

10th Grade Chemistry Syllabus

McGraw Hill Physics: 2025–2026

Teacher: Mrs. Lange

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Course Description: Chemistry is the study of the composition, structure, properties, and changes of matter. This course develops an understanding of atomic structure, bonding, chemical reactions, and the role of energy in physical and chemical processes. Students will apply the scientific method through hands-on laboratory investigations, data analysis, and problem-solving, connecting chemistry concepts to real-world applications and current issues.

Materials

- Composition notebook
- Writing instruments
- Calculator
- Lab Materials

Goals: By the end of this year, you will be able to:

- Apply scientific and engineering practices to explore and explain chemical phenomena.
- Demonstrate understanding of atomic structure, bonding, reactions, energy, acids/bases, and real-world chemical applications.
- Use mathematics to model and solve chemistry problems.
- Conduct safe, accurate labs and analyze experimental data effectively.
- Interpret and create graphs, diagrams, and models to represent chemical processes.
- Communicate scientific ideas clearly and effectively.
- Recognize the role of chemistry in technology, the environment, and daily life.
- Strengthen critical thinking and problem-solving skills.

Grading

- Daily Grades (Daily Work / Homework / Participation) – **60%**
- Exam Grades (Tests / Projects / Quizzes) – **40%**

Daily Structure

1. Bell Ringer
2. Reading Material/Assessments/Assignments
3. Exit Ticket

Policies

- **Late Work:** 10 points deducted each day. Not accepted after 4 days.
- **Make-Up Work:** The student is responsible for coming in during Pirate Period to receive any missed work/instruction.
- **Extra Help:** Tutoring available by appointment after school or any day during Pirate Period.

Note: This syllabus and pacing guide are intended as a general plan for the course. Adjustments may be made throughout the year to accommodate student needs, school events, or unforeseen circumstances. Any changes will be communicated in a timely and professional manner.

Semester 1

Ch.	Title	TEKS	Days of Instruction
0	The Process of Science	1.A, 1.B, 1.G, 1.H, 2, 2.A, 2.D, 3.A, 3.B, 3.C, 4.A, 4.B, 5	6–8
1	The Central Science	1.E, 1.F, 1.G, 2.B, 2.C	6–8
2	The Nature of Matter (<i>Building to TEKS</i>)	5.A, 8.C, 9.A, 10.A, 11.B	7–9
3	Structure of the Atom	6.A, 6.B, 6.D	4–6
4	Electrons in Atoms	6.A, 6.B, 6.C, 6.E	4–6
5	The Periodic Table & Periodic Law	5.A, 5.B, 5.C	5–7
6	Ionic Compounds & Metals	7.A, 7.B, 7.D	6–8
7	Covalent Bonding	6.E, 7.A, 7.B, 7.C, 7.D	8–10
8	Chemical Reactions	9.A, 9.B, 11.D	4–6
9	The Mole	8.A, 8.B, 8.C, 8.D	8–10
10	Stoichiometry	9.C, 9.D	6–8

Semester 2

Ch.	Title	TEKS	Days of Instruction
11	Gases	9.C, 10.A, 10.B, 10.C	9–11
12	Liquids & Solids	7.D, 13.C	6–8
13	Mixtures & Solutions	11.A, 11.B, 11.C, 11.E, 11.F	5–7
14	Energy & Chemical Changes	13.A, 13.B, 13.C, 13.D	8–10
15	Chemical Equilibrium	9.A, 11.D	1–2
16	Acids & Bases	12.A, 12.B, 12.C, 12.D, 12.E	6–8
18	Redox Reactions	9.B	1–2
19	Electrochemistry	4.B	1–2
20	Nuclear Chemistry	14.A, 14.B, 14.C	6–8
21	Hydrocarbons	7.B, 7.D	6–8
24	Chemistry & Earth's Systems —		6–8