

11th Grade Physics Syllabus

McGraw Hill Physics: 2025–2026

Teacher: Mrs. Lange

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Course Description: Physics helps us understand how the world works—from why objects fall to how electricity powers our homes. In this course, you'll investigate motion, forces, energy, waves, light, and more through hands-on labs, experiments, and real-life problem-solving. You'll use math as a tool, think like a scientist, and discover how physics connects to technology, nature, and everyday life.

Materials

- Composition notebook
- Writing instruments
- Calculator
- Lab Materials
- Craft supplies as needed

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

- Apply scientific and engineering practices to investigate and explain physical phenomena.
- Demonstrate understanding of motion, forces, energy, waves, electricity, magnetism, and modern physics.
- Use math to model and solve physics problems.
- Conduct safe, accurate labs and analyze data effectively.
- Interpret and create graphs, diagrams, and models.
- Communicate scientific ideas clearly.
- Connect physics concepts to real-world applications.
- 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

Chapter	Title	TEKS	Days of Instruction
1	Introduction to Physics	1.E, 1.F, 2.B, 2.C, 4.B	7–9
2	Representing Motion	5.A, 5.B, 5.C	5–7
3	Accelerated Motion	5.A, 5.B, 5.C	5–7
4	Forces in One Dimension	5.E, 5.F, 5.G	7–9
5	Forces in Two Dimensions	5.B, 5.E, 5.F	4–6
6	Motion in Two Dimensions	5.C, 5.D, 5.F	4–6
7	Gravitation	1.H, 4.B, 5.H	8–10
8	Rotational Motion	5.C, 5.E, 5.F	4–6
9	Momentum & Its Conservation	7.D, 7.E	5–7
10	Energy & Its Conservation	7.A, 7.B, 7.C, 7.E	4–6
11	Thermal Energy	7.C	2–4
14	Using Energy	7.A, 7.C	1–2

Semester 2

Chapter	Title	TEKS	Days of Instruction
15	Vibrations & Waves	8.A, 8.B, 8.C, 8.D	6–8
16	Sound	8.B, 8.C, 8.D	5–7
17	Fundamentals of Light	8.D, 9.B	4–6
18	Reflection	8.D, 8.G	5–7
19	Refraction	8.D, 8.G	5–7
20	Interference & Diffraction	8.D	3–5
21	Electrostatics	6.A, 6.B, 6.C	6–8
22	Electric Current & Circuits	6.D, 6.E	7–9
23	Magnetism	6.B	5–7
24	Electromagnetism	6.B	5–7
25	Electromagnetic Waves	8.B, 8.E	5–7
26	Quantum Theory & The Atom	8.F, 9.A, 9.B, 9.C, 9.D	6–8
28	Nuclear Physics	1.G, 4.B, 5.E, 5.H	5–7