

# NGSS Life Science

## Course Overview and Syllabus

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**Grade level:** 6-8

**Prerequisite Courses:** None

**Credits:** 1.0

### Course Description

This full-year middle school course focuses on introducing students to the diversity of life found on our planet. The course includes an overview of scientific principles and procedures, and leads students toward a clearer understanding of cells and heredity, the five kingdoms, human body systems, and ecology. As students refine and expand their understanding of life science, they will apply their knowledge in investigations that require them to ask questions and explore the world around them. Throughout the course, students will also solve problems, reason abstractly, and learn to think critically.

### Course Objectives

Throughout the course, you will meet the following goals:

- Examine the characteristics of living things.
- Investigate cell structure and cellular processes.
- Relate the structure and function of DNA to inheritance patterns.
- Explore the changes in organisms over time.
- Learn about the diversity of organisms, from bacteria to animals.
- Analyze how human body systems work together to maintain homeostasis.
- Demonstrate an understanding of populations and ecosystems.
- Explain the causes and effects of environmental change.

### Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

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

## Communication

Your teacher will communicate with you regularly through discussions, e-mail, chat, and system announcements. 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
Quiz	20%
Test	30%
Exam	20%
Assignment	10%
Lab	10%
Additional	0%
Project	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:** Building Blocks of Life and Cell Structure

**Unit 2:** Cellular Energy and Reproduction

**Unit 3:** Genetics and Heredity

**Unit 4:** Natural Selection and Evolution

**Unit 5:** Introduction to Organisms

**Unit 6:** The Human Body

**Unit 7:** Introduction to Ecology

**Unit 8:** Changes in Ecosystems