

CFISD Physics

Scope and Sequence 2024-2025

Course Description:

In Physics, students conduct laboratory and field investigations, use scientific practices during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include: laws of motion, changes within physical systems and conservation of energy and momentum, forces, characteristics and behavior of waves, and electricity and magnetism. Students will apply conceptual knowledge and collaborative skills to experimental design, implementation, and interpretation. By the end of Grade 12, students are expected to gain sufficient knowledge of the scientific and engineering practices across the disciplines of science to make informed decisions using critical thinking and scientific problem solving.

Texas Essential Knowledge and Skills: Physics

Instructional Units	Days*	Start Dates	End Dates
First Semester	81	8/19/2024	12/20/2024
1st Grading Period (8/19/2024 - 10/18/2024)			
Supportive Learning Environment & Lab Safety	4	8/19/2024	8/22/2024
Unit 1: Constant Motion	16	8/23/2024	9/16/2024
Unit 2: Force Interactions	10	9/17/2024	9/30/2024
2nd Grading Period (10/21/2024 - 12/20/2024)			
Unit 3: Acceleration & Net Force	15	10/1/2024	10/22/2024
Unit 4: Work, Impulse, & Net Force	15	10/23/2024	11/14/2024
Unit 5: Force Analysis	10	11/15/2024	12/5/2024
Unit 6: 1D Motion (Free Fall & kinematics)	6	12/6/2024	12/13/2024
1st Semester Final Review & Exams	5	12/16/2024	12/20/2024
Second Semester	92	1/7/2025	5/29/2025
3rd Grading Period (01/07/2025 - 3/7/2025)			
Unit 7: 2D Motion (Projectiles & Circular)	19	1/7/2025	2/3/2025
Unit 8: Conservation in Mechanical Systems	15	2/4/2025	2/26/2025
4th Grading Period (03/17/2025 - 05/29/2025)			
Unit 9: Conservation of Charge	22	2/27/2025	4/4/2025
Unit 10: Electromagnetic Induction	6	4/7/2025	4/14/2025
Unit 11: SHM & Waves	15	4/15/2025	5/7/2025
Unit 12: Quantum (including Light as a particle)	8	5/8/2025	5/19/2025
2nd Semester Final Review & Exams	5	5/20/2025	5/29/2025

* The length of each unit is a specific number of days, but it is understood that there is a range of +/- two days. The purpose of the flexibility is meant to allow teachers the opportunity to plan for the needs of their students and to accommodate re-teaching or review when necessary. If pre-assessment indicates student mastery could be obtained in a fewer number of days, the additional time could be used for extension or carried into the next unit.

Instructional Materials:

Texas Physics Comprehensive Student Bundle

Zitzewitz et al

McGraw-Hill Education

