



Course Name: 8th Grade Science
School Year: 2021-2022

Course Purpose and Relevance:

Grade 8 science is interdisciplinary in nature; however, much of the content focus is on earth and space science. National standards in science are organized as multi-grade blocks such as Grades 5-8 rather than individual grade levels. In order to follow the grade level format used in Texas, the various national standards are found among Grades 6, 7, and 8. Recurring themes are pervasive in sciences, mathematics, and technology. These ideas transcend disciplinary boundaries and include change and constancy, patterns, cycles, systems, models, and scale.

Overview of Student Outcomes:

- The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices
- The student uses scientific practices during laboratory and field investigations.
- The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists.
- The student knows how to use a variety of tools and safety equipment to conduct science inquiry.
- The student knows that matter is composed of atoms and has chemical and physical properties.
- The student knows that there is a relationship between force, motion, and energy.
- The student knows the effects resulting from cyclical movements of the Sun, Earth, and Moon.
- The student knows characteristics of the universe.
- The student knows that natural events can impact Earth systems.
- The student knows that climatic interactions exist among Earth, ocean, and weather systems.
- The student knows that interdependence occurs among living systems and the environment and that human activities can affect these systems.

Available Support for Student Learning:

Refer to the teacher's Course Syllabus for resources and course specific opportunities.
Student textbook and/or digital version are available through the CCISD Student Portal.

Link to Course TEKS on State website:

<http://ritter.tea.state.tx.us/rules/tac/chapter112/ch112c.html#112.33>

Year-At-A-Glance 2021-2022	Department	Secondary Science	PEIMS Code	
	Subject Area	8th Grade Science	Grade Level	8

	1 st Nine Weeks			2 nd Nine Weeks	
	August	September	October	November	December
Week 1		Force and Motion 8.6A Balanced/Unbalanced Forces	Force and Motion 8.6B (6.8A, 6.8C, 6.8D) Motion: Graphing, Speed, Velocity, Acceleration 9 weeks Exams End of 9 weeks	Satellite & Topo Maps 8.9C (7.8B) Topographic Maps & Landforms	Moon Phases and Tides 8.7B Tides Exam Review
Week 2		Force and Motion 8.6C Newton's Laws	Plate Tectonics 8.9B (6.10D) Crustal Features	Day/Night and Seasons 8.7A Rotation & Day/Night Cycle	Semester Exams
Week 3	Safety and Scientific Skills 8.1-8.4 Safety & Equipment Scientific Reasoning Skills <i>*These skills should be incorporated throughout the year.</i>	Force and Motion 8.6C Newton's Laws	Plate Tectonics 8.9B (6.10D) Crustal Features Historical Evidence	Day/Night and Seasons 8.7A Revolving & Seasons	Holidays
Week 4	Safety and Scientific Skills 8.1-8.4 Safety & Equipment Scientific Reasoning Skills	Force and Motion 8.6B (6.8A, 6.8C, 6.8D) Motion: Graphing, Speed, Velocity, Acceleration	Satellite & Topo Maps 8.9C (7.8B) Satellite Maps & Landforms	Thanksgiving	Holidays
Week 5	Safety and Scientific Skills 8.1-8.4 Safety & Equipment Scientific Reasoning Skills			Moon Phases and Tides 8.7B Lunar Cycle	

Week is based on the month that the first day of the week occurs.

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	3 rd 9 Weeks			4 th 9 Weeks	
	January	February	March	April	May
Week 1	Review and Analyze Semester Exam Data	Chemistry – Reactions 8.5B, 8.5E Reactivity	Astronomy 8.8C Electromagnetic Spectrum Origins of the Universe 9 Weeks Exam End of 9 Weeks	Ecology 8.11B (7.10C, 7.11C) Environmental Changes Human Dependence 8.11C	STAAR REVIEW
Week 2	Chemistry – Atoms 8.5A, 8.5B Atomic Structure	Chemistry – Reactions 8.5D, 8.5E Law of Conservation of Mass	Spring Break	Weather and Oceans 8.10A Convection in the Atmosphere & Oceans	STAAR REVIEW STAAR TESTING Bridge to Biology
Week 3	Chemistry – Atoms 8.5A, 8.5B Atomic Structure	Astronomy 8.8A, 8.8B Components of the Universe	Ecology 8.11A (7.5B,7.10B) Competition	Weather and Oceans 8.10B, 8.10C Weather	Bridge to Biology Semester Exam Review
Week 4	Chemistry – Periodic Table 8.5B, 8.5C Elements and the Periodic Table	Astronomy 8.8C Electromagnetic Spectrum Origins of the Universe	Ecology 8.11A, 8.11B (7.5B,7.10B, 7.10C, 7.11C) Competition Environmental Change	STAAR REVIEW	Semester Exams
Week 5	Chemistry – Periodic Table 8.5B, 8.5C Elements and the Periodic Table		s		

Week is based on the month that the first day of the week occurs.