

Preparation for the GED® Test - Science

Course Overview

The Preparation for the GED® Test Courses were developed by aligning Plato Courseware with the strands and topics that are assessed on the 2014 GED® Test. Each unit aligns to one or more strands within the 2014 GED® Test and the modules within each unit target the individual indicators on the test. This course focuses on the conceptual knowledge of life science, physical science, and Earth and Space science. This course also provides an understanding of the scientific reasoning skills needed for performing scientific inquiry and experiments.

Course Goals

By the end of this course, you will:

- Understand the vocabulary and key concepts of the Science as a discipline
- Understand the skills needed to perform scientific experiments and research
- Explore the application of principles and concepts of mathematics in scientific inquiry
- Explore the key concepts of life science and human health
- Understand genetics, heredity and evolution
- Understand the organization and characteristics of the environment that we live in
- Understand the key concepts of physical science
- Understand the key concepts of Earth and Space science

General Skills

To participate in this course, you should be able to do the following:

- Complete basic operations with word processing software, such as Microsoft Word or Google Docs.
- Complete basic operations with presentation software, such as Microsoft PowerPoint or Google Docs presentation.
- Perform online research using various search engines and library databases.
- Communicate through email.

For a complete list of general skills that are required for participation in online courses, refer to the Prerequisites section of the Plato Student Orientation document, found at the beginning of this course.

Course Materials

- notebook
- pencils or ink pens
- computer with Internet connection and speakers or headphones
- Microsoft Word or equivalent
- Microsoft PowerPoint or equivalent

Course Structure

Unit 1: Science Practices

Summary

This unit is based on the scientific practice standards of the GED Test. This unit focuses on essential practice skills for performing scientific investigations. The unit begins with the key terms and reading strategies for Science as a discipline. The unit then explores the controlled and variable parameters, types of variables and experimental errors in an experiment. The unit also provides an understanding of how to organize and present procedural data and results of an investigation. Students will conclude this unit with lessons on the application and use of mathematical principles and concepts in scientific investigations.

Unit 2: Human Health and Living Systems

Summary

This unit focuses on the key concepts of Life Science. The unit begins with developing an understanding of Biology. The unit provides an understanding of genetics, genetic traits and heredity including key ideas about Mendelian genetics. Students will explore the process of evolution. The unit concludes with the understanding of the organization and characteristics of the environment and ecosystem.

Unit 3: Energy and Related Systems

Summary

This unit focuses on the key concepts of Physical Science. This unit provides an understanding of matter and energy. It explores physical and chemical changes and types of chemical reactions. This unit concludes with the concept of motion and work.

Unit 4: Earth and Space Science

Summary

This unit begins with an understanding of the organization of the universe. Students will learn about the components of the solar system and Earth itself. This unit explores the composition, atmosphere, and landforms of the Earth and Plate Tectonics. Students will gain an understanding of the characteristics of natural calamities such as earthquakes and volcanoes.