Course Name: Astronomy
School Year: 2025-2026

Course Purpose and Relevance:
In Astronomy, students conduct laboratory and field investigations, use scientific methods, and make informed decisions using critical thinking and scientific problem solving. Students study the following topics: astronomy in civilization, patterns and objects in the sky, our place in space, the moon, reasons for the seasons, planets, the sun, stars, galaxies, cosmology, and space exploration. Students who successfully complete Astronomy will acquire knowledge within a conceptual framework, conduct observations of the sky, work collaboratively, and develop critical-thinking skills.

Overview of Student Outcomes:

- The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices.
- The student uses scientific methods during laboratory and field investigations.
- The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom.
- The student recognizes the importance and uses of astronomy in civilization.
- The student develops a familiarity with the sky.
- The student knows our place in space.
- The student knows the role of the Moon in the Sun, Earth, and Moon system.
- The student knows the reasons for the seasons.
- The student knows that planets of different size, composition, and surface features orbit around the Sun.
- The student knows the role of the Sun as the star in our solar system
- The student knows the characteristics and life cycle of stars.
- The student knows the variety and properties of galaxies.
- The student knows the scientific theories of cosmology.
- The student recognizes the benefits and challenges of space exploration to the study of the universe.

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:
Astronomy TEKS Link

Year-at-a-Glance 25-26	Subject	Astronomy

	First Semester Instruction
1st Nine Weeks	**Unit 1: Scientific and Engineering Practices** BB 1: Lab Safety in Astronomy (1C) BB 2: Exploring Phenomena through Inquiry (1-4) BB3: Astronomy Vs. Astrology (6D) ***TEKS 1-4 will be embedded throughout each unit supporting the implementation of 3-Dimensional Instruction.***
	Unit 2: Timeline of Astronomy BB1: Timeline history and navigation (5A, 5C, 6B, 6C) BB2: Geocentric vs heliocentric (5B) BB3: Telescopes (10B, 10C, and 10D only types)
	Unit 3: Earth BB1: Sun, Earth, Moon, Apparent Movement (6A, 6B, 7A – AU only) BB2: Moon Phases (8A, 8B, 8C) BB3: Seasons (9A, 9B, 9C, 9D)
2nd Nine Weeks	**Unit 4: Solar Systems** BB1: Theories of Solar System Formation (11A, 11B, 11C, 11D) BB2: Inside the frostline (11B, 11C, 11D 16A, 16B) BB3: Outside the frostline (11B, 11C, 11D,16A, 16B)
	Unit 5: The Sun BB1: Sun Layers and Fusion (12A, 12B) BB2: Solar Weather (12C, 12D)
	Semester Exam Early Release 12/19

Year-at-a-Glance 25-26	Subject	Astronomy

	Second Semester Instruction
	Unit 6: Stars BB1: Recap EM and discuss limitations of telescopes (10D, 10C, 16D) BB2: Characteristics for Main Sequence (13A) BB3: Lifecycle of a Star (13B, 13C, 13D) BB4: HR Diagram (13E, 13F) BB5: Absorption, Emission, Black Body (10A) BB6: Luminosity, Magnitude (13G, 13H)
	Unit 7: Universe BB1: Galaxies (14A, 14B, 14C) BB2: Larger-Scale Structures (14D, 14E, 15C)
4th Nine Weeks	**Unit 8: Cosmology** BB1: Big Bang Theory (15A, 15B, 15C, 15D) BB2: End of Time (15C, 15E)
	Unit 9: Space Exploration BB1: Space Exploration (16A, 16B, 16D) BB2: Exoplanets (16C) BB3: Current Developments and Careers (16E, 16F)
	Unit 10: Space Exploration BB1: Space Exploration (16A, 16B, 16D) BB2: Exoplanets (16C) BB3: Current Developments and Careers (16E, 16F)
	Semester Exams Early Release 5/21 P 5/22 | H 5/25