



INSPIRE CALIFORNIA SCIENCE

HIGH SCHOOL – EARTH SCIENCE
CURRICULUM PACING GUIDE

Getting Started

- Students will need the McGraw- Hill Earth Science Textbook, a copy of the Science Notebook (available to complete online in each lesson, fillable pdf or printable pdf), a Science Journal (which is a composition or notebook to keep notes in) and a student login for online materials such as Labs and Assessments. Website <https://my.mheducation.com/login> Username: Student first name and ID number (i.e. Stella95834) Password: Sutterpeak1
- Module Assessments can be printed or assigned to take online. Please discuss with your teacher if you would like the assessments assigned to take online or emailed to you as a pdf to print.
- Students have the option of completing the course by using “Learnsmart/Smartbook” (your teacher can assign it to you per module) where you have access to all of the textbook material online and/or can answer all questions online (from the Science Notebook) as well as assessments, with immediate feedback.

The textbook or pacing guide will indicate when you should access online materials (videos, CER charts, additional activities). You can access them by logging in, click on Lessons, click on “Launch the Presentation” and find the resource you need by clicking “Next Resource” at the bottom or click the three lines in the top left-hand corner of your course, select the module and lesson and then scroll down to the appropriate section (Engage, Explore and Explain, Elaborate or Evaluate) which you can find at the bottom of the page in your textbook.

- You have two options to complete the lab requirement for this class:
 - **Option 1:** Complete labs in this course. There are several labs available in each module. You will need to **complete a minimum of 1 lab per module** and turn in the lab sheets to your teacher. A material list for all of the labs can be obtained from your teacher. Your teacher will need to assign the labs to your student online account and it is suggested to look through the available labs for each module (online) ahead of time, choose which lab(s) you would like to complete, and obtain the materials you need. You can be reimbursed from your student budget for materials and borrow from the Lending Library when materials are available (i.e. microscope, etc.).
 - **Option 2:** Take a corresponding lab class through a community partner for the year. Please talk to your teacher and/or the school counselor for available options.

Module One: Introduction to Earth Science			
6 Days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Introduction to Earth Science	<input type="checkbox"/> Textbook: Pages 2-3 <input type="checkbox"/> Science Notebook: Page 1	<input type="checkbox"/> Lab: Why is precise communication important?	Students will explore the scope, importance, and systems of Earth Science. Students will explore the information used to make maps. Students will explore some of the advanced technology used to make maps.
Day 2 Lesson One: What is Earth Science?	<input type="checkbox"/> Textbook: Pages 4-9 <input type="checkbox"/> Science Notebook: Pages 2-5	<input type="checkbox"/> Lab: Can you make a map? <input type="checkbox"/> Lab: Measurement and SI Units	
Day 3 & 4 Lesson Two: Understanding Maps	<input type="checkbox"/> Textbook: Pages 10-20 <input type="checkbox"/> Science Notebook: Pages 6-12	<input type="checkbox"/> Lab: Observing and Analyzing Stream Flow	
Day 5 Lesson Three: Remote Sensing	<input type="checkbox"/> Textbook: Pages 21-27 <input type="checkbox"/> Science Notebook: Pages 13-16	<input type="checkbox"/> Lab: Determine the Relationship Between Variables	
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 28-29 <input type="checkbox"/> Module Assessment	<input type="checkbox"/> Lab: Use a Topographic Map <input type="checkbox"/> Lab: Interpreting Political and Landform Maps <input type="checkbox"/> Lab: Modeling Topographic Maps <input type="checkbox"/> Lab: Locate Places on Earth	
Unit 1: Composition of Earth			
Module Two: Matter and Change			
6 days			
Days	Assignments	Labs	Focus
Day 1 Unit Opener (cont.)	<input type="checkbox"/> Textbook: Page 31 <input type="checkbox"/> Online: STEM Unit Project Planner- Rock Cycle	<input type="checkbox"/> Lab: What do fortified cereals contain?	Students will explore atoms, isotopes, and ions.

Module Opener: Matter and Change	<input type="checkbox"/> Textbook: Pages 32-33 <input type="checkbox"/> Science Notebook: Page 17	<input type="checkbox"/> Lab: Identify Elements	<p>Students will explore how atoms, molecules, and compounds combine to form new molecules or compounds.</p> <p>Students will explore the different states of matter, and how matter can change from one state to another.</p>
Day 2 Lesson One: Matter	<input type="checkbox"/> Textbook: Pages 34-39 <input type="checkbox"/> Science Notebook: Pages 18-22 <input type="checkbox"/> PhET Simulation: Build an Atom	<input type="checkbox"/> Lab: Precipitate Salt <input type="checkbox"/> Lab: Rates of Chemical Reactions	
Days 3-4 Lesson Two: Combining Matter	<input type="checkbox"/> Textbook: Pages 40-46 <input type="checkbox"/> Science Notebook: Pages 23-27		
Day 5 Lesson Three: States of Matter	<input type="checkbox"/> Textbook: Pages 47-49 <input type="checkbox"/> Science Notebook: Pages 28-32 <input type="checkbox"/> PhET Simulation: pH Scale Basics		
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 50-52 <input type="checkbox"/> Module Assessment		

Module Three: Minerals
7 Days

Days	Assignments	Labs	Focus
Day 1 Module Opener: Minerals	<input type="checkbox"/> Textbook: Page 54 <input type="checkbox"/> Science Notebook: Page 33	<input type="checkbox"/> Lab: What shapes do mineral form?	<p>Students will explore the characteristics and properties of minerals.</p> <p>Students will explore the different types of minerals.</p>
Days 2 & 3 Lesson One: What is a Mineral?	<input type="checkbox"/> Textbook: Pages 55-64 <input type="checkbox"/> Science Notebook: Pages 34-38	<input type="checkbox"/> Lab: Make a Field Guide for Minerals	
Days 4-6 Lesson Two: Types of Minerals	<input type="checkbox"/> Textbook: Pages 65-72 <input type="checkbox"/> Science Notebook: Pages 39-42	<input type="checkbox"/> Lab: Recognize Cleavage and Fracture	
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 73-74 <input type="checkbox"/> Module Assessment	<input type="checkbox"/> Lab: Growing Crystals	

Module Four: Rocks
8 Days

Days	Assignments	Labs	Focus
Day 1 Module Opener: Rocks	<input type="checkbox"/> Textbook: Page 76 <input type="checkbox"/> Science Notebook: Page 43	<input type="checkbox"/> Lab: How are minerals identified?	<p>Students will explore what igneous rocks are, how they form, what their compositions are,</p>
Days 2-3 Lesson One: Igneous Rocks	<input type="checkbox"/> Textbook: Pages 77-87 <input type="checkbox"/> Science Notebook: Pages 44-49	<input type="checkbox"/> Lab: What happened here?	

Days 4-5 Lesson Two: Sedimentary Rocks	<input type="checkbox"/> Textbook: Pages 88-97 <input type="checkbox"/> Science Notebook: Pages 50-55	<input type="checkbox"/> Lab: Model Crystal Formation	<p>and some of their uses.</p> <p>Students will explore what sedimentary rocks are, how they form, and what their features are.</p> <p>Students will explore what metamorphic rocks are, how they form, what their features are, and why they are economically important.</p>
Days 6-7 Lesson Three: Metamorphic Rocks	<input type="checkbox"/> Textbook: Pages 98-105 <input type="checkbox"/> Science Notebook: Pages 56-60	<input type="checkbox"/> Lab: Comparing Lunar Rocks to Earth Rocks <input type="checkbox"/> Lab: Locating Igneous Rocks on Earth	
Day 8 Module Wrap-Up STEM Unit Project	<input type="checkbox"/> Textbook: Pages 106-107 <input type="checkbox"/> Module Assessment <input type="checkbox"/> Complete and present STEM unit project on the Rock Cycle	<input type="checkbox"/> Lab: Interpret Changes in Rocks <input type="checkbox"/> Lab: Comparing Chemical Sedimentary Rocks and Modeling Their Formation <input type="checkbox"/> Lab: Grand Canyon Formations <input type="checkbox"/> Lab: Model Sediment Layering	

Unit 2: Surface Processes on Earth

Module Five: Weathering, Erosion and Soil
7 days

Days	Assignments	Labs	Focus
Day 1 Unit Opener Module Opener: Weathering, Erosion and Soil	<input type="checkbox"/> Textbook: Page 109 <input type="checkbox"/> Online: STEM Unit Project Planner- Investigating Erosion <input type="checkbox"/> Textbook: Pages 111 <input type="checkbox"/> Science Notebook: Page 61	<input type="checkbox"/> Lab: How does change relate to surface area? <input type="checkbox"/> Lab: Model Mineral Weathering <input type="checkbox"/> Lab: Chemical Weathering and Temperature	<p>Students will explore mechanical and chemical weather, and what affects the rate at which it occurs.</p> <p>Students will explore erosion and deposition.</p>
Day 2-3 Lesson One: Weathering	<input type="checkbox"/> Textbook: Pages 112-118 <input type="checkbox"/> Science Notebook: Pages 62-66	<input type="checkbox"/> Lab: Model Erosion	

Day 4 Lesson Two: Erosion and Deposition	<input type="checkbox"/> Textbook: Pages 119-123 <input type="checkbox"/> Science Notebook: Pages 67-72	<input type="checkbox"/> Lab: Global Soils and Climate	Students will explore soil formation and soil characteristics.
Day 5-6 Lesson Three: Soil	<input type="checkbox"/> Textbook: Pages 124-132 <input type="checkbox"/> Science Notebook: Pages 73-78 <input type="checkbox"/>		
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 133-134 <input type="checkbox"/> Module Assessment		
Module Six: Mass Movements, Wind, and Glaciers 6 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Weathering, Erosion and Soil	<input type="checkbox"/> Textbook: Pages 136 <input type="checkbox"/> Science Notebook: Page 79	<input type="checkbox"/> Lab: How does water affect sediments on slopes? <input type="checkbox"/> Lab: Map a Landslide <input type="checkbox"/> Lab: How does wind erosion take place? <input type="checkbox"/> Lab: Model Glacial Deposition	Students will explore what mass movements are, the differences between the types, and their effects. Students will explore wind erosion and deposition. Students will explore types of glaciers and glacial erosion and deposition.
Day 2 Lesson One: Mass Movements	<input type="checkbox"/> Textbook: Pages 137-143 <input type="checkbox"/> Science Notebook: Pages 80-84		
Day 3 Lesson Two: Wind	<input type="checkbox"/> Textbook: Pages 144-149 <input type="checkbox"/> Science Notebook: Pages 85-89		
Day 4-5 Lesson Three: Glaciers	<input type="checkbox"/> Textbook: Pages 150-155 <input type="checkbox"/> Science Notebook: Pages 90-94 <input type="checkbox"/> Online: PhET Simulation: Glaciers		
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 156-157 <input type="checkbox"/> Module Assessment		

Module Seven: Water 10 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Water	<input type="checkbox"/> Textbook: Pages 159 <input type="checkbox"/> Science Notebook: Page 95	<input type="checkbox"/> Lab: How does water infiltrate?	<p>Students will explore what mass movements are, the differences between the types, and their effects.</p> <p>Students will explore wind erosion and deposition.</p> <p>Students will explore types of glaciers and glacial erosion and deposition.</p>
Day 2 Lesson One: Surface Water Movement	<input type="checkbox"/> Textbook: Pages 160-168 <input type="checkbox"/> Science Notebook: Pages 96-100	<input type="checkbox"/> Lab: How is water store underground? <input type="checkbox"/> Lab: Analyzing Watersheds	
Day 3-5 Lesson Two: Streams, Lakes, and Wetlands	<input type="checkbox"/> Textbook: Pages 169-176 <input type="checkbox"/> Science Notebook: Pages 101-105	<input type="checkbox"/> Lab: Model Lake Formation	
Day 6-8 Lesson Three: Groundwater	<input type="checkbox"/> Textbook: Pages 177-185 <input type="checkbox"/> Science Notebook: Pages 106-111	<input type="checkbox"/> Lab: Track Groundwater Pollution	
Day 9 Lesson Four: Groundwater Weathering and Deposition	<input type="checkbox"/> Textbook: Pages 186-191 <input type="checkbox"/> Science Notebook: Pages 112-114	<input type="checkbox"/> Lab: Measuring Permeability Rate <input type="checkbox"/> Lab: Model an Artesian Well	
Day 10 Module Wrap-Up STEM Unit Project	<input type="checkbox"/> Textbook: Pages 192-193 <input type="checkbox"/> Module Assessment <input type="checkbox"/> Complete and present STEM unit project on Investigating Erosion		
Unit 3: The Atmosphere and Oceans			
Module Eight: Atmosphere 8 days			
Days	Assignments	Labs	Focus
Day 1 Unit Opener Module Opener: Atmosphere	<input type="checkbox"/> Textbook: Page 195 <input type="checkbox"/> Online: STEM Unit Project Planner- Global Climate Change <input type="checkbox"/> Textbook: Pages 197	<input type="checkbox"/> Lab: What causes cloud formation? <input type="checkbox"/> Lab: Interpret Pressure-	<p>Students will explore the structure and composition of the atmosphere.</p> <p>Students will explore air pressure,</p>

	<input type="checkbox"/> Science Notebook: Page 115	Temperature Relationships <input type="checkbox"/> Lab: Temperature Inversion <input type="checkbox"/> Lab: Investigate Dew Formation	temperature, and humidity. Students will explore the types and formation of clouds and precipitation.
Day 2-3 Lesson One: Atmospheric Basics	<input type="checkbox"/> Textbook: Pages 198-205 <input type="checkbox"/> Science Notebook: Pages 116-119 <input type="checkbox"/> Online: PhET Simulation: The Greenhouse Effect		
Day 4-5 Lesson Two: Properties of the Atmosphere	<input type="checkbox"/> Textbook: Pages 206-213 <input type="checkbox"/> Science Notebook: Pages 120-124		
Day 6-7 Lesson Three: Clouds and Precipitation	<input type="checkbox"/> Textbook: Pages 214-221 <input type="checkbox"/> Science Notebook: Pages 125-128		
Day 8 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 222-223 <input type="checkbox"/> Module Assessment		
Module Nine: Meteorology 7 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Meteorology	<input type="checkbox"/> Textbook: Pages 225 <input type="checkbox"/> Science Notebook: Page 129	<input type="checkbox"/> Lab: How does a cold air mass form? <input type="checkbox"/> Lab: Modeling the Coriolis Effect <input type="checkbox"/> Lab: Interpret a Weather Map	Students will explore air masses and the imbalance heating of Earth. Students will explore how wind and air masses interact to create weather. Students will explore the tools used to measure and track weather. Students will explore the methods and tools used to predict weather.
Day 2 Lesson One: The Causes of Weather	<input type="checkbox"/> Textbook: Pages 226-229 <input type="checkbox"/> Science Notebook: Pages 130-134		
Days 3-4 Lesson Two: Weather Systems	<input type="checkbox"/> Textbook: Pages 230-236 <input type="checkbox"/> Science Notebook: Pages 135-139		
Day 5 Lesson Three: Gathering Weather Data	<input type="checkbox"/> Textbook: Pages 237-241 <input type="checkbox"/> Science Notebook: Pages 140-143		
Day 6 Lesson Four: Weather Analysis and Prediction	<input type="checkbox"/> Textbook: Pages 242-246		

	<input type="checkbox"/> Science Notebook: Pages 144-147		
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 247-248 <input type="checkbox"/> Module Assessment		
Module Ten: The Nature of Storms 6 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: The Nature of Storms	<input type="checkbox"/> Textbook: Pages 250 <input type="checkbox"/> Science Notebook: Page 149	<input type="checkbox"/> Lab: Why does lightning form?	Students will explore the structure and creation of thunderstorms.
Day 2 Lesson One: Thunderstorms	<input type="checkbox"/> Textbook: Pages 251-256 <input type="checkbox"/> Science Notebook: Pages 150-154	<input type="checkbox"/> Lab: Observing Flood Damage <input type="checkbox"/> Lab: Model Flood Conditions	Students will explore severe thunderstorms.
Day 3 Lesson Two: Severe Weather	<input type="checkbox"/> Textbook: Pages 257-261 <input type="checkbox"/> Science Notebook: Pages 155-159		Students will explore the formation, structure, and effects of tropical cyclones.
Day 4 Lesson Three: Tropical Storms	<input type="checkbox"/> Textbook: Pages 262-268 <input type="checkbox"/> Science Notebook: Pages 160-164		Students will explore flood, heat waves, and other recurrent weather.
Day 5 Lesson Four: Recurrent Weather	<input type="checkbox"/> Textbook: Pages 269-273 <input type="checkbox"/> Science Notebook: Pages 165-169		
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 274-275 <input type="checkbox"/> Module Assessment		
Module Eleven: Climate 11 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Climate	<input type="checkbox"/> Textbook: Pages 277 <input type="checkbox"/> Science Notebook: Page 171	<input type="checkbox"/> Lab: How can you model cloud cover?	Students will explore the causes of climate.
Days 2-3 Lesson One: Defining Climate	<input type="checkbox"/> Textbook: Pages 278-282 <input type="checkbox"/> Science Notebook: Pages 172-175	<input type="checkbox"/> Lab: Identify a Microclimate	Students will explore the properties of climates and how to classify them.

Days 4-5 Lesson Two: Climate Classification	<input type="checkbox"/> Textbook: Pages 283-288 <input type="checkbox"/> Science Notebook: Pages 176-179	<input type="checkbox"/> Lab: Heat Absorption Over Land and Water	<p>Students will explore the natural processes that drive climatic patterns and changes.</p> <p>Students will explore how human activities affect the Earth's climate.</p>
Days 6-7 Lesson Three: Climate Changes and Patterns	<input type="checkbox"/> Textbook: Pages 289-295 <input type="checkbox"/> Science Notebook: Pages 180-184	<input type="checkbox"/> Lab: Classifying Climates <input type="checkbox"/> Lab: Model the Greenhouse Effect	
Days 8-10 Lesson Four: Impact of Human Activities	<input type="checkbox"/> Textbook: Pages 296-299 <input type="checkbox"/> Science Notebook: Pages 185-188		
Day 11 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 300-301 <input type="checkbox"/> Module Assessment		
Module Twelve: Earth's Oceans 10 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Earth's Oceans	<input type="checkbox"/> Textbook: Pages 303 <input type="checkbox"/> Science Notebook: Page 189	<input type="checkbox"/> Lab: How much of Earth's surface is covered by water? <input type="checkbox"/> Lab: Where does chalk form?	<p>Students will explore the origin and properties of the oceans.</p>
Days 2-4 Lesson One: An Overview of Oceans	<input type="checkbox"/> Textbook: Pages 304-316 <input type="checkbox"/> Science Notebook: Pages 190-196	<input type="checkbox"/> Lab: Model Water Masses	<p>Students will explore the movement of water in the oceans.</p>
Days 5-6 Lesson Two: Ocean Movement	<input type="checkbox"/> Textbook: Pages 317-322 <input type="checkbox"/> Science Notebook: Pages 197-200	<input type="checkbox"/> Lab: Observing Brine Shrimp	<p>Students will explore sea floor and shoreline features.</p>
Days 7-9 Lesson Three: Shoreline and Seafloor Features	<input type="checkbox"/> Textbook: Pages 323-337 <input type="checkbox"/> Science Notebook: Pages 201-206	<input type="checkbox"/> Lab: Changes in Sea Level <input type="checkbox"/> Lab: Making Waves	
Day 10 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 338-339 <input type="checkbox"/> Module Assessment	<input type="checkbox"/> Lab: Ocean Surface Temperatures	
STEM Unit Project	<input type="checkbox"/> Complete and present STEM unit project on Global Climate Change	<input type="checkbox"/> Lab: Identify Coastal Landforms	

		<input type="checkbox"/> Lab: Measure Sediment Setting Rates	
Unit 4: The Dynamic Earth			
Module Thirteen: Plate Tectonics 7 days			
Days	Assignments	Labs	Focus
Day 1 Unit Opener Module Opener: Plate Tectonics	<input type="checkbox"/> Textbook: Page 341 <input type="checkbox"/> Online: STEM Unit Project Planner- Plate Tectonics <input type="checkbox"/> Textbook: Pages 343 <input type="checkbox"/> Science Notebook: Page 207	<input type="checkbox"/> Lab: Is California moving? <input type="checkbox"/> Lab: Earthquakes and Subduction Zones <input type="checkbox"/> Lab: Model Plate Boundaries and Isochrons <input type="checkbox"/> Lab: Model Ocean-Basin Formation	Students will explore the history of and the evidence of continental drift. Students will explore how the ocean floor is mapped and what was discovered about ocean rocks and sediment.
Day 2 Lesson One: Drifting Continents	<input type="checkbox"/> Textbook: Pages 344-348 <input type="checkbox"/> Science Notebook: Pages 208-211		Students will explore the theory of plate tectonics and the differences between divergent, convergent, and transform boundaries.
Day 3 Lesson Two: Seafloor Spreading	<input type="checkbox"/> Textbook: Pages 349-355 <input type="checkbox"/> Science Notebook: Pages 212-216		Students will explore how convection and density are related to the movements of tectonic plates.
Day 4-5 Lesson Three: Plate Boundaries	<input type="checkbox"/> Textbook: Pages 356-361 <input type="checkbox"/> Science Notebook: Pages 217-221		
Day 6 Lesson Four: Causes of Plate Motions	<input type="checkbox"/> Textbook: Pages 362-365 <input type="checkbox"/> Science Notebook: Pages 222-225 <input type="checkbox"/> Online: PhET Simulation: Plate Tectonics		
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 366-367 <input type="checkbox"/> Module Assessment		

Module Fourteen: Volcanism			
6 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Volcanism	<input type="checkbox"/> Textbook: Pages 369 <input type="checkbox"/> Science Notebook: Page 227	<input type="checkbox"/> Lab: What makes magma rise?	Students will explore where volcanoes happen, the parts of a volcano, and the types of volcanoes. Students will explore how magma is made, what it is made of, the types of magma, and types of eruptions possible. Students will explore plutons and tectonics.
Days 2-3 Lesson One: Volcanoes	<input type="checkbox"/> Textbook: Pages 370-377 <input type="checkbox"/> Science Notebook: Pages 228-233	<input type="checkbox"/> Lab: Model a Caldera <input type="checkbox"/> Lab: Predict the Safety of a Volcano	
Day 4 Lesson Two: Eruptions	<input type="checkbox"/> Textbook: Pages 378-383 <input type="checkbox"/> Science Notebook: Pages 234-237	<input type="checkbox"/> Lab: Analyzing Volcanic-Disaster Risk	
Day 5 Lesson Three: Intrusive Activity	<input type="checkbox"/> Textbook: Pages 384-388 <input type="checkbox"/> Science Notebook: Pages 238-242		
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 389-390 <input type="checkbox"/> Module Assessment		
Module Fifteen: Earthquakes			
8 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Earthquakes	<input type="checkbox"/> Textbook: Pages 392 <input type="checkbox"/> Science Notebook: Page 243	<input type="checkbox"/> Lab: What can cause an earthquake? <input type="checkbox"/> Lab: Relate Epicenters and Plate Tectonics	Students will explore stress and strain, faults, and types of seismic waves. Students will explore seismometers and seismograms and what they can tell us about Earth's interior. Students will explore earthquake magnitude and intensity, how to locate an earthquake, and
Day 2 Lesson One: Forces Within Earth	<input type="checkbox"/> Textbook: Pages 393-398 <input type="checkbox"/> Science Notebook: Pages 244-247	<input type="checkbox"/> Lab: Make a Map	
Day 3 Lesson Two: Seismic Waves and Earth's Interior	<input type="checkbox"/> Textbook: Pages 399-403 <input type="checkbox"/> Science Notebook: Pages 248-251	<input type="checkbox"/> Lab: Predicting Earthquakes	
Days 4-5 Lesson Three: Measuring and Locating Earthquakes	<input type="checkbox"/> Textbook: Pages 404-409 <input type="checkbox"/> Science Notebook: Pages 252-256		

Days 6-7 Lesson Four: Earthquakes and Society	<input type="checkbox"/> Textbook: Pages 410-417 <input type="checkbox"/> Science Notebook: Pages 257- 260		<p>where earthquakes are most likely to happen.</p> <p>Students will explore earthquake hazards and earthquake forecasting.</p>
Day 8 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 418-419 <input type="checkbox"/> Module Assessment		

Module Sixteen: Mountain Building
6 days

Days	Assignments	Labs	Focus
Day 1 Module Opener: Mountain Building	<input type="checkbox"/> Textbook: Pages 421 <input type="checkbox"/> Science Notebook: Page 261	<input type="checkbox"/> Lab: How does crust displace the mantle?	<p>Students will explore Earth’s topography and isostasy.</p> <p>Students will explore mountain building at convergent boundaries.</p> <p>Students will explore divergent-boundary, uplifted, and fault-block mountain building.</p>
Day 2 Lesson One: Crust-Mantle Relationships	<input type="checkbox"/> Textbook: Pages 422-426 <input type="checkbox"/> Science Notebook: Pages 262-265	<input type="checkbox"/> Lab: Model Isostatic Rebound <input type="checkbox"/> Lab: Plate Tectonics of North America	
Day 3-4 Lesson Two: Orogeny	<input type="checkbox"/> Textbook: Pages 427-433 <input type="checkbox"/> Science Notebook: Pages 266-269	<input type="checkbox"/> Lab: Analysis of Geologic Maps	
Day 5 Lesson Three: Other Types of Mountain Building	<input type="checkbox"/> Textbook: Pages 434-437 <input type="checkbox"/> Science Notebook: Pages 270-273	<input type="checkbox"/> Lab: Make a Map Profile	
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 438-439 <input type="checkbox"/> Module Assessment		
STEM Unit Project	<input type="checkbox"/> Complete and present STEM unit project on Plate Tectonics		

Unit 5: Geologic Time

**Module Seventeen: Fossils and the Rock Record
8 days**

Days	Assignments	Labs	Focus
Day 1 Unit Opener	<input type="checkbox"/> Textbook: Page 441 <input type="checkbox"/> Online: STEM Unit Project Planner- Earth’s Geologic Past	<input type="checkbox"/> Lab: How are fossils made? <input type="checkbox"/> Lab: Interpret History-Shaping Events	Students will explore how time is organized by the geologic time scale.
Module Opener: Fossils and the Rock Record	<input type="checkbox"/> Textbook: Pages 443 <input type="checkbox"/> Science Notebook: Page 275	<input type="checkbox"/> Lab: Determine Relative Age	Students will explore the principles for determining the relative age of rocks.
Days 2-3 Lesson One: The Rock Record	<input type="checkbox"/> Textbook: Pages 444-449 <input type="checkbox"/> Science Notebook: Pages 276-281	<input type="checkbox"/> Lab: Fossilization and Earth’s History	Students will explore how to do radiometric and other types of dating.
Days 4-5 Lesson Two: Relative-Age Dating	<input type="checkbox"/> Textbook: Pages 450-456 <input type="checkbox"/> Science Notebook: Pages 282-288		Students will explore the fossil record.
Day 6 Lesson Three: Absolute-Age Dating	<input type="checkbox"/> Textbook: Pages 457-461 <input type="checkbox"/> Science Notebook: Pages 289-292 <input type="checkbox"/> Online: PhET Simulation: Radioactive Dating Game		
Day 7 Lesson Four: Fossils Remains	<input type="checkbox"/> Textbook: Pages 462-466 <input type="checkbox"/> Science Notebook: Pages 293-296		
Day 8 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 467-468 <input type="checkbox"/> Module Assessment		

**Module Eighteen: Geologic Time Scale
8 days**

Days	Assignments	Labs	Focus
Day 1 Module Opener: Geologic Time Scale	<input type="checkbox"/> Textbook: Pages 470 <input type="checkbox"/> Science Notebook: Page 297	<input type="checkbox"/> Lab: How do liquids of different	Students will explore the evidence of early Earth.

<p>Day 2 Lesson One: Early Earth</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Textbook: Pages 471-478 <input type="checkbox"/> Science Notebook: Pages 298-303 <input type="checkbox"/> Lab: Map Continental Growth <input type="checkbox"/> Lab: Sequencing Time 	<p>densities model early Earth?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lab: How is oil stored in rocks? 	<p>Students will explore the formation of the atmosphere, the ocean, and early life.</p> <p>Students will explore Paleozoic paleogeography, sea-level changes, mountain building, and life.</p> <p>Students will explore Mesozoic paleogeography, mountain building, and life.</p> <p>Students will explore Cenozoic paleogeography, mountain building, and life.</p>
<p>Days 3-4 Lesson Two: The Atmosphere, Oceans, and Early Life on Earth</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Textbook: Pages 479-487 <input type="checkbox"/> Science Notebook: Pages 304-308 <input type="checkbox"/> Lab: What came first? <input type="checkbox"/> Lab: Model Red Bed Formation 		
<p>Day 5 Lesson Three: The Paleozoic Era</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Textbook: Pages 488-494 <input type="checkbox"/> Science Notebook: Pages 309-312 <input type="checkbox"/> Lab: Water to Land 		
<p>Day 6 Lesson Four: The Mesozoic Era</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Textbook: Pages 495-499 <input type="checkbox"/> Science Notebook: Pages 313-316 <input type="checkbox"/> Lab: Solve Dinosaur Fossil Puzzles <input type="checkbox"/> Lab: Model Continental Shelf Area 		
<p>Day 7 Lesson Five: The Cenozoic Era</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Textbook: Pages 500-506 <input type="checkbox"/> Science Notebook: Pages 317-319 <input type="checkbox"/> Lab: Cenozoic Ice Sheets and Plant Distribution 		
<p>Day 8 Module Wrap-Up (cont.) STEM Unit Project</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Textbook: Pages 507-509 <input type="checkbox"/> Module Assessment <input type="checkbox"/> Complete and present STEM unit project on Earth's Geologic Past 		

Unit 6: Resources and the Environment

Module Nineteen: Earth Resources

9 days

Days	Assignments	Labs	Focus
Day 1 Unit Opener Module Opener: Earth Resources	<input type="checkbox"/> Textbook: Page 511 <input type="checkbox"/> Online: STEM Unit Project Planner- Actions that Impact Water Resources <input type="checkbox"/> Textbook: Pages 513 <input type="checkbox"/> Science Notebook: Page 321	<input type="checkbox"/> Lab: What natural resources do you use in your classroom? <input type="checkbox"/> Lab: Can you identify sources of energy?	Students will explore renewable and nonrenewable resources. Students will explore resources found in Earth’s crust.
Day 2 Lesson One: Natural Resources	<input type="checkbox"/> Textbook: Pages 514-517 <input type="checkbox"/> Science Notebook: Pages 322-325	<input type="checkbox"/> Lab: Assessing Wind Energy <input type="checkbox"/> Lab: Monitor Daily Water Usage	Students will explore the atmosphere as a resource.
Day 3 Lesson Two: Land Resources	<input type="checkbox"/> Textbook: Pages 518-522 <input type="checkbox"/> Science Notebook: Pages 326-329	<input type="checkbox"/> Lab: Water Usage	Students will explore freshwater resources and their use.
Day 4 Lesson Three: Air Resources	<input type="checkbox"/> Textbook: Pages 523-528 <input type="checkbox"/> Science Notebook: Pages 330-333	<input type="checkbox"/> Lab: Determine the Harness of Water <input type="checkbox"/> Lab: Model Oil Migration	Students will explore the resource options we have to meet our energy needs.
Day 5 Lesson Four: Water Resources	<input type="checkbox"/> Textbook: Pages 529-533 <input type="checkbox"/> Science Notebook: Pages 334-338		
Day 6-8 Lesson Five: Energy Resources	<input type="checkbox"/> Textbook: Pages 534-546 <input type="checkbox"/> Science Notebook: Pages 339-345		
Day 9 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 547-548 <input type="checkbox"/> Module Assessment		

Module Twenty: Human Impact on Resources
8 days

Days	Assignments	Labs	Focus
Day 1 Module Opener: Human Impact on Resources	<input type="checkbox"/> Textbook: Pages 550 <input type="checkbox"/> Science Notebook: Page 347	<input type="checkbox"/> Lab: What resources are used in classroom items?	Students will explore population growth and limits to such growth.
Day 2 Lesson One: Populations and Use of Natural Resources	<input type="checkbox"/> Textbook: Pages 551-553 <input type="checkbox"/> Science Notebook: Pages 348-351	<input type="checkbox"/> Lab: Model Nutrient Loss <input type="checkbox"/> Lab: Pinpoint a Source of Pollution	Students will explore the effect of land use on Earth.
Day 3 Lesson Two: Human Impact on Land Resources	<input type="checkbox"/> Textbook: Pages 554-560 <input type="checkbox"/> Science Notebook: Pages 352-355	<input type="checkbox"/> Lab: Algal Blooms	Students will explore the effects of human activity on the atmosphere.
Day 4 Lesson Three: Human Impact on Air Resources	<input type="checkbox"/> Textbook: Pages 561-565 <input type="checkbox"/> Science Notebook: Pages 356-359	<input type="checkbox"/> Lab: Design an Energy-Efficient Building	Students will explore the effect of pollution and overuse on water resources.
Day 5 Lesson Four: Human Impact on Water Resources	<input type="checkbox"/> Textbook: Pages 566-568 <input type="checkbox"/> Science Notebook: Pages 360-363		Students will explore energy efficiency.
Day 6-7 Lesson Five: Human Impact on Energy Resources	<input type="checkbox"/> Textbook: Pages 569-573 <input type="checkbox"/> Science Notebook: Pages 364-366		
Day 8 Module Wrap-Up STEM Unit Project	<input type="checkbox"/> Textbook: Pages 574-575 <input type="checkbox"/> Module Assessment <input type="checkbox"/> Complete and present STEM unit project on: Actions that Impact Water Resources		

Unit 7: Beyond Earth

**Module Twenty-One: The Sun-Earth-Moon System
8 days**

Days	Assignments	Labs	Focus
Day 1 Unit Opener Module Opener: The Sun-Earth-Moon System	<input type="checkbox"/> Textbook: Page 577 <input type="checkbox"/> Online: STEM Unit Project Planner- Stellar Evolution <input type="checkbox"/> Textbook: Pages 579 <input type="checkbox"/> Science Notebook: Page 367	<input type="checkbox"/> Lab: How can the Sun-Earth-Moon system be modeled? <input type="checkbox"/> Lab: Make Your Own Telescope <input type="checkbox"/> Lab: Determining Relative Ages of Lunar Features	Students will explore the tools and methods of astronomy. Students will explore the Moon. Students will explore the movements of the Sun, Moon and Earth relative to each other.
Day 2 Lesson One: Tools of Astronomy	<input type="checkbox"/> Textbook: Pages 580-585 <input type="checkbox"/> Science Notebook: Pages 368-371	<input type="checkbox"/> Lab: Predict the Sun's Summer Solstice Position	
Days 3-4 Lesson Two: The Moon	<input type="checkbox"/> Textbook: Pages 586-590 <input type="checkbox"/> Science Notebook: Pages 372-375		
Day 5-7 Lesson Three: The Sun-Earth-Moon System	<input type="checkbox"/> Textbook: Pages 591-601 <input type="checkbox"/> Science Notebook: Pages 376-380		
Day 8 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 602-603 <input type="checkbox"/> Module Assessment		

**Module Twenty-Two: Our Solar System
7 days**

Days	Assignments	Labs	Focus
Day 1 Module Opener: Our Solar System	<input type="checkbox"/> Textbook: Pages 605 <input type="checkbox"/> Science Notebook: Page 381	<input type="checkbox"/> Lab: What can be learned from space missions?	Students will explore the formation, scale, and motion of objects in our solar system.
Days 2-3 Lesson One: Formation of the Solar System	<input type="checkbox"/> Textbook: Pages 606-613 <input type="checkbox"/> Science Notebook: Pages 382-386	<input type="checkbox"/> Lab: Explore Eccentricity <input type="checkbox"/> Lab: Your Age and Weight on Other Planets	Students will explore the terrestrial planet.

Day 4 Lesson Two: The Inner Planets	<input type="checkbox"/> Textbook: Pages 614-620 <input type="checkbox"/> Science Notebook: Pages 387-390	<input type="checkbox"/> Lab: Model the Solar System	<p>Students will explore the gas giant planets.</p> <p>Students will explore dwarf planets and other solar system bodies.</p>
Day 5 Lesson Three: The Outer Planets	<input type="checkbox"/> Textbook: Pages 621-625 <input type="checkbox"/> Science Notebook: Pages 391-394		
Days 6 Lesson Four: Other Solar System Objects	<input type="checkbox"/> Textbook: Pages 626-630 <input type="checkbox"/> Science Notebook: Pages 395-398		
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 631-632 <input type="checkbox"/> Module Assessment		
Module Twenty-Three: Stars 5 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Our Solar System	<input type="checkbox"/> Textbook: Pages 634 <input type="checkbox"/> Science Notebook: Page 399	<input type="checkbox"/> Lab: How can you observe sunspots?	<p>Students will explore emission and absorption spectra and the structure of the Sun.</p> <p>Students will explore the measurement and classification of stars.</p> <p>Students will explore the life cycle of stars.</p>
Day 2 Lesson One: The Sun	<input type="checkbox"/> Textbook: Pages 635-641 <input type="checkbox"/> Science Notebook: Pages 400-407	<input type="checkbox"/> Lab: Identify Stellar Spectral Lines <input type="checkbox"/> Lab: Diameter and Rotation of the Sun	
Day 3 Lesson Two: Measuring the Stars	<input type="checkbox"/> Textbook: Pages 642-651 <input type="checkbox"/> Science Notebook: Pages 408-412	<input type="checkbox"/> Lab: Constellations and the Seasons	
Day 4 Lesson Three: Stellar Evolution	<input type="checkbox"/> Textbook: Pages 652-658 <input type="checkbox"/> Science Notebook: Pages 413-418	<input type="checkbox"/> Lab: Model Parallax	
Day 5 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 659-660 <input type="checkbox"/> Module Assessment		

Module Twenty-Four: Galaxies and the Universe			
8 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Galaxies and the Universe	<input type="checkbox"/> Textbook: Pages 662 <input type="checkbox"/> Science Notebook: Page 419	<input type="checkbox"/> Lab: How big is the Milky Way? <input type="checkbox"/> Lab: Classify Galaxies	Students will explore the Milky Way Galaxy.
Days 2-3 Lesson One: The Milky Way Galaxies	<input type="checkbox"/> Textbook: Pages 663-669 <input type="checkbox"/> Science Notebook: Pages 420-423	<input type="checkbox"/> Lab: Modeling Spiral Galaxies	Students will explore the structure of galaxies and galaxy cluster.
Days 4-5 Lesson Two: Other Galaxies in the Universe	<input type="checkbox"/> Textbook: Pages 670-678 <input type="checkbox"/> Science Notebook: Pages 424-427	<input type="checkbox"/> Lab: Three-Dimensional Map of the Local Group	Students will explore origin and demise of the universe.
Days 6-7 Lesson Three: Cosmology	<input type="checkbox"/> Textbook: Pages 679-683 <input type="checkbox"/> Science Notebook: Pages 428-431	<input type="checkbox"/> Lab: Model Expansion	
Day 8 Module Wrap-Up STEM Unit Project	<input type="checkbox"/> Textbook: Pages 684-685 <input type="checkbox"/> Module Assessment <input type="checkbox"/> Complete and present STEM unit project on: Stellar Evolution		