted. Student work with no name stays on the “missing work” board for 1 week, then recycled.

Make Up Work for Absences:

For an excused absence, the student is given a reasonable amount of time to make up the work missed; one class day for each day absent. **Work assigned prior to the first day of absence is due the day the student returns to class.** It is the student's responsibility to make up for any work missed.

Mrs. Stephenson Classroom Expectations:

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All students deserve a safe and productive classroom to learn and develop to their full potential.

1. **Follow Rules & Be Safe.** Adhere to rules and guidelines in the student handbook, classroom rules and safety guidelines outlined in the safety contract..
2. **Be Prepared.** Have materials and assignments ready at the beginning of class.
3. Be a **respectful** and **active listener**:
4. Be **Proactive**
5. Give **100%** and take **Pride in** your work because it reflects on you.
6. Reduce Distraction. **CELL PHONES ARE ON SILENT AND STORED IN BACKSPACE DURING CLASS.** Per HB1481, use of cell phones and all other personal communication devices are prohibited during the course of the school day. This includes airpods and smart watches. The district's and state's policy regarding cell phones, smart watches, and airpods will be followed in my classroom, which means the device is collected and sent to the office.

Consequences for not following classroom or school policies:

1st Offense: Verbal Warning and discussion with the teacher

2nd Offense: Teacher detention with me and parent contact (depends on the offense) along with a reflection sheet or make-up work.

3rd Offense: Parent contact and office referral

We are very proud of our school. In an effort to maintain safety, lab quality and classroom decorum I will not tolerate horseplay, vandalism, equipment abuse or tampering with emergency equipment. This also includes any tampering with the school's issued iPad. Science equipment or material use is purposefully determined by the teacher and is not allowed outside of the classroom. A fee or full replacement of damaged, broken, or missing equipment may result along with an office referral.

****Any fighting, purposeful harm to a student or inappropriate behavior that causes a safety concern will result in immediate removal from the lab, which results in a referral and possible loss of participation in upcoming labs.**

PLEASE RETURN THIS SHEET SIGNED, VERIFYING YOU HAVE READ THE SYLLABUS FOR 2025-2026 SCHOOL YEAR .

Name Student (print): _____ Class Period: _____

Student Signature: _____ Date: _____

Parent/Guardian Signature: _____ Date: _____

(THIS PAGE IS WORTH 50% OF YOUR FIRST GRADE.)