

# PLATO<sup>®</sup> Life Science

**Grade Level:** 6–8  
**Target Audience:** Middle School/High School  
**Audio Support:** Yes

## Product Features

- 138 discrete learning objectives
- Engage the learner with extensive audio, graphics, and interactions
- Animations show complex processes
- Simple and consistent navigation
- Glossary defines terms and models proper pronunciation
- Fun, theme-based interactive scenarios in all applications

## Product Benefits

- Aligns to national standards, including NSES and McREL
- Provides content knowledge aimed to improve achievement on standardized tests
- Helps learners visualize and understand science concepts
- Allows learners to complete lessons sequentially or select topics in desired order
- Enriches instruction with real-life problem-solving scenarios

## Online Tools

Glossary—models pronunciation of science terms and provides definitions

Calculator—available to help learner solve problems using basic operations

Conversion Tool—available to help learner perform unit conversions between the metric and English systems of measurement

## Menu Icons

Options—allows learner to turn off narration and customize the interface color

Help—provides an explanation of course features

Previous—allows learner to return to the previous scene

Pause—allows learner to stop and restart the audio

Next—allows learner to proceed to the next scene

Exit—allows learner to stop and exit the program

Jump—allows learner to view a specific topic rather than advance sequentially

Read along—allows learner to view a transcript of the audio

## Reference Materials (Refer to PLATO Documentation CD)

PLATO Curriculum Guide—Life Science



## Getting Started

- Refer to the Curriculum Guide for Life Science to review the menu icons and identify concepts addressed in each unit.
- Become familiar with the purpose and use of the courseware learning activities, which are described in the curriculum guide.
- Preview the Life Science units.

## Lesson Progression

- Lesson—introduces and teaches life science concepts (not scored)
- Application—reinforces life science concepts covered in the lesson (scored)
- Test—includes randomly generated questions and provides immediate feedback (scored)

## Assessment

- Assign the test as a pretest to evaluate individual learning needs.
- Use a state or local assessment to further identify and prioritize instructional needs.

## Implementation Strategies

- Present each lesson in a whole-group activity to introduce life science concepts.
- Encourage self-paced learning by directing the learner to complete the application independently.
- Encourage the learner to formulate questions about life science concepts presented in the lessons.
- Target individual learner needs by assigning selected courseware modules for remediation, reinforcement, and extension.

## Evaluation

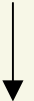
- Design and formulate an evaluation plan based on the online test results.
- Collect learner portfolios to further evaluate which concepts the learner has mastered.
- Generate reports to track learner progress and measure gains.
- Evaluate and discuss report data with the learner to determine the next steps.

## Extension Exercises

- Assign individual lessons to small groups and have each group explain the lesson's concepts to the whole group.
- Assign learners to create a website library for each lesson.
- Develop writing prompts that extend course topics and have the learner keep a journal.
- Align courseware modules with textbooks and district objectives.

Curriculum  
Structure

Curriculum



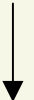
Life Science

Course



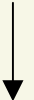
Cells—The  
Basis of Life

Module



What Is Life?

Skill Activity



Lesson

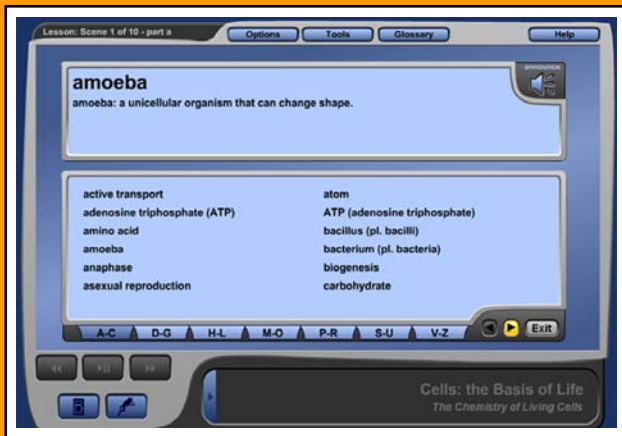
Application

Test

For more information, please call 800.44.PLATO or visit [www.plato.com](http://www.plato.com)

**Real learning. Real results.™**

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## Life Science—Glossary

The glossary defines all the vocabulary words used in the life science curriculum:

- Learners can launch the glossary from any location inside the lesson or application.
- Learner progress is uninterrupted.
- Vocabulary words are grouped alphabetically for quick retrieval.
- Learners can select the announce icon to hear the vocabulary word and definition read aloud.
- Definitions are clear and concise.

## Units, Topics, and Descriptions

Unit	Topics	Description
<b><i>Cells—The Basis of Life</i></b>	What is Life?; The Chemistry of Living Cells; Similarities in Cell Structures and Function; Differences and Specialization in Cells; Cellular Processes	This unit introduces cells, from their basic structure and chemical makeup to how they grow and reproduce. Learners will explore specific cellular processes, including photosynthesis, cellular respiration, mitosis, and meiosis. They will understand the importance of these individual processes to the survival of plants and animals.
<b><i>Structure and Function in Living Organisms</i></b>	Levels of Organization; Structure and Function of Tissues and Organs; Organ Systems	Focusing on the tissue, organs, and organ systems of the human body, this unit discusses the ways cells organize to perform specific functions. Interactive explorations allow students to examine major organ systems and to study how they work synergistically to allow survival.
<b><i>Classification and Diversity of Life</i></b>	Classifying Life; Bacteria, Protists, and Fungi; The Plant Kingdom; The Animal Kingdom; Exploring Vertebrates	This unit provides an introduction to taxonomy, focusing first on how scientists classify living organisms into kingdom, genus, and species. Learners then explore the characteristics of bacteria, protists, and fungi, as well as plants and animals.
<b><i>Genetics and Heredity</i></b>	Genes and Traits; Heredity; Genetic Variation and Biotechnology	This unit reviews the basic structure of DNA and RNA. It also explores DNA replication, transcription, and translation, as well as how these processes work to make proteins within the body. Learners will study the role of DNA in passing traits from one generation to the next. And they will look at the field of genetics, including the ways humans are able to control heredity through biotechnology.

Unit	Topics	Description
<b><i>Organisms and Their Environment</i></b>	Maintaining Conditions for Life; Living with the Environment; Flow of Energy and Matter in Nature; Biomes and Biodiversity	This unit provides an introduction to how organisms interact with each other and their environment to create whole ecosystems. Lessons show how the different behaviors and responses of animals and plants to their environment help them survive. Learners will also study cycles of energy and matter, such as food chains, food webs, and the water cycle. The unit ends by investigating the earth's varied biomes.
<b><i>Human Health and Reproduction</i></b>	Immunity and Preventing Disease; Human Reproduction and Development	The first part of this unit focuses on human health, explaining how infectious diseases are passed from one person to another and how noncommunicable diseases may develop. Learners will gain an understanding of human reproduction by studying male and female anatomy and the development of an embryo into a newborn child.
<b><i>Change Over Time</i></b>	Fossils and the Geologic Time Scale; Evolution and Natural Selection	In this unit, learners will study the theories of evolution and natural selection. They will look at how fossils are made, dated, and classified. This unit also examines how the fossil record supports the theory of evolution, and how evolution over many generations may result in the formation of new species.

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