Earth Science Honors offers a focused curriculum that explores Earth's composition, structure, processes, and history; its atmosphere, freshwater, and oceans; and its environment in space.

Course topics include an exploration of the major cycles that affect every aspect of life, including weather, climate, air movement, tectonics, volcanic eruptions, rocks, minerals, geologic history, Earth's environment, sustainability, and energy resources. Optional teacher-scored labs and projects encourage students to apply the scientific method. Other activities, such as practices and journals, challenge students to explore topics more deeply in order to enhance students' understanding of core concepts.

This course is built to state standards and informed by the National Science Teachers Association (NSTA).

Length: Two semesters

UNIT 1: WHAT IS EARTH SCIENCE?

LESSON 1: THINKING LIKE A SCIENTIST

Study: The Layers of Earth Science
Learn about the fields that make up Earth science and about the scientists who work in them.
Duration: 1 hr

Study: The Scientific Method
Solve problems by applying the steps of the scientific method.
Duration: 1 hr

Practice: The Thirsty Earth
Analyze and design a hydrology experiment.
Duration: 1 hr Scoring: 50 points

Discuss: That Is My Specialty
Discuss what you have learned about careers in Earth science.
Duration: 0 hrs 30 mins Scoring: 25 points

Journal: What Is Your Problem?
Approach a compelling Earth science problem from the perspective of one of the Earth science careers.
Duration: 0 hrs 30 mins Scoring: 15 points

Quiz: Working in Science
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 2: DISCOVERING PLANET EARTH

Study: A Global View
Differentiate among models used to graphically represent Earth. Examine maps and learn about how they are arranged.
Duration: 1 hr

Study: Maps and More
Learn how different maps are used and made.
Duration: 1 hr

Quiz: Do You Know Your Earth?
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 3: CONCEPTS IN EARTH SCIENCE

Study: Equilibrium and Convection
Discover why equilibrium and convection are important Earth science concepts. Learn how to recognize them in everyday life.
Duration: 1 hr

Practice: A Recipe for Convection
Explain how a convection cell works in a pot of soup.
Duration: 1 hr Scoring: 50 points

Study: Cycling through the Conservation of Matter and Energy
Discover why cycling and the conservation of matter and energy are important Earth science concepts. Learn how to recognize them in everyday life.
Duration: 1 hr

Quiz: Big Earth, Big Concepts
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 4: WHAT IS EARTH SCIENCE? WRAP UP

Review: What Is Earth Science?
Prepare for the unit test by reviewing key concepts and skills.
Duration: 2 hrs

Test (CS): What Is Earth Science?
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): What Is Earth Science?
Take a teacher-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 70 points

UNIT 2: WHERE IS EARTH?

LESSON 1: THE UNIVERSE

Study: The Big Bang Theory
Discover the Big Bang theory and learn about what evidence is used to support it.
Duration: 1 hr

Study: Galaxies
The Milky Way is only one of many galaxies. Learn about the different types of galaxies in the universe.
Duration: 0 hrs 30 mins

Study: Star Life Cycles
Live like a star. Explore the life cycle of stars. Learn about why the size of a star influences how it dies.
Duration: 1 hr

Quiz: Matter Formation
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

Practice: Everything in the Universe
Predict what will happen to stars and answer questions about the life cycles of stars.
Duration: 1 hr Scoring: 50 points

LESSON 2: SOLAR SYSTEM FORMATION

Study: Planet Formation
Discover how gravity influences the universe.
Duration: 0 hrs 30 mins

Study: Comets and Asteroid Belts
Learn about comets and asteroids and how they are formed.
Duration: 0 hrs 30 mins

Quiz: How Did Planets Form?
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 3: OUR NEIGHBORHOOD

Study: Here Comes the Sun
How hot is hot? Examine the structure of the sun and learn about its energy.
Duration: 0 hrs 30 mins

Project: Modeling the Sun
Complete a project to model energy transfer though the layers of the sun and to Earth and to model how sun changes during its life span.
Duration: 1 hr 30 mins Scoring: 50 points

Study: The Inner, Rocky Planets
Analyze similarities and differences among Mercury, Venus, Mars, and Earth.
Duration: 1 hr

Quiz: The Solar System So Far
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

Study: The Gas Giants and Pluto
Analyze similarities and differences among Jupiter, Saturn, Neptune, Uranus, and Pluto.
Duration: 1 hr

Quiz: The Rest of the Solar System
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

Journal: Choose a Planet
Create an article, real estate advertisement, or letter in order to share your thoughts about a planet you would like to visit.
Duration: 0 hrs 30 mins Scoring: 15 points

LESSON 4: PLANET EARTH

Study: The Moving Earth
Around and around we go. Discover how Earth's movements affect conditions on the planet.
Duration: 1 hr

Practice: Stopping the Revolution
Determine how well you understand Earth's movement in space.
Duration: 1 hr Scoring: 50 points

Study: The Living Planet
Discover why life is able to survive on Earth.
Duration: 0 hrs 30 mins

Study: The Moon
Discover how the moon came into being and how it influences the Earth.
Duration: 1 hr

Quiz: The Earth and Moon System
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

Discuss: Are We Alone?
Discuss the possible existence of aliens and whether you think space travel and planet colonization might be possible in the future.
Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Eclipses 101
Be the professor. During today's class, explain the different types of eclipses.
Duration: 1 hr Scoring: 50 points

LESSON 5: WHERE IS EARTH? WRAP-UP

Review: Where Is Earth?
Prepare for the unit test by reviewing key concepts and skills.
Duration: 1 hr 30 mins

Test (CS): Where Is Earth?
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Where Is Earth?
Take a teacher-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 70 points

UNIT 3: EARTH'S WATER

LESSON 1: THE BLUE PLANET

Study: Water, Water, Everywhere
Get your feet wet. Discover why water exists on Earth, the three states of water, and the processes of the water cycle.
Duration: 0 hrs 30 mins

Practice: Water World
Answer questions to test your understanding of the states and movement of water.
Duration: 1 hr Scoring: 50 points

Quiz: What Do You Know about Water?
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

Lab: Investigate the Water Cycle
Complete a lab to investigate how living things are part of the water cycle in a terrarium you make as a model living system.
Duration: 1 hr 30 mins Scoring: 50 points

LESSON 2: GETTING FRESH

Study: Fresh Water
Jump into lakes, swim down rivers, and prowl through wetlands as you explore freshwater on Earth.
Duration: 1 hr

Study: You're Grounded
Learn what groundwater is and how it influences systems above ground.
Duration: 0 hrs 30 mins

Quiz: Different Bodies of Water
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

Discuss: Make a Big Splash
Discuss the necessity of clean water and what you can do to protect this valuable resource.
Duration: 0 hrs 30 mins Scoring: 25 points

Journal: Your Water Diet

Reflect on how much water you consume each day. Share your thoughts about preserving wetlands in your community.

Duration: 0 hrs 30 mins Scoring: 15 points

LESSON 3: THE OCEANS

Study: An Oceanographic Voyage

Travel on a research vessel to learn how oceanographers study the ocean and its inhabitants.

Duration: 1 hr

Journal: Under Pressure

Write about the challenges we face while exploring — and perhaps even colonizing — the ocean.

Duration: 0 hrs 30 mins Scoring: 15 points

Study: The Ocean in Motion

Learn about waves, tides, and currents and how they influence the environment.

Duration: 1 hr

Study: Wild World Weather

Assess the effects of El Niño and La Niña on global weather patterns.

Duration: 0 hrs 30 mins

Quiz: Earth's Oceans

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 4: EARTH'S WATER WRAP-UP

Review: Earth's Water

Prepare for the unit test by reviewing key concepts and skills.

Duration: 1 hr 30 mins

Test (CS): Earth's Water

Take a computer-scored test to assess what you have learned in this unit.

Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Earth's Water

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 70 points

UNIT 4: EARTH'S ATMOSPHERE

LESSON 1: THE SKY'S THE LIMIT

Study: Layers of the Atmosphere

Float through the atmosphere on layers upon layers of air as an amateur meteorologist.

Duration: 1 hr

Quiz: Know Your Layers

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

Discuss: What about This Ozone?

Discuss strategies for reducing our impact on the ozone layer.

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Up, Up, and Away

Create a diagram to help you remember the layers of the atmosphere.

Duration: 1 hr Scoring: 50 points

LESSON 2: CYCLES IN THE ATMOSPHERE

Study: Carbon and Nitrogen

What goes around comes around — especially when it comes to carbon and nitrogen.

Duration: 1 hr

Lab: Investigate Cycling of O_2 and CO_2

Complete a lab to model the carbon cycle by observing how plants and yeast exchange gases with their surroundings.

Duration: 1 hr 30 mins Scoring: 50 points

Study: Taking the Heat

Compare conduction, convection, and radiation. Learn how these methods of heat transfer drive atmospheric processes.

Duration: 1 hr

Practice: In Sink

Address some often-overlooked cycles in Earth science.

Duration: 1 hr Scoring: 50 points

Quiz: Air Head

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 3: THE WINDY PLANET

Study: Why the Wind Blows

Discover how Earth's rotation and revolution, atmospheric gases, and differences in land, ice, and water conspire to create wind.

Duration: 1 hr

Study: Which Way the Wind Blows

Learn about global patterns of air circulation and find out what drives and gets driven by them.

Duration: 1 hr

Quiz: Do You Know about Currents?

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 4: EARTH'S ATMOSPHERE WRAP-UP

Review: Earth's Atmosphere

Prepare for the unit test by reviewing key concepts and skills.

Duration: 1 hr 30 mins

Test (CS): Earth's Atmosphere

Take a computer-scored test to assess what you have learned in this unit.

Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Earth's Atmosphere

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 70 points

UNIT 5: WEATHER AND CLIMATE

LESSON 1: HOW'S THE WEATHER?

Study: Weather or Not

Identify the basic causes of most of the types of weather that we see.

Duration: 1 hr

Study: In the Clouds

Learn how clouds form and what different types of clouds mean for the forecast.

Duration: 0 hrs 45 mins

Practice: Cloudy Thinking
Show what you know about the kinds of weather that clouds forecast.
Duration: 1 hr Scoring: 50 points

Journal: On Cloud Nine
Track cloud types in your area to help predict weather conditions.
Duration: 0 hrs 30 mins Scoring: 15 points

Study: Going to Extremes
Explore the causes and effects of severe weather, including tornadoes, hurricanes, blizzards, and more.
Duration: 1 hr

Quiz: Get in Front
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 2: IN THE FORECAST

Study: Instruments and Measurements
Measure, read, gauge, and calculate. Learn about tools that are used to explore weather.
Duration: 1 hr

Study: Weather Maps
Examine weather maps from the inside out.
Duration: 1 hr

Practice: Weather Wizard
Analyze weather maps and create your own weather report.
Duration: 1 hr Scoring: 50 points

Study: Making and Faking the Forecast
Compare models used to help predict weather.
Duration: 1 hr

Discuss: Rain Dance
How reliable is the forecast? Can you and your classmates do a better job?
Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Assess the Forecast
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 3: CLIMATE

Study: Climate Time
Examine the factors that influence climate.
Duration: 1 hr

Quiz: Climate Climb
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 4: WEATHER AND CLIMATE WRAP-UP

Review: Weather and Climate
Prepare for the unit test by reviewing key concepts and skills.
Duration: 1 hr 30 mins

Test (CS): Weather and Climate
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Weather and Climate

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 70 points

UNIT 6: SEMESTER REVIEW AND EXAM

LESSON 1: SEMESTER 1 WRAP-UP

Review: Semester 1 Review

Prepare for the semester exam by reviewing key concepts covered in Semester 1.

Duration: 3 hrs 30 mins

Exam: Semester 1

Take a computer-scored exam to demonstrate your mastery of concepts and skills covered in Semester 1.

Duration: 0 hrs 40 mins Scoring: 80 points

Final Exam: Semester 1

Take a teacher-scored exam to demonstrate your mastery of concepts and skills covered in Semester 1.

Duration: 1 hr 20 mins Scoring: 120 points

UNIT 7: LAYING THE GROUNDWORK

LESSON 1: EARTH'S LAYERS

Study: The Door to the Core

Get to the center of everything. (Just because it is out of sight doesn't mean it is out of mind.)

Duration: 1 hr

Study: The Mantle and Crust

Envision the layers of Earth's mantle and discover the composition and characteristics of the Earth's crust.

Duration: 0 hrs 45 mins

Practice: Digging Deep

Diagram Earth's layers and answer questions about their composition.

Duration: 1 hr Scoring: 50 points

Lab: Modeling Convection in Earth's Interior

Complete a lab to build a model using warm and cold water to represent the cycling of matter inside Earth.

Duration: 1 hr 30 mins Scoring: 50 points

Discuss: Journey to the Center of Earth

Discuss whether you think existing data supports current theories about Earth's interior. What additional research would be beneficial?

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Earth's Layers

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 2: EARTH'S MAGNETISM

Study: A Magnetic Personality

Why does a magnet stick to the fridge? Learn about magnetism and the magnetic field that surrounds the Earth.

Duration: 1 hr

Practice: Taming the Compass

Practice what you have learned about Earth's magnetic poles by taming the wild compass.

Duration: 1 hr Scoring: 50 points

Quiz: Magnetic Fields

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

Journal: Pole Position

In a genre of your choosing, compose a description of what would happen if the poles were to reverse.

Duration: 0 hrs 30 mins Scoring: 15 points

Practice: Magnet Dragnet

Practice using evidence of Earth's magnetic field, including striped sea floors, auroras, wandering poles, and iron-rich meteorites.

Duration: 1 hr Scoring: 50 points

LESSON 3: IT IS DEEPLY MOVING

Study: Plate Tectonics

Consider how plate tectonics literally rock the world.

Duration: 1 hr

Practice: Chronic Tectonics

Check to see if you understand the theory of plate tectonics.

Duration: 1 hr Scoring: 50 points

Study: Whose Fault Is It, Anyway?

Examine fault lines and discover why they form.

Duration: 0 hrs 45 mins

Quiz: Fault Assault

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 4: LAYING THE GROUNDWORK WRAP-UP

Review: Laying the Groundwork

Prepare for the unit test by reviewing key concepts and skills.

Duration: 2 hrs

Test (CS): Laying the Groundwork

Take a computer-scored test to assess what you have learned in this unit.

Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Laying the Groundwork

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 70 points

UNIT 8: THE MOVERS AND SHAKERS

LESSON 1: MOUNTAINS TO TRENCHES

Study: Ocean Commotion

Examine features of ocean ridges and trenches to learn how Earth's crust gets recycled.

Duration: 1 hr

Study: Ain't No Mountain High Enough

Learn how mountains grow and change around the globe.

Duration: 1 hr

Quiz: Feature Creep

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 2: CREAKS AND HAZARDS

Study: In a Volcanic Panic

Feel the heat, taste the ashes. Get up close and personal with some sleeping and waking volcanoes.

Duration: 1 hr

Practice: The Yellowstone Supervolcano
Practice your volcano smarts with a case-study look at Yellowstone National Park's supervolcano.
Duration: 1 hr Scoring: 50 points

Study: Brake for Quakes
Try to stay on your feet while you learn what happens when tectonic plates shift suddenly.
Duration: 1 hr

Quiz: Cracking Up
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 3: SCULPTING EARTH

Study: Down and Dirty
Discover what happens when wind, water, and gravity do their dirty work.
Duration: 0 hrs 45 mins

Lab: Investigating How Water Affects Earth's Rock
Complete a lab to investigate how water's ability to dissolve various minerals contributes to the weathering and erosion of rocks.
Duration: 1 hr 30 mins Scoring: 50 points

Study: Karst Topography
Consider how chemical weathering can cause the formation of caves and caverns.
Duration: 1 hr

Study: At a Glacial Pace
When mighty glaciers come your way, you'd better run! Examine how glaciers shape the Earth and discover what they leave behind.
Duration: 1 hr

Lab: Investigate Weathering and Erosion
Complete a lab to build a model using graham crackers to show how continental features are formed by weathering and erosion.
Duration: 1 hr 30 mins Scoring: 50 points

Project: Modeling the Formation of Earth's Features
Complete a project to research the processes that formed two of Earth's features so that you can build a model of them.
Duration: 1 hr 30 mins Scoring: 50 points

Quiz: Wasting Away
Test your understanding of weathering and erosion, karst topography, and glaciers.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 4: THE MOVERS AND SHAKERS WRAP-UP

Review: The Movers and Shakers
Prepare for the unit test by reviewing key concepts and skills.
Duration: 1 hr 30 mins

Test (CS): The Movers and Shakers
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): The Movers and Shakers
Take a teacher-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 70 points

UNIT 9: MINERALS AND ROCKS

LESSON 1: MINERALS

Study: Mining for Minerals

Explore the structure and general characteristics of minerals.

Duration: 1 hr

Study: Identifying Minerals

Explore the unique chemical and physical properties of minerals. Discover tests that geologists use to identify minerals.

Duration: 0 hrs 30 mins

Quiz: Mineral Logic

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 2: IGNEOUS ROCKS

Study: Cool, Magma

Discover how igneous rocks form.

Duration: 1 hr

Study: Fire Up Your Skill

Get fired up about classifying igneous rocks.

Duration: 0 hrs 30 mins

Practice: Classify This: Igneous

Don't get burned as you practice classifying and describing igneous rocks.

Duration: 1 hr Scoring: 50 points

Quiz: Igneous Success

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 3: SEDIMENTARY ROCKS

Study: From Particles to Rock

Describe the formation of clastic, biogenic, and chemical sedimentary rocks and discover some fossils.

Duration: 1 hr

Study: An Assortment of Sediments

Learn how to classify types of sedimentary rocks.

Duration: 0 hrs 30 mins

Practice: Classify This: Sedimentary

Practice classifying and describing sedimentary rocks.

Duration: 1 hr Scoring: 50 points

Quiz: Sedimentary? It's Elementary!

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 4: METAMORPHIC ROCKS

Study: Ch-Ch-Changes

Consider how heat and pressure can change the structure of a rock.

Duration: 1 hr

Study: Arranging Changes

Learn how to classify metamorphic rocks.

Duration: 0 hrs 30 mins

Practice: Classify This: Metamorphic

Practice classifying and describing metamorphic rocks.

Duration: 1 hr Scoring: 50 points

Quiz: Metamorphism
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 5: THE ROCK CYCLE

Study: Rocky Road
Learn about the rock cycle and the forces that drive it.
Duration: 0 hrs 30 mins

Discuss: Rock the Rock Cycle
Discuss the rock cycle.
Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Rock Steady
Practice what you have learned about the rock cycle.
Duration: 1 hr Scoring: 50 points

Quiz: Rock It
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 6: MINERALS AND ROCKS WRAP-UP

Review: Minerals and Rocks
Prepare for the unit test by reviewing key concepts and skills.
Duration: 1 hr 30 mins

Test (CS): Minerals and Rocks
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Minerals and Rocks
Take a teacher-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 70 points

UNIT 10: ALL THE TIME IN THE WORLD

LESSON 1: MEASURING TIME

Project: A Picture Is Worth a Billion Years
Design your own version of the geologic time scale to understand why a picture is worth a billion years.
Duration: 0 hrs 15 mins Scoring: 5 points

Study: Just in Time
Learn how scientists organize geologic time.
Duration: 0 hrs 45 mins

Study: Telling Time
Discover techniques that paleontologists use to date rocks and fossils.
Duration: 1 hr

Study: The Docile Fossil
Learn how to read the fossil record. Discover when it is and is not possible to read between the lines.
Duration: 1 hr

Quiz: Keeping Time
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 2: THE PAST IS VAST

Study: Older Than Dirt

Catch a glimpse of what Earth looked like right after it formed and for the next few billion years or so the Precambrian era.

Duration: 1 hr

Study: Living History

Learn how the Paleozoic and Mesozoic eras supported an explosion of life and continental musical chairs.

Duration: 1 hr

Quiz: Gone But Not Forgotten

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 3: NO TIME LIKE THE PRESENT

Discuss: On the Brink

Discuss extinction from an Earth science point of view with your classmates.

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Now Means Now

Trace the dramatic, climactic changes of the Cenozoic era and discover how scientists study early humans.

Duration: 1 hr

Quiz: Quick! Cenozoic!

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

Project: Reflections: A Picture Is Worth a Billion Years

Draw conclusions about the geologic time scale after designing your own scale.

Duration: 0 hrs 45 mins Scoring: 45 points

LESSON 4: ALL THE TIME IN THE WORLD WRAP-UP

Review: All the Time in the World

Prepare for the unit test by reviewing key concepts and skills.

Duration: 1 hr 30 mins

Test (CS): All the Time in the World

Take a computer-scored test to assess what you have learned in this unit.

Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): All the Time in the World

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 70 points

UNIT 11: EARTH'S RESOURCES

LESSON 1: WHAT FUELS YOU?

Study: Energy Expertise

Examine different methods of energy production, from oil and gas to wind and water.

Duration: 1 hr

Quiz: Energy Bill

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 20 points

Practice: Have an Energy Think

Practice what you know about energy consumption and production.

Duration: 1 hr Scoring: 50 points

Journal: Bigfoot

Capture data about your own energy use and reflect on the size of your ecological footprint.

Duration: 1 hr Scoring: 15 points

Project: Evaluate Wave and Tidal Power Technology
Complete a project to quantify how burning fossil fuels is affecting climate change and evaluate the potential of wave and tidal power to reduce those impacts.
Duration: 1 hr 30 mins Scoring: 50 points

LESSON 2: USE IT AND LOSE IT

Study: Take It to the Limit
Find out how population growth affects Earth's ecosystems and how sustainability is the crucial for the future.
Duration: 0 hrs 45 mins

Quiz: Sustained!
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

Discuss: The Buzz
Discuss the costs and benefits of alternative energy sources with your classmates.
Duration: 0 hrs 30 mins Scoring: 25 points

Lab: Simulate Sustainable Resource Management
Complete a virtual lab to simulate the effects of sustainable and unsustainable agricultural practices.
Duration: 1 hr 30 mins Scoring: 50 points

LESSON 3: EARTH MATTERS

Project: Choosing Energy Solutions
Complete a project to make decisions about energy sources, first as a government leader in a game and then as an engineer using a cost-benefit analysis.
Duration: 1 hr 30 mins Scoring: 50 points

Study: Earth Matters
Explore case studies to see why Earth matters. Or just pick up a newspaper — chances are there's an Earth science issue being discussed in your community right now.
Duration: 1 hr

Practice: Environmental Journalism
Write an article about an environmental issue as if you were writing for your local newspaper.
Duration: 1 hr Scoring: 50 points

Quiz: Testing the Environment
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 15 mins Scoring: 20 points

LESSON 4: EARTH'S RESOURCES WRAP-UP

Review: Earth's Resources
Prepare for the unit test by reviewing key concepts and skills.
Duration: 1 hr 30 mins

Test (CS): Earth's Resources
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Earth's Resources
Take a teacher-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 70 points

UNIT 12: SEMESTER REVIEW AND EXAM

LESSON 1: SEMESTER 2 WRAP-UP

Review: Semester 2 Review

Prepare for the semester exam by reviewing key concepts covered in Semester 2.

Duration: 4 hrs

Exam: Semester 2

Take a computer-scored exam to demonstrate your mastery of concepts and skills covered in Semester 2.

Duration: 0 hrs 40 mins Scoring: 80 points

Final Exam: Semester 2

Take a teacher-scored exam to demonstrate your mastery of concepts and skills covered in Semester 2.

Duration: 1 hr 20 mins Scoring: 120 points