

Conceptual Astronomy Curriculum Overview

2025-2026

<p><u>Unit 1</u> <i>Interpreting Starlight</i></p>	<p>In this unit, students will explore the idea of how the universe may have formed. Students will learn about light and its composition as well as how it can be used to identify, explain, and predict movements of celestial objects in our galaxy and beyond. Additionally, students will learn how the tools in astronomy and advances in technology are used to acquire information about distant celestial objects and their movements. Working both independently and with their peers, students will utilize essential skills such as mathematics, reading for information, critical thinking, and problem-solving to enhance their understanding.</p>
<p><u>Unit 2</u> <i>Origin of The Solar System</i></p>	<p>This unit is designed to enable students to independently analyze quantitative and qualitative data and use the scientific process to solve complex problems. The core Understandings center on the idea that the Sun's energy generation, stability, and influence—driven by nuclear fusion and energy transfer—are governed by fundamental physical laws. Students will also grasp that the formation, structure, and motion of all orbiting bodies, including phenomena like elliptical orbits and retrograde motion, are predictable consequences of universal laws of physics, such as gravity and conservation of momentum. Essential Questions driving this unit include: How do observations of the Sun inform our understanding of stellar internal workings and its impact on Earth? and What scientific evidence explains the origin, structure, and movements of planets in our solar system?</p> <p>Profile of a Graduate Capacities: Analyzing, Product Creation</p>