Collapse all

Earth and Space Science, Part 1

ATTENTION

Grading may take up to 7 days at semester end and during the summer semester!
Submit your **last assignment two weeks** before your school's semester ends.

How to Take This Course

Complete all the quizzes and the assignment in each unit. Once the quizzes for a unit are complete, you will have access to the unit test. We recommend you complete the unit assignment before you attempt the unit test; the assignment will help you prepare. You will take quizzes to the final after you have been enrolled in the course for at least 30 days, all unit tests are completed, and your assignments are graded.

Allow 3-4 school days for an assignment to be graded. To understand the course grading, read the full course instructions.

- Course Instructions
- How This Course Works & Suggested Timeline
- Submitting Your Assignments
- Ask The Teacher

Meet your teacher for this course and ask a question.

Need help with the course? We offer online tutoring; find more details about it here.

- MANDATORY QUIZ — Completion
  You are required to take this quiz before you start the course. To prepare, read the course instructions and the "submitting your assignments" document, watch the video on the how this course works page and review the suggested timeline.
- Learning Objectives & Standards Met By This Course

Unit 1: The Universe and Its Beginnings

In this unit, you will:

- Explore the electromagnetic spectrum and how different types of light help scientists study the universe.
- Learn how the Big Bang Theory explains the origin and expansion of the universe.
- Examine evidence supporting the Big Bang Theory, including redshift, cosmic microwave background radiation, and the abundance of elements.
- Investigate the composition of the universe, including matter, dark matter, and dark energy.
- Understand how gravity shapes the motion and structure of objects throughout the universe.

- Unit 1 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above, and make a copy of the file. If you don't have access to Google Docs, preview the study guide and download an editable version or PDF.

- 1.1 The Electromagnetic Spectrum
- Quiz 1.1 — Completion
- 1.2 The Big Bang Theory
- Quiz 1.2 — Completion
- 1.3 Evidence Supporting the Big Bang Theory
- Quiz 1.3 — Completion
- 1.4 Composition of the Universe
- Quiz 1.4 — Completion
- 1.5 Gravity
- Quiz 1.5 — Completion
- Unit 1 Assignment: Gravity and Orbital Motion Lab — Completion
- Unit 1 Test
  Not available unless: The activity **Quiz 1.1** is marked complete ... — Show more

Unit 2: Stars and the Sun

In this unit, you will:

- Explore the structure and types of galaxies found throughout the universe.
- Learn what stars are, how they form, and the characteristics scientists use to classify them.
- Understand how nuclear fusion powers stars and produces the energy they release.
- Examine the life cycles of stars, including how their mass influences their evolution and ultimate fate.
- Investigate the Sun's structure, energy production, and importance to life on Earth.

- Unit 2 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above, and make a copy of the file. If you don't have access to Google Docs, preview the study guide and download an editable version or PDF.

- 2.1 Galaxies
- Quiz 2.1 — Completion
- 2.2 What are Stars?
- Quiz 2.2 — Completion
- 2.3 Nuclear Fusion
- Quiz 2.3 — Completion
- 2.4 Life Cycle of Stars
- Quiz 2.4 — Completion
- 2.5 The Sun and Its Energy
- Quiz 2.5 — Completion
- Unit 2 Assignment: The Life Cycle of Stars Presentation — Completion
- Unit 2 Test
  Not available unless: The activity **Quiz 2.1** is marked complete ... — Show more

Unit 3: Earth and the Solar System

In this unit, you will:

- Compare the planets of the solar system and identify the characteristics that distinguish them.
- Learn how Kepler's Laws describe the motion of planets around the Sun.
- Explore the Moon's formation, features, and influence on Earth.
- Understand how the interactions between the Earth, Moon, and Sun produce seasons, eclipses, and tunar phases.
- Investigate asteroids and comets and their role in the history and evolution of the solar system.

- Unit 3 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above, and make a copy of the file. If you don't have access to Google Docs, preview the study guide and download an editable version or PDF.

- 3.1 Planets of the Solar System
- Quiz 3.1 — Completion
- 3.2 Kepler's Laws
- Quiz 3.2 — Completion
- 3.3 The Moon
- Quiz 3.3 — Completion
- 3.4 Earth-Moon-Sun System
- Quiz 3.4 — Completion
- 3.5 Asteroids and Comets
- Quiz 3.5 — Completion
- Unit 3 Assignment: Earth-Moon-Sun System Investigation — Completion
- Unit 3 Test
  Not available unless: The activity **Quiz 3.1** is marked complete ... — Show more

Unit 4: Earth's Formation and Early History

In this unit, you will:

- Learn how Earth formed and changed during its early history.
- Explore the structure of Earth and the characteristics of its major layers.
- Understand how plate tectonics drives movement within Earth's crust and shapes the planet's surface.
- Examine the evidence supporting the theory of continental drift.
- Use relative and absolute dating methods to determine the ages of rocks, fossils, and geological events.

- Unit 4 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above, and make a copy of the file. If you don't have access to Google Docs, preview the study guide and download an editable version or PDF.

- 4.1 How Earth Formed
- Quiz 4.1 — Completion
- 4.2 Earth's Layers
- Quiz 4.2 — Completion
- 4.3 Plate Tectonics
- Quiz 4.3 — Completion
- 4.4 Continental Drift
- Quiz 4.4 — Completion
- 4.5 Relative and Absolute Dating
- Quiz 4.5 — Completion
- Unit 4 Assignment: Plate Tectonics and Continental Drift Investigation — Completion
- Unit 4 Test
  Not available unless: The activity **Quiz 4.1** is marked complete ... — Show more

Unit 5: The Geosphere

In this unit, you will:

- Investigate how weathering and erosion shape Earth's surface over time.
- Identify the properties and uses of minerals found within Earth's crust.
- Explore the three major types of rocks and the processes involved in the rock cycle.
- Learn how soil forms and why it is essential to ecosystems and agriculture.
- Examine the processes that create Earth's diverse landforms, including mountains, valleys, plains, and canyons.

- Unit 5 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above, and make a copy of the file. If you don't have access to Google Docs, preview the study guide and download an editable version or PDF.

- 5.1 Weathering and Erosion
- Quiz 5.1 — Completion
- 5.2 Minerals
- Quiz 5.2 — Completion
- 5.3 Rocks and the Rock Cycle
- Quiz 5.3 — Completion
- 5.4 Soil
- Quiz 5.4 — Completion
- 5.5 Earth's Landforms
- Quiz 5.5 — Completion
- Unit 5 Assignment: Soil Properties Investigation — Completion
- Unit 5 Test
  Not available unless: The activity **Quiz 5.1** is marked complete ... — Show more

Final Exam

You will have access to the final after you have been enrolled in the course for at least 30 days and when all unit tests are completed, and your assignments are graded.

Warning: You have only ONE attempt at the final. Are you ready to take the final? We highly recommend you take the practice final first, and if you are weak in any area, review the relevant course material again. You have unlimited attempts at the practice final; it will help you to prepare.

Remember, if you want to improve your grade in this course, you need to do that BEFORE you take the final exam.

Good Luck!

- Not available unless: The activity **MANDATORY QUIZ** is marked complete

Course Completion & Requesting a Transcript

Transcript - Send a transcript to your school to report the credits you earned. A transcript will list all the courses you have taken with us, including those still in progress.

Feedback - Before you go, we would appreciate your opinion on the course; please take 1 minute to complete the feedback form. We hope you enjoyed this course!

- Course Feedback

Thank you for taking this course! Let us know what you think about it.

- Request a Transcript

Notify your school that you have completed your course. Send them a transcript by email or mail. A transcript will list all the courses you have completed and those in progress.