

Science 7

Course Overview and Syllabus

Course Subject Code: 2254

Grade level: 7

Prerequisite Courses: None

Credits: 1.0

Course Description

This yearlong seventh-grade course develops student knowledge of a variety of concepts within the earth, life, and physical sciences. Students investigate science topics such as matter, energy, climate, Earth's location and role in the universe, heredity, and biological unity and diversity. Skills lessons and projects provide students with various opportunities to hone their understanding of applying scientific inquiry. The larger themes are also applied to real-world topics while students complete hands on laboratory experiments that include both a virtual lab and a wet lab option.

Course Objectives

Throughout the course, you will meet the following goals:

- Conduct investigations and evaluate experimental designs.
- Understand the atomic composition of simple molecules and extended structures.
- Analyze evidence for how environmental and genetic factors influence the growth of organisms.
- Explore patterns of lunar phases, eclipses of the sun and moon, and seasons, as well as describe the role of gravity within galaxies and the solar system.
- Describe how unequal heating and rotation of the Earth causes patterns of atmospheric and oceanic circulation that determine regional climates.

The course objectives are implemented throughout specific lessons, which include examples of scientific and scholarly texts as well as virtual labs and wet labs which allow for a real-world, hands on experience. The objectives focus on investigating, evaluating, and exploring the scientific principles which guide further research and understanding.

The lesson objectives are assessed through assignments, quizzes, unit tests, virtual and wet labs and cumulative exams.

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course. Students are expected to spend approximately five to seven hours per week online on:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, e-mail, chat, and system announcements, and will provide you with hours of availability, contact policies, and any synchronous attendance requirements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Assignments	10%
Labs	15%
Lesson Quizzes	20%
Unit Tests	30%
Cumulative Exams	20%
Projects	5%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Matter and Its Interactions: Atoms, Elements, and Properties of Matter

Unit 2: Matter and Its Interactions: Compounds, Mixtures, Solutions, and Acid-Base Reactions

Unit 3: Energy

Unit 4: Weather and Climate

Unit 5: Earth's Place in the Universe

Unit 6: Heredity

Unit 7: Biological Unity and Diversity

Standards Alignment

The course was designed to meet the requirements of the 2014 Oklahoma Academic Standards for 7th grade science. The standards aligned to each lesson are available in the student portal in the lesson information panel.

Materials and Technology Requirements

All course materials are provided through the student portal. You will become familiar with them through an orientation video and the student handbook. These resources are available within the Student Organizer, where you can also check the status of your operating system, processor speed, plug-ins and connection speed.

Accessibility

The course is designed for accessibility to all students. The system provides features and accommodations to meet the needs of ELL and students with IEP's, 504 plans, and Section 508. These accommodations include addressing multiple learning styles, accommodations for assessments, video caption/transcripts, read-aloud and translation tools, and many other features/accommodations.