

Science 6

Course Overview and Syllabus

Course Subject Code: 2254

Grade level: 6

Prerequisite Courses: None

Credits: 1.0

Course Description

This full-year course for sixth grade students builds on basic principles of scientific inquiry and translates those skills to more complex, overarching themes. The course includes units that help students understand the definitions, forms, and classifications of living organisms and learn to analyze the diversity of each unique group of living organisms. Other units introduce students to matter, energy, temperature, motion, and force. The larger themes throughout the course are applied to real-world topics, such as human biology and health, as students complete hands on projects and 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.
- Describe the function of a cell as a whole, as well as how the specific parts of a cell contribute to cell function.
- Apply scientific principles to better understand thermal energy transfer and the effect of humans on the environment.
- Evaluate different solutions for maintain biodiversity within an ecosystem.
- Predict patterns of interactions among organisms in ecosystems.

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	10%
Lesson Quizzes	20%
Unit Tests	30%
Cumulative Exams	20%
Projects	10%

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: Cells: Cellular Structure and Function

Unit 2: Cells: The Human Body and Homeostasis

Unit 3: Cycles of Matter and Energy

Unit 4: Factors that Affect Populations and Health of Ecosystems

Unit 5: Kinetic and Potential Energy

Unit 6: Kinetic Energy as Temperature

Unit 7: Forces

Standards Alignment

The course was designed to meet the requirements of the 2014 Oklahoma Academic Standards for 6th 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.