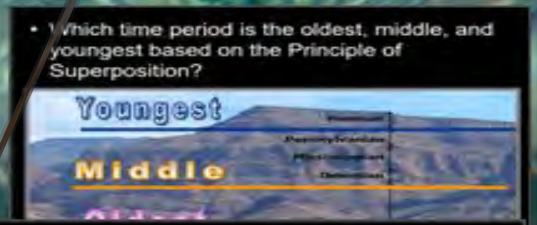
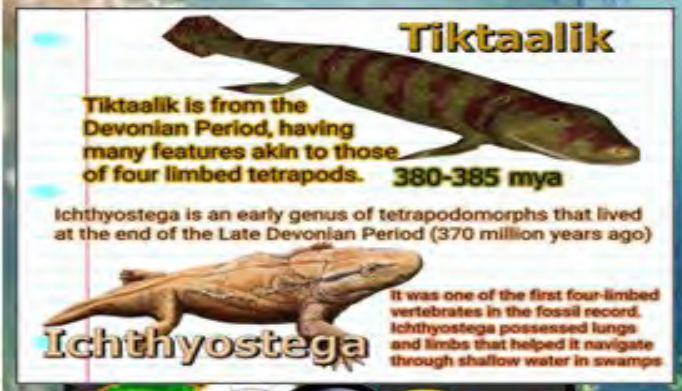
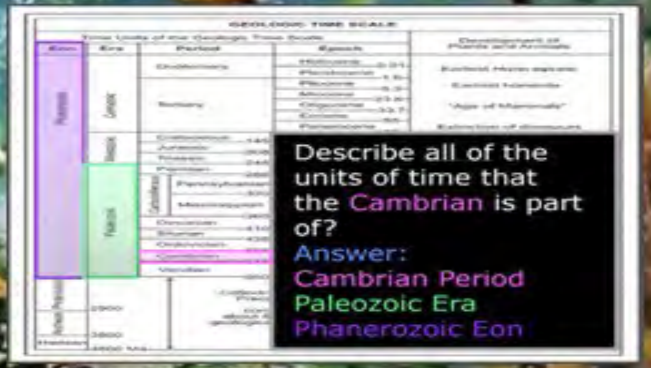
Earth System History Unit



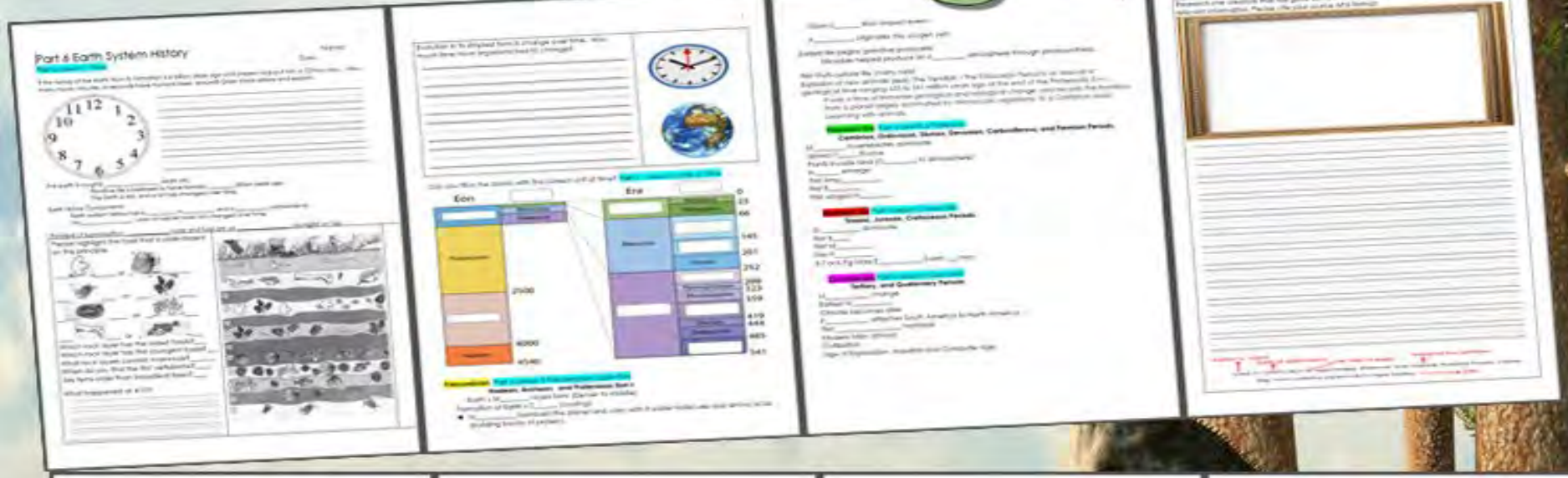
8 Lessons and Project

Interactive Slideshows





Follow Along Bundle

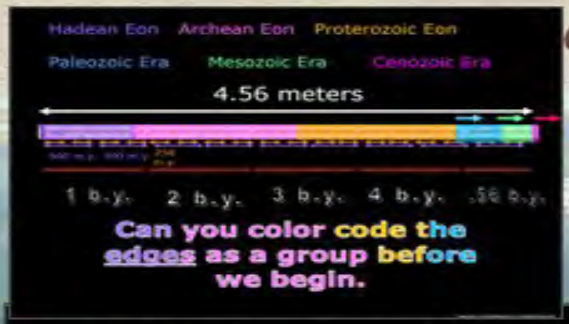


+ Build a timeline Project

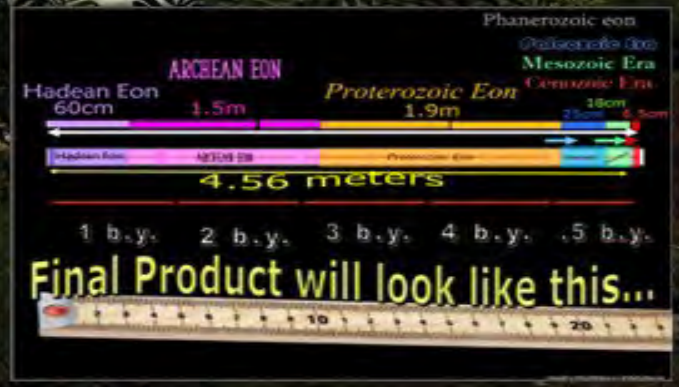
Project, Assessments, Games And more all built-in

- Video Link! Animation of Paleozoic Sea Life at Field Museum in Chicago. (Cambrian)
  - http://www.youtube.com/watch?v=LbhGWDjOkP0

- Meteorites bombard the planet.
  - The earth increases in size.



- Earth's Timeline is divided into various units of time.
  - Eon (Longest amount of time)
  - Hadean, Archean, Proterozoic



Part 6: Earth System History: 8 Lessons of 50 Minutes and 8 Page Follow Along Work Bundle, Earth Broken down into a 12 Hour Day and emergence of Humans, Age of the Earth, Uniformitarianism, Review of the Five Fingers of Evolution, Principle of Superposition, Card Activity with the Principle of Superposition, Earth System History, Units of Time, Understanding the Units of Time, Fragility of the System, Mass Extinction Events, Build a timeline project where students work in groups and create a 4.65 meter long timeline of Earth System History, Protoplanet, Precambrian Supereon, Hadean Eon, Crust Formation, Formation of the Moon, Importance of the Moon Formation, Earth's EM Field, Major Events of the Hadean, Events of the Archean, First Prokaryotic Cells, Tectonic Activity, Stromatolites, Proterozoic Eon, Cyanobacteria, Oxygen Catastrophe, Banded Iron Formations, Snowball Earth, Multi-cellular Life, Major Events of the Proterozoic Eon, Paleozoic Era, Major Events of the Cambrian, Ediacaran fauna, Burgess Shale, Make Burgess Shale Activity, Ordovician, Tetrapod Evolution, Tiktaalik, Ichthyostega, Silurian, Devonian, Carboniferous, Fossil Fuels, and Permian Periods, End Permian Mass Extinction, Major Events of the Mesozoic Era, Pangea, Bird Hipped and Lizard Hipped Dinosaurs, Dinosaur Challenge Activity, How Modern Birds and Dinosaurs are Similar, K-Pg Mass Extinction Event, Cenozoic Era, Paleogene, and Neogene Periods, Epochs and Ages, Presentation of Student Timelines, Box Game Review, Crossword Puzzle, End Unit Assessment where Students Use their Timeline, Answers to Assessment so Students Can Self Assess.

Part 6: Earth System History

Part 6 Lesson 1 Age of the Earth

Part 6 Lesson 2 Units of Time

Part 6 Lesson 3 Precambrian Super Eon

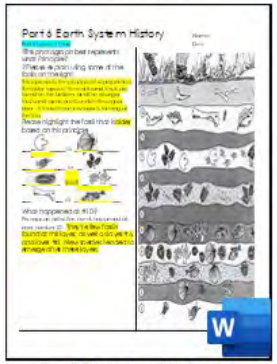
Part 6 Lesson 4 Paleozoic

Part 6 Lesson 5 Mesozoic

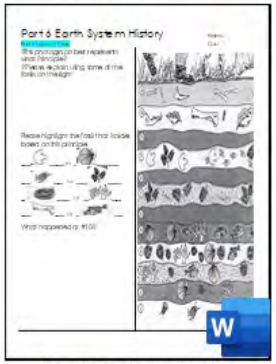
Part 6 Lesson 6 Cenozoic

Part 6 Lesson 7 Review Game

Part 6 Lesson 8 Review Game Answers



Part 6 Work Bundle Answers



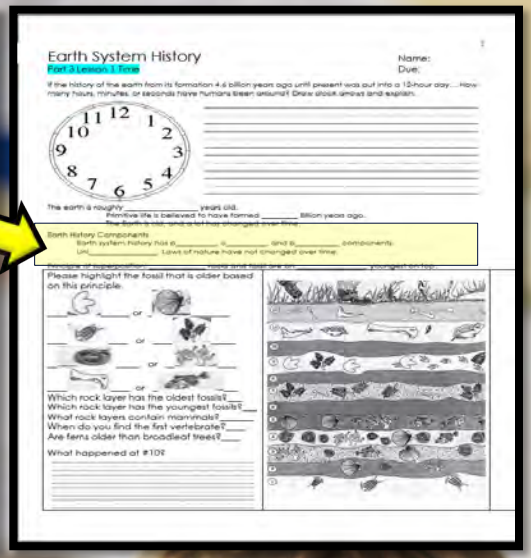
Part 6 Work Bundle Digital

SlideSpark Science

MIDDLE-LEVEL EDUCATIONAL RESOURCES

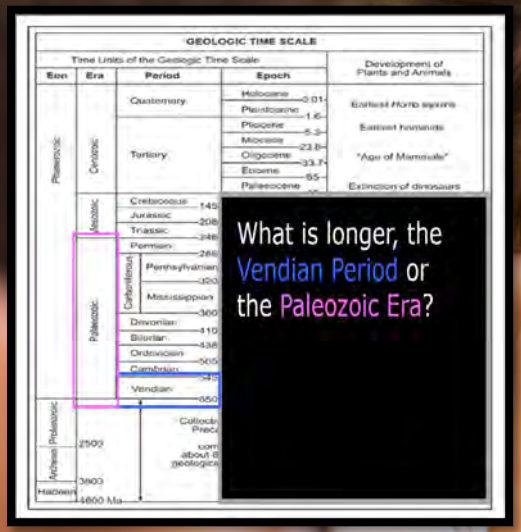
Interactive slideshows provide the roadmap for an amazing learning experience for students in grades 5-9. A Detailed set of work bundles chronologically follow the digital learning, providing a clear and intuitive roadmap to understanding. As the teacher or student advances through a slideshow, exciting hands-on activities, fantastic visuals, fill-in notes, review opportunities, video links, assessments, and much more are strategically placed throughout. Interactive learning unfolds step by step and supported by the work bundle to reach all types of learners. Everything you need to run to an amazing learning experience is provided in this one-of-a-kind science curriculum.

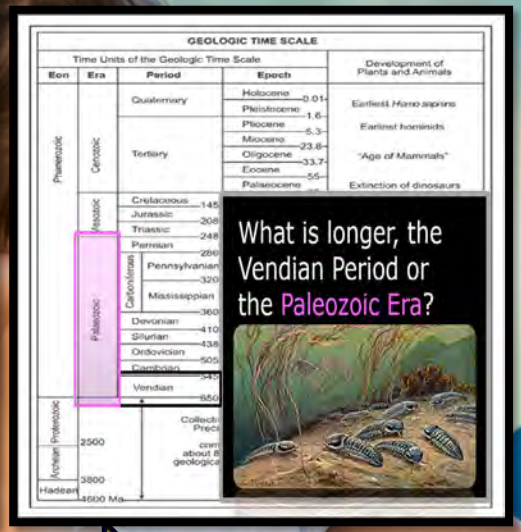
Each unit in the curriculum is designed to help teachers deliver the best possible learning experience for their students. Our interactive science slideshows are filled with questions and answers, important fill-in notes, hands-on activities, projects, games, built-in quizzes, and end of the unit assessment pieces. Students follow along with a work bundle that documents the entire learning experience for a fantastic review and assessment piece.

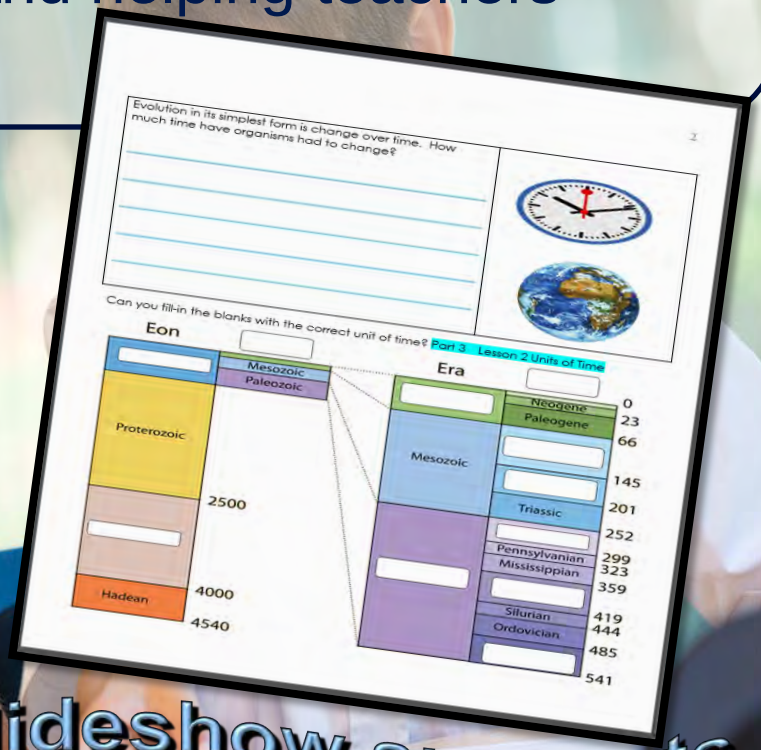


Red Slide Notes: Help students record important information in a fun and easy-to-understand way. Designed red-colored slides contain a few pieces of crucial information that students must record into their work bundle to complete the notes. Students will use these important notes throughout the work bundle.

The set-up of the slideshows are designed to make learning fun and interactive for students. With a mix of questions and answers, teachers can use these slides to get their students thinking and actively participating in their education. Plus, the answers are always revealed on the next slide, providing students with immediate feedback and helping teachers assess their understanding.





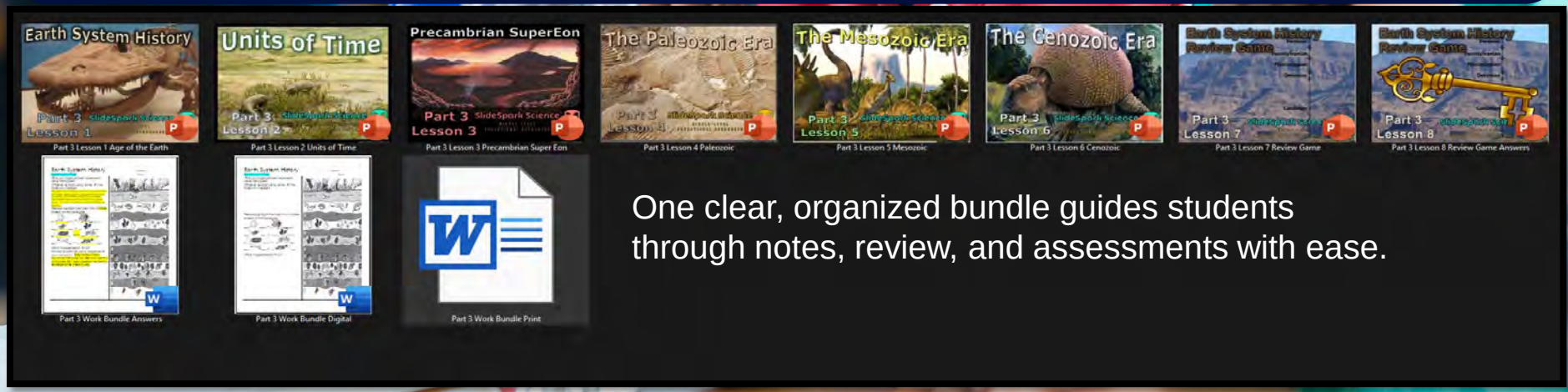


Next Slide

Slideshow supports Work Bundle

Lesson Planning

Daily lessons space exciting hands-on activities, red slide notes, video and academic links, projects, simulations, readings, built-in quizzes, and review opportunities throughout the slideshows. A typical day may have many different learning styles being targeted. Daily lesson planning becomes advancing through the slideshow roadmap the night before. Each lesson is roughly 50 minutes, but sometimes things can speed up or slow down. The best strategy is just to go at your classes own pace. The work bundle chronologically follows the interactive slideshow and you can always spend extra time assessing the quality of the writing within. If you don't quite finish a lesson, you can always pick it up the next day where you left off. The only real trick in timing is not starting a larger activity if you don't have the available time to complete. The slideshows have been designed to be a low stress, go at your classes own pace experience. Most activities are designed to be cost effective, using general materials that can be gathered from your local stores.



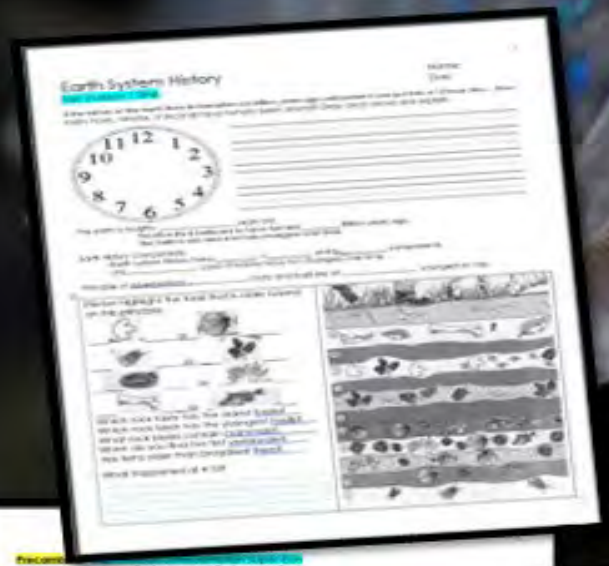
One clear, organized bundle guides students through notes, review, and assessments with ease.

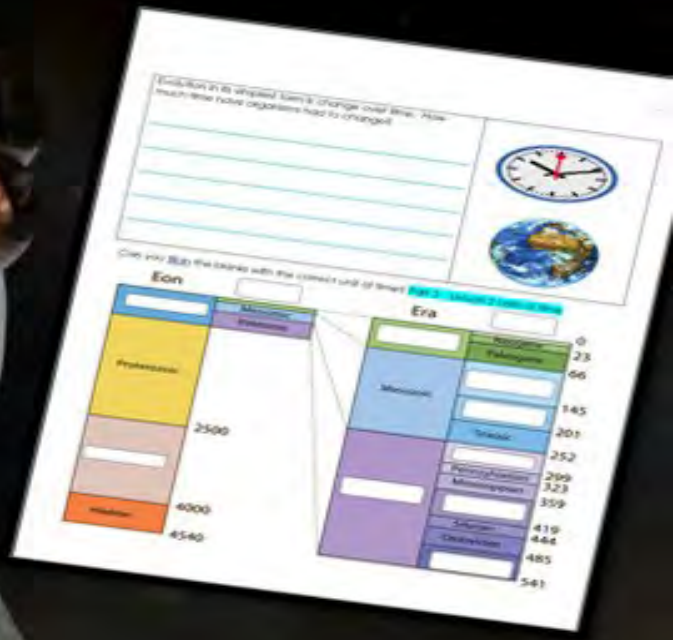
Follow Along Work Bundle

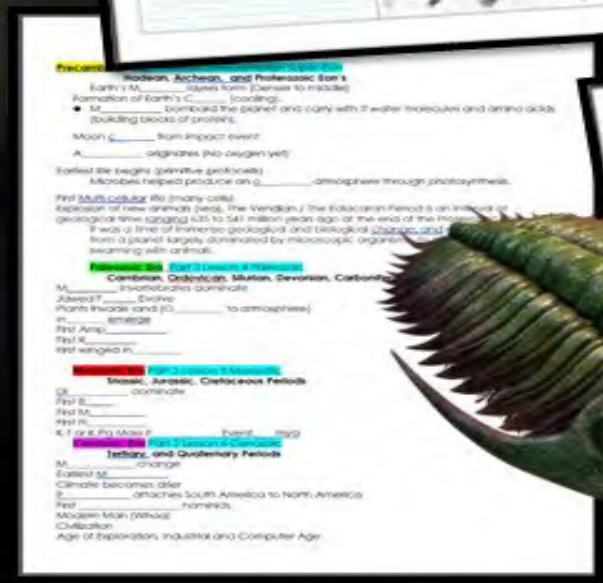
Each science unit comes with several work bundles. The bundles should be printed before the unit begins and distributed to the students on the first day of the unit. The work bundles will be due shortly after the completion of the unit. The work bundle will become a resource for the review games, crossword puzzles, and will be collected for assessment. The work bundle follows the entire learning experience and will be used every day. They are chronological to the lessons and provide places to record fill-in notes, answer questions, collect data, graph and much more. An answer version is provided that can that be distributed to your support professionals. A digital version of the work bundle and some writable .pdf versions are provided if you want to go paperless. These work bundles are perfect for students looking for an easy and organized way to track their progress and stay on top of their studies.

Earth System History

Work Bundle







5

Please use the line below of the history of the earth from 4.6 billion years ago until present to answer some questions.

Start
Formation of the Earth
Moons Forms
Hadean Eon
Crust Cooling
EM Field
Prokaryotic Cells
Continents
Proto Cells
Oceans
Archean Eon
Cyanobacteria
Snowball earth
Atmosphere Changes (Oxygen Events)
Proterozoic
Banded Iron Formations
Civilization Computers
End
Eukaryotic Cells
OZONE stabilizes
Multicellular Life
Mesozoic
Today
K-T
Mammals
Flowering Plants
Dinosaurs
Age of Marine Invertebrates
Carbon Swamps
Last Ice Age
Modern Human Hominids
Age of Fish
Insects
Paleozoic
Cenozoic

6

Name the Eon for the next set of questions.

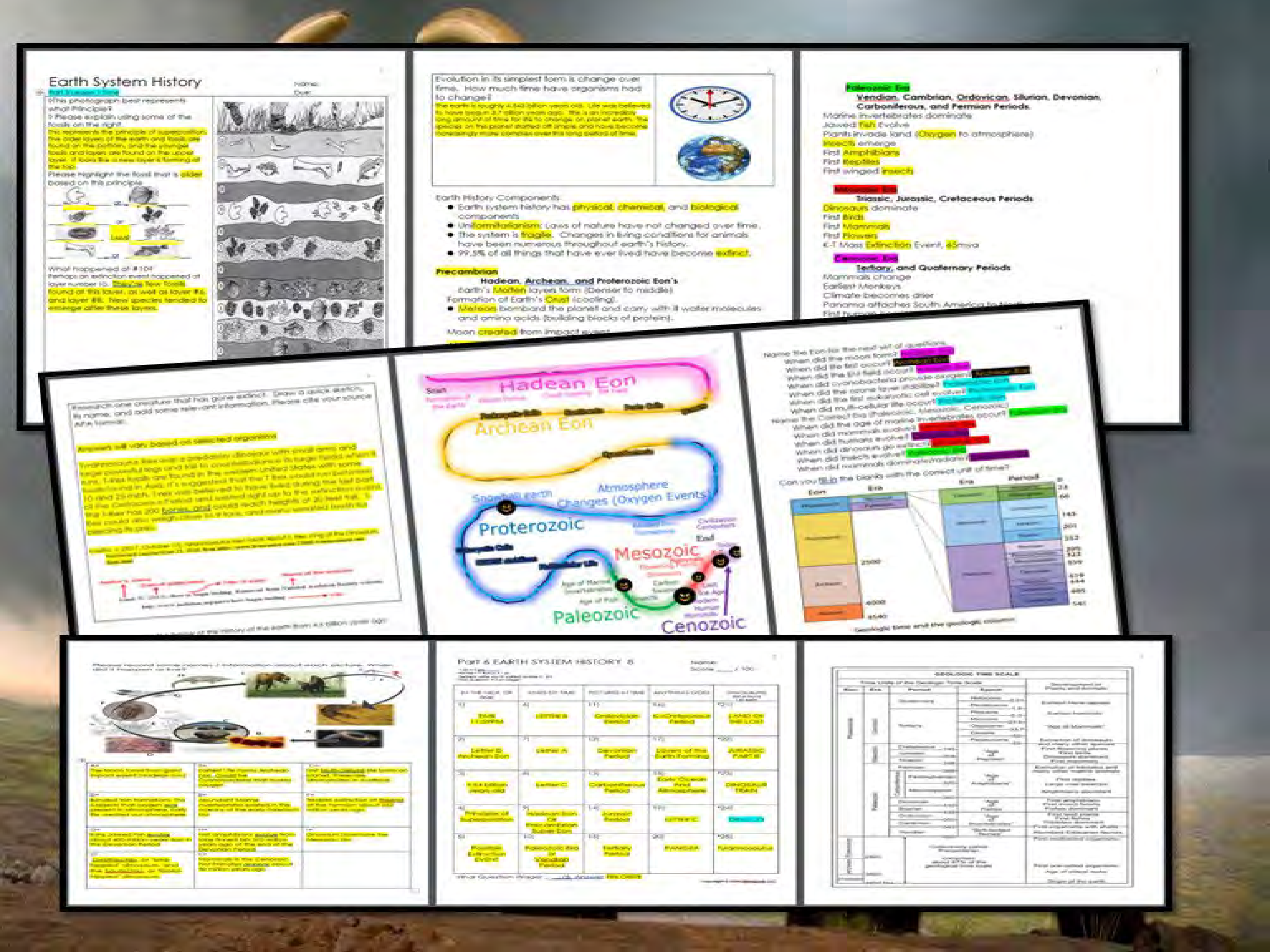
When did the moon form?
When did life first occur?
When did the EM field occur?
When did cyanobacteria provide oxygen?
When did the ozone layer stabilize?
When did the first eukaryotic cell evolve?
When did multi-cellular life occur?

Name the Correct Era (Paleozoic, Mesozoic, Cenozoic)

When did the age of marine invertebrates occur?
When did mammals evolve?
When did humans evolve?
When did dinosaurs go extinct?
When did insects evolve?
When did mammals dominate/radiate?

Please record some names / information about each picture. When did it happen or live?

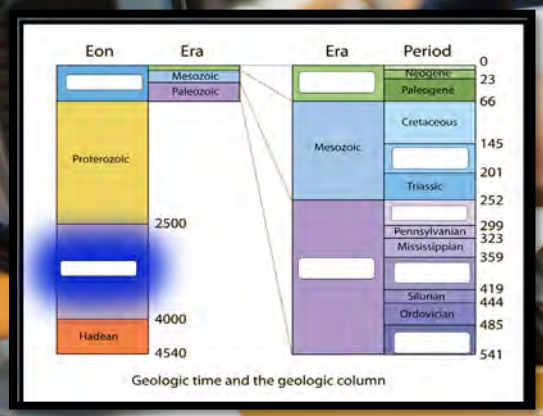

Part 3 EARTH SYSTEM HISTORY
Name:
Score ____ / 100
1-20 = 5 pts Part 4 Lesson 7
*20-*25 * = Bonus + 1 pt.
(Secretly write owl in correct space +1 pt)
Final Question = 5 pt wager
IN THE NICK OF TIME
UNITS OF TIME
PICTURES IN TIME
ANYTHING GOES
DINOSAURS Bonus round 1 pt each
1)
6)
11)
16)
*21)
2)
7)
12)
17)
*22)
3)
8)
13)
18)
*23)
4)
9)
14)
19)
*24)
5)
10)
15)
20)
*25)
Final Question Wager ____/5 Answer
GEOLOGIC TIME SCALE
Time Units of the Geologic Time Scale
Eon
Era
Period
Epoch
Development of Plants and Animals
Phanerozoic
Cenozoic
Quaternary
Holocene
0.01
Pleistocene
1.6
Earliest Homo sapiens
Tertiary
Pliocene
5.3
Miocene
23.8
Oligocene
33.7
Eocene
55
Earliest hominids
"Age of Mammals"
Paleocene
65
Extinction of dinosaurs and many other species
Mesozoic
Cretaceous
145
"Age of Reptiles"
First flowering plants
First birds
Dinosaurs dominant
First mammals
Jurassic
Extinction of trilobites and many other marine animals
First reptiles
Large coal swamps
Amphibians abundant
First amphibians
First insect fossils
Fishes dominant
First land plants
First fishes
Trilobites dominant
Invertebrates with shells
Ediacaran faunas
8 Pages

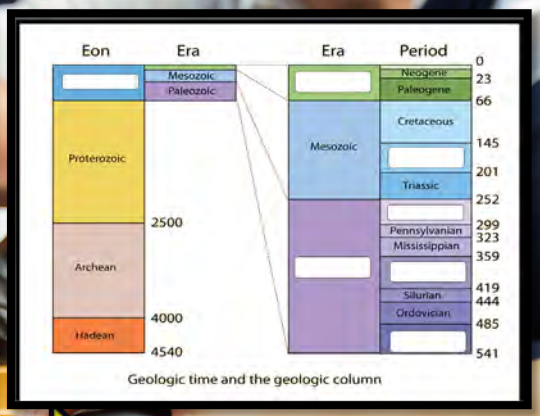


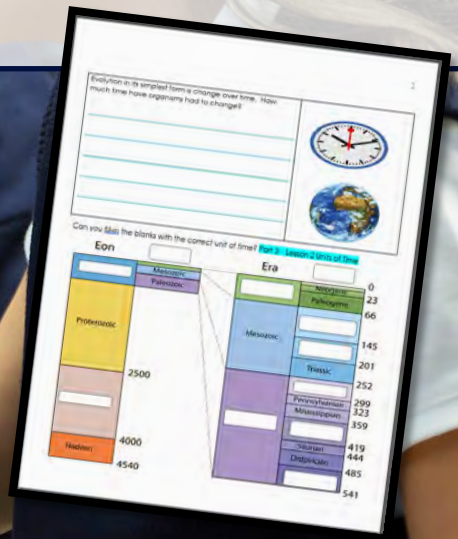
Earth System History
Evolution in its simplest form is change over time. How much time have organisms had to change?
Earth History Components
Earth system history has physical, chemical, and biological components
Uniformitarianism: Laws of nature have not changed over time.
The system is fragile. Changes in living conditions for animals have been numerous throughout earth's history.
99.5% of all things that have ever lived have become extinct.
Precambrian
Hadean, Archean, and Proterozoic Eon's
Earth's Molten layers form (Denser to middle)
Formation of Earth's Crust (cooling).
Meteors bombard the planet and carry with it water molecules and amino acids (building blocks of protein).
Moon created from impact event
Paleozoic Era
Vendian, Cambrian, Ordovician, Silurian, Devonian, Carboniferous, and Permian Periods.
Marine invertebrates dominate
Jawed Fish Evolve
Plants invade land (Oxygen to atmosphere)
Insects emerge
First Amphibians
First Reptiles
First winged insects
Mesozoic Era
Triassic, Jurassic, Cretaceous Periods
Dinosaurs dominate
First Birds
First Mammals
First Flowers
K-T Mass Extinction Event, 65mya
Cenozoic Era
Tertiary, and Quaternary Periods
Mammals change
Earliest Monkeys
Climate becomes drier
Hadean Eon
Archean Eon
Proterozoic
Atmosphere Changes (Oxygen Events)
Snowball earth
Mesozoic
Paleozoic
Cenozoic
Part 6 EARTH SYSTEM HISTORY 8
GEOLOGIC TIME SCALE

Built-in Questions and Assessments

Many slides will have relevant terms covered with a box. When advancing through the slideshow an outline around the box will glow with a bright color. The next slide will make the box disappear. These slides allow the teacher to call upon students or table groups / check for understanding before advancing. The team at SlideSpark has found that using this technique helps to keep the students focused. Constantly recalling and reviewing information learned is necessary when moving through a large unit. The slideshows don't just give everything away for free. Students should be able to demonstrate knowledge before moving on. Some slides have full questions instead of just covered terms. In these slides, the teacher should encourage small group work. The teacher can then call upon one or two groups to share before advancing the slide. The next slide will always reveal the correct answer.





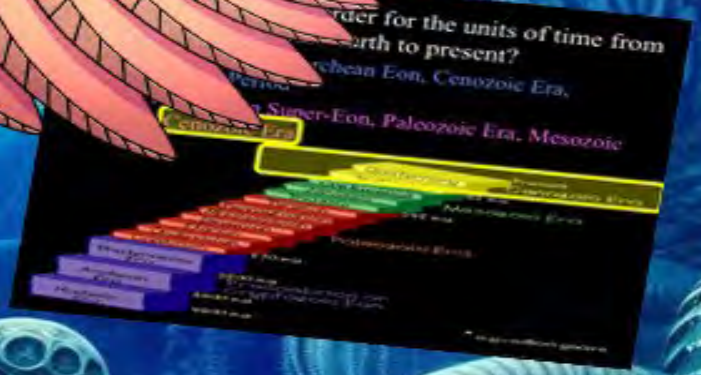


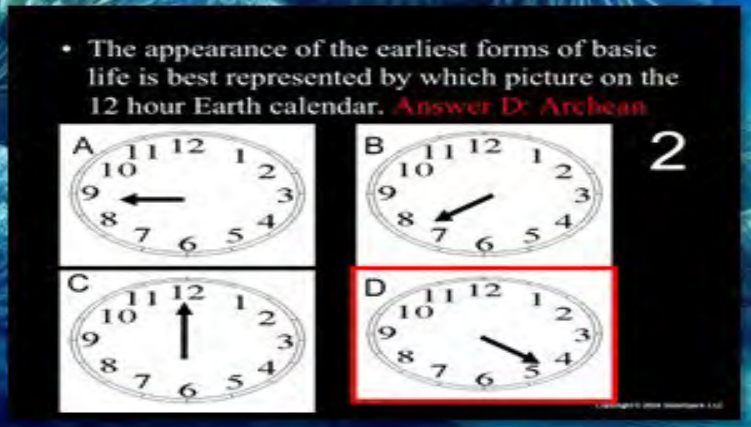
Review Game / Assessments

Each of the 11 Units concludes with a review quiz. Answers are provided in slideshow form so students can self assess. A blank template sheet is provided in the work bundle. Students can benefit from working together in small table groups with quiet communication. You can decide if you want to allow the use of work bundles or not. These are a nice review opportunity and get the students looking through their work bundles for the answers.

Earth System History

Quiz Game

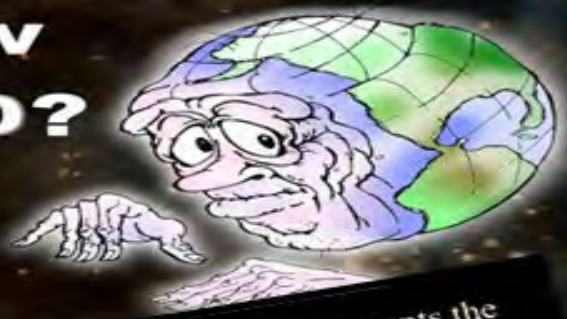




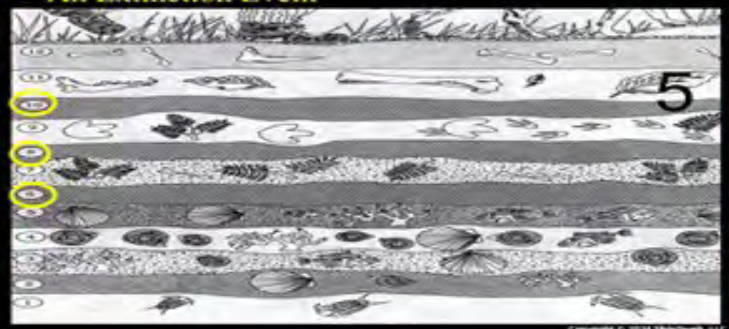
- Roughly, How old is the earth?
- 4.54 Billion Years Old

3

How OLD?



- What may have occurred at numbers 6, 8, and 10?
- An Extinction Event



- Which unit of Geologic Time best represents the formation of the moon?
  - The Precambrian Super -Eon (Hadean Eon Accepted)

9

- Mass extinction events occurred at the end of these two periods.

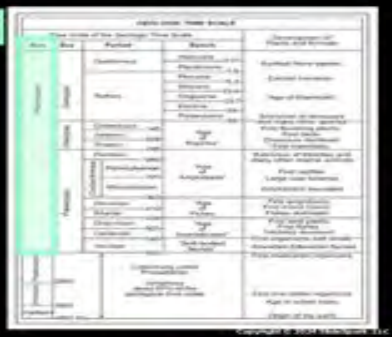
8

A.) Cambrian and Tertiary Periods
B.) Mississippian and Pennsylvanian Periods
C.) Permian and Cretaceous Periods
D.) Vendian and Silurian Periods
E.) No mass extinction events have ever occurred.

- This picture best represents which Era on the Geologic Time Scale?
- Paleozoic Era (Early Vendian / Cambrian Period)

- Which of the following units of time is the longest?

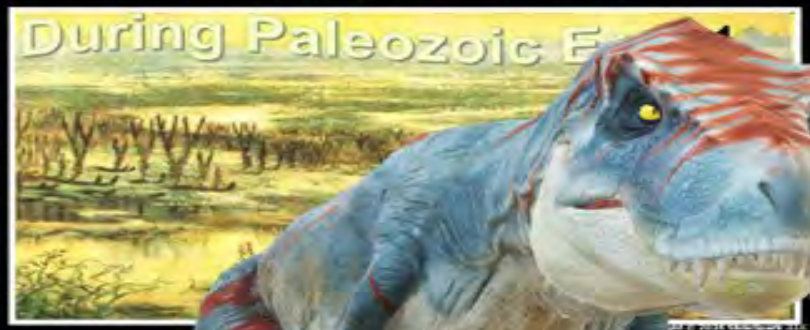
A.) Phanerzoic Eon
B.) Mesozoic Era
C.) Jurassic Period
D.) Pliocene Epoch
E.) Science Class



- This picture best represents which Period on the Geologic Time Scale?
  - Note: Emergence of Birds Answer: Jurassic Period

- Most of the coal and other forms of fossil fuel are the carbon rich remains of plants and animals that lived during this period?
- Carboniferous Period

- This picture best represents which Period on the Geologic Time Scale?
- Ordovician Period (First Land Plants)



- This picture best represents which Period on the Geologic Time Scale?
- Tertiary Period (Quaternary Accepted as well)

- This picture best represents which Period on the Geologic Time Scale?
- Devonian or Early Carboniferous Period

- What supercontinent that is shown below began to break apart during the early Jurassic Period?

PANGEA

20

- What is this an animation of? When did it happen?
- Layers of the Earth Forming (Hadean Eon)

17

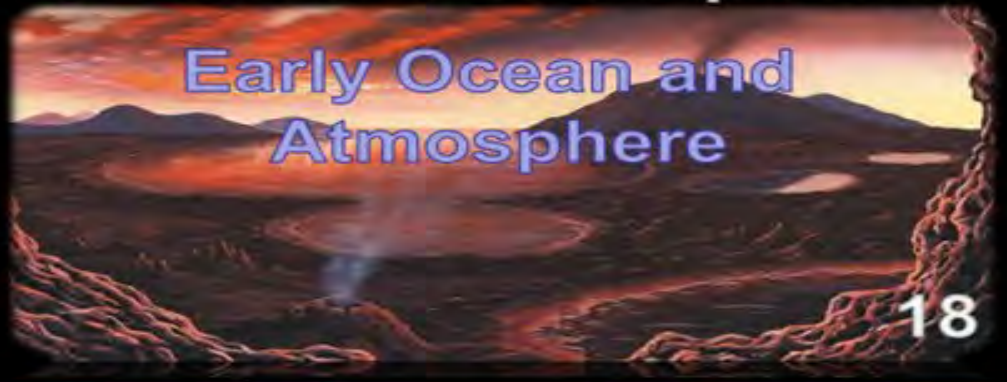
- All of the following are similarities between birds and bird-like dinosaurs (Theropods) except…
  - A.) Three toed foot.
  - B.) Walk on two legs.
  - C.) Dense heavy bones.
  - D.) Wishbone.
  - E.) Backward pointing pelvis.

19

- What is the K and the Pg in the K-pg (Also known as the K-T) Mass Extinction Event that wiped out the dinosaurs and allowed the age of the mammals to begin.

16

These were created from outgassing from the interior of the planet?



18

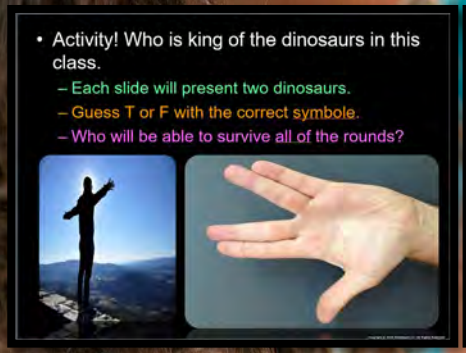
Activities / Labs

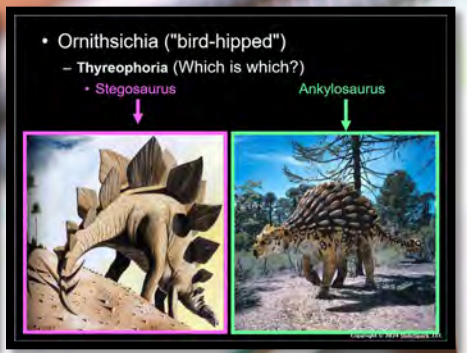
Our science activities are designed to help students explore and understand complex scientific concepts in an engaging and interactive way. Each science unit includes several hands-on activities that encourage students to collect data and think critically about the world around them. Our easy-to-follow slideshow provides detailed visuals, simple materials, and clear directions, making it easy for both students and teachers to navigate the activities.

Earth Timeline Activity

Built-in Assessment

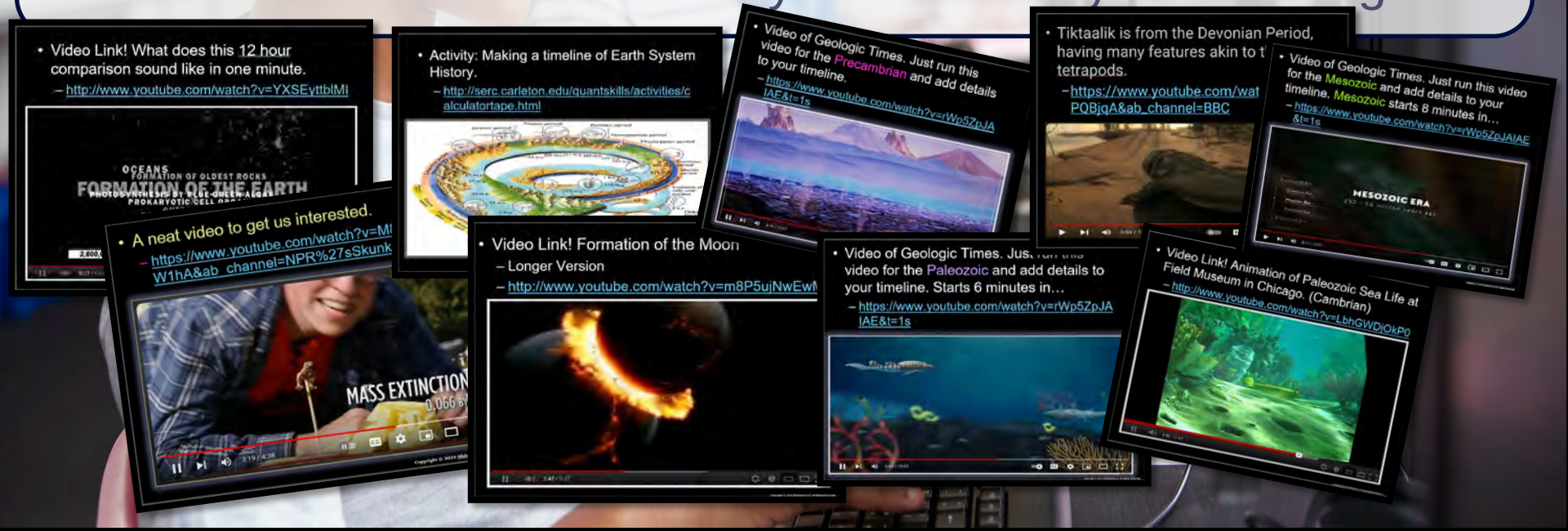
This unit includes built-in assessments completed in the work bundle. With each question revealed, teachers can call on students or groups to respond. To add energy, students stand and make a quick symbol or gesture before the answer is shown—getting them moving while keeping review fun and interactive.





Built-in Video Links

Our science education program is designed with the modern, multimedia learner in mind, and our video / academic links are a perfect complement to our educational materials. These short clips are embedded into the slideshow at just the right places for a fantastic review. Whether you're studying biology, chemistry or physics, our video links are an excellent way to reinforce your learning.



The Owl - Each Part of the slideshow has a small clipart Owl hiding somewhere in a slide. The owl is incredibly small and blended into just the right slide. If a student spots the “Owl” they can raise their hand high into the air. When you call upon the student they can say “Owl" and be the student who spotted the Owl. Each PowerPoint Review game also has an owl hiding in it worth one point. Remind the students that they secretly write the word "owl" rather than yell it out during the review games. The Owl search is not included in every lesson. A slide at the beginning of the lesson will alert the students that today is an “Owl’ day. Everything arrives editable so delete if you wish. You will find that some students will become the expert owl hunters in the group.

Google Classroom Compatible

Our digital learning programs are designed for students to learn science in a flexible and engaging environment. Our Google Classroom-compatible units provide a seamless learning experience whether your students are in the classroom or learning from home. Our step-by-step slideshows and student work bundles ensure that students can complete their work independently. The PowerPoint Slideshows and step-by-step work bundles can easily be loaded to your Google Drive and posted in your Google Classroom. These are great for daily lessons, students who need additional time, and for a student who was absent and looking to catch up in their work bundle.

Part 3 Lesson 1 Age of the E...

Google Slides

Part 3 Lesson 2 Units of Time

Google Slides

Part 3 Lesson 3 Precambria...

Google Slides

Part 3 Lesson 4 Paleozoic

Google Slides

Part 3 Lesson 5 Mesozoic

Google Slides

Part 3 Lesson 5 Mesozoic

Google Slides

Part 3 Lesson 6 Cenozoic

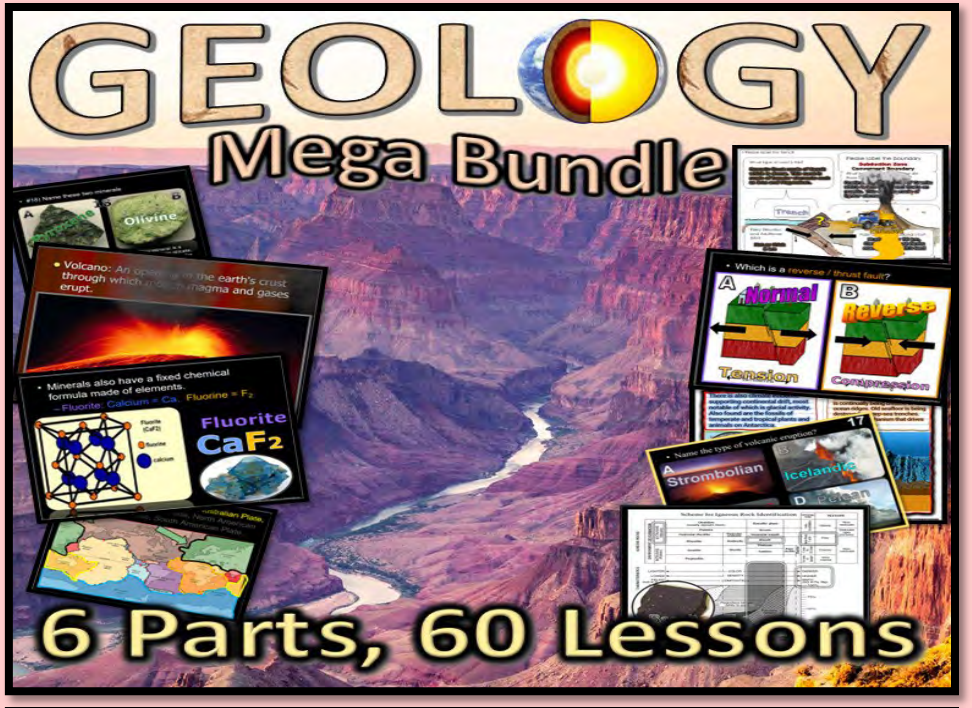
Google Slides

Part 3 Lesson 7 Review Game

Google Slides

Part 3 Work Bundle Digital

Google Docs


GEOLOGY
Mega Bundle
Olivine
Fluorite
CaF2
Normal
Reverse
Tension
Compression
Strombolian
Icelandic
6 Parts, 60 Lessons


Hundreds of Amazing and Interactive Slides
Fluorite
More Rigid
More Flowing
Semi Rigid
Erosion
Islands get smaller
Older
Which is a normal fault?
Normal
Tension


Follow Along Bundles
6 Bundles, 100 Pages


Assessments, Activities, Keys, Games and More
Mt. Vesuvius
Pompeii
Pyroclastic Flow
The Rock Cycle
Subduction Zone
Continental Crust
Ocean Crust
Trench
Lithosphere
Fault
Fold
Shale

Geology Topics Unit

Geology Unit

60 Lessons, (6^{th}-8^{th} Medium Difficulty) Part 1 Dynamic Earth, is 11 Lessons and 15 Page Work Bundle, Part 2 Volcanoes is 8 Lessons and 18 Page Work Bundle, Part 3 Earthquakes is 11 Lessons and 16 Page Work Bundle, Part 4 is Minerals 9 Lessons and 15 Page Work Bundle, Part 6 Rocks is 10 Lessons and 14 Page Work Bundle, Part 7 Earth System History is 8 Lessons and 9 Page Work Bundle

Part 1: Geology Unit: Plate Tectonics, Uniformitarianism, Continental Drift, Evidence for Continental Drift, Pangea, Rodinia, Heat and Convection, Energy Waves, Layers of the Earth, The EM Field, Heat Transfer, Types of Crust, Plate Boundaries, Subduction Zones, Converging and Diverging Boundaries, Ring of Fire, Archipelagos, Transform Boundaries, Visual Quiz of Plate Boundaries with Answers, Box Game Review, Crossword Puzzle, End Unit Assessment with Answers so Students Can Self-Assess

Part 2: Volcanoes: Hot Spots, Volcanoes, Super volcanoes, Yellowstone, Sidoarjo "Lusi" Mud Volcano Case Study, Pompeii, Positives and Negatives of Volcanoes, Types of Volcanoes, Parts of a Volcano, Hazards of Volcanoes, Lahar, Pyroclastic Flows, VEI Index, Magma, Types of Lava, Viscosity of Lava / Silica Content, Box Game Review, Crossword Puzzle, End Unit Assessment with Answers so Students Can Self-Assess

Part 3: Earthquakes: Deformation, Types of Deformation, Faults, Folds, Types of Stress on Rock, Types of Faults, Lateral Faults, Types of Folds, Anticlines, Synclines, Energy Waves, Mechanical Waves, Body Waves, Surface Waves, Earthquakes, Moment Magnitude Scale, Richter Scale, Earthquake Case Study, Mercalli Scale, Epicenter, Finding an Epicenter, Earthquake Design, Design Challenge with a shake table, Tsunami, Tsunami Case Studies, Causes of Tsunami, Tsunami Warning Signs, Box Game Review, Crossword Puzzle, End Unti Assessment with Answers so Students Can Self-Assess

Part 4: Minerals: Minerals, Crystals, Uses of Minerals, Types of Crystals, Atomic Bonding, Physical Properties of Minerals, Primary Minerals, Mineral Properties Lab, Common Mineral Identification, Box Game Review, Crossword Puzzle, End Unit Assessment with Answers so Students Can Self-Assess

Part 5: Rocks and the Rock Cycle: Rocks, Scheme for Igneous Rock Identification, Intrusive, Extrusive Igneous Rocks, Classification for Igneous Rocks, Rocks Flow Chart, Common Igneous Rocks, Common Sedimentary Rocks, Common Metamorphic Rocks, Scheme for Metamorphic Rocks, Regional and Contact Metamorphism, Rock Identification Quiz, Rock Auction Project, Box Game Review, Crossword Puzzle, End Unti Assessment with Answers so Students Can Self-Assess

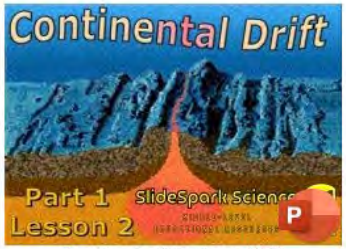
Part 6: Earth System History: 8 Lessons of 50 Minutes and 8 Page Follow Along Work Bundle, Earth Broken down into a 12 Hour Day and emergence of Humans, Age of the Earth, Uniformitarianism, Review of the Five Fingers of Evolution, Principle of Superposition, Card Activity with the Principle of Superposition, Earth System History, Units of Time, Understanding the Units of Time, Fragility of the System, Mass Extinction Events, Build a timeline project where students work in groups and create a 4.65 meter long timeline of Earth System History, Protoplanet, Precambrian Supereon, Hadean Eon, Crust Formation, Formation of the Moon, Importance of the Moon Formation, Earth's EM Field, Major Events of the Hadean, Events of the Archean, First Prokaryotic Cells, Tectonic Activity, Stromatolites, Proterozoic Eon, Cyanobacteria, Oxygen Catastrophe, Banded Iron Formations, Snowball Earth, Multi-cellular Life, Major Events of the Proterozoic Eon, Paleozoic Era, Major Events of the Cambrian, Ediacaran fauna, Burgess Shale, Make Burgess Shale Activity, Ordovician, Tetrapod Evolution, Tiktaalik, Ichthyostega, Silurian, Devonian, Carboniferous, Fossil Fuels, and Permian Periods, End Permian Mass Extinction, Major Events of the Mesozoic Era, Pangea, Bird Hipped and Lizard Hipped Dinosaurs, Dinosaur Challenge Activity, How Modern Birds and Dinosaurs are Similar, K-Pg Mass Extinction Event, Cenozoic Era, Paleogene, and Neogene Periods, Epochs and Ages, Presentation of Student Timelines, Box Game Review, Crossword Puzzle, End Unit Assessment where Students Use their Timeline, Answers to Assessment so Students Can Self Assess.

Geology Topics Unit Part 1: Plate Tectonics, Uniformitarianism, Continental Drift, Evidence for Continental Drift, Pangea, Rodinia, Heat and Convection, Energy Waves, Layers of the Earth, The EM Field, Heat Transfer, Types of Crust, Plate Boundaries, Subduction Zones, Converging and Diverging Boundaries, Ring of Fire, Archipelagos, Transform Boundaries,

Part 1: Geology Unit


Additional and Printables

Part 1 Lesson 1 Plate Tectonics



Part 1 Lesson 2 Continental Drift

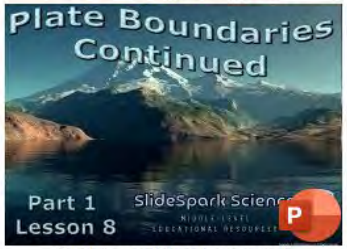
Part 1 Lesson 3 Layers of the Earth I

Part 1 Lesson 4 EM Layers cont.

Part 1 Lesson 5 Heat Transfer

Part 1 Lesson 6 Heat Transfer II

Part 1 Lesson 7 Plate Boundaries



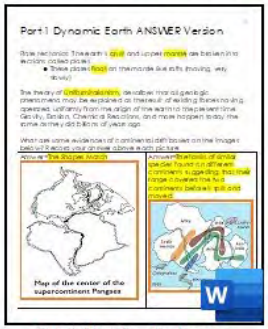
Part 1 Lesson 8 Plate Boundaries II

Part 1 Lesson 9 Plate Boundaries III

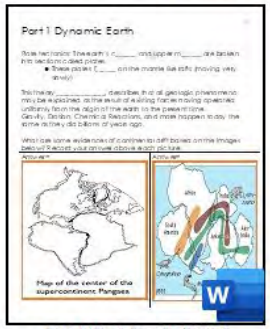
Part 1 Lesson 10 Plate Boundaries IV

Part 1 Lesson 11 Review Game

Part 1 Lesson 12 Review Game Answers



Part 1 Work Bundle Answers



Part 1 Work Bundle Digital

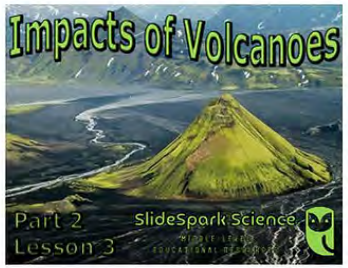
Geology Topics Unit Part 2: Hot Spots, Hawaii, Volcanoes, Supervolcano, Yellowstone, Sidoarjo “Lusi” Mud Volcano Case Study, Pompeii Case Study, Positives and Negatives of Volcanoes, Types of Volcanoes, Parts of a Volcano, Hazards of Volcanoes, Lahar, Pyroclastic Flows, VEI Index, Magma, Types of Lava, Viscosity of Lava / Silica Content

Part 2: Volcanoes

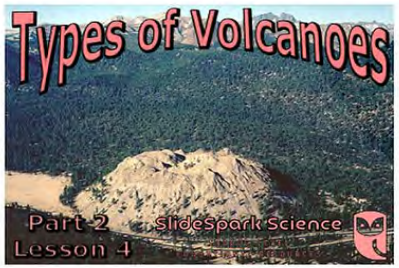
Additional and Printables

Part 2 Lesson 1 Volcanoes Hawaii Yellowstone

Part 2 Lesson 2 Eruptions Mud Read



Part 2 Lesson 3 Impacts of Volcanoes

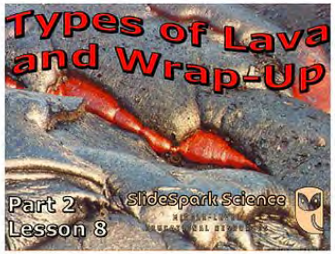


Part 2 Lesson 4 Types of Volcanoes

Part 2 Lesson 5 Hazards of Volcanoes

Part 2 Lesson 6 Magma and Lava

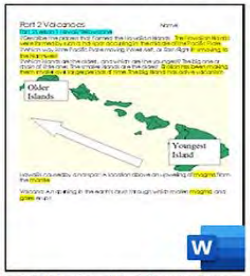
Part 2 Lesson 7 Viscosity



Part 2 Lesson 8 Types of Lava and Wrap Up

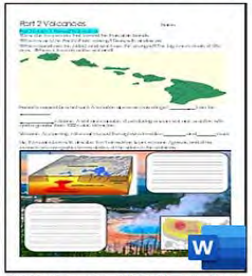
Part 2 Lesson 9 Review Game

Part 2 Lesson 10 Review Game Answers



Part 2 Volcanoes Work Bundle Answers

Part 2 Volcanoes Work Bundle Digital

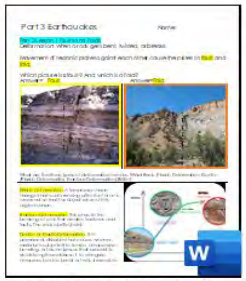


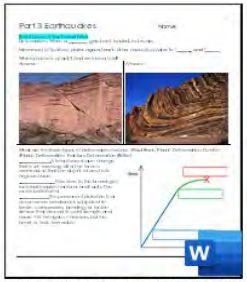
Part 2 Volcanoes Work Bundle Print

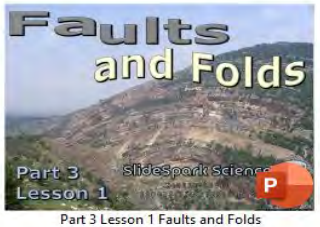
Part 3: Deformation, Types of Deformation, Faults, Folds, Types of Stress on Rock, Types of Faults, Types of Folds, Energy Waves, Mechanical Waves, Body Waves, Surface Waves, Earthquakes, Moment Magnitude Scale, Richter Scale, Earthquake Case Study, Mercalii Scale, Epicenter, Finding an Epicenter, Earthquake Design, Design Challenge with a shake table, Tsunami, Tsunami Case Studies, Causes of Tsunami, Tsunami warning signs

Part 3: Earthquakes


Additional and Printables


Part 3 Earthquakes Work Bundle Answers


Part 3 Earthquakes Work Bundle Print



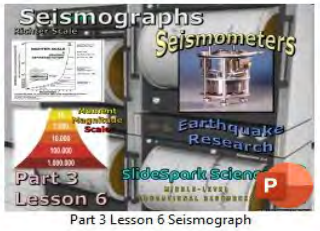
Part 3 Lesson 1 Faults and Folds

Part 3 Lesson 2 Types of Faults

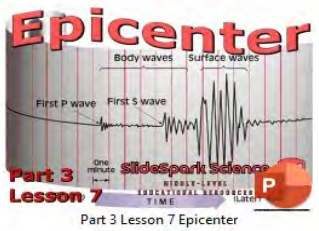
Part 3 Lesson 3 Lateral Faults

Part 3 Lesson 4 Compression Folds

Part 3 Lesson 5 Mechanical Waves



Part 3 Lesson 6 Seismograph



Part 3 Lesson 7 Epicenter

Part 3 Lesson 8 Design Challenge

Part 3 Lesson 9 Tsunami

Part 3 Lesson 10 Earthquakes Review Game

Part 3 Lesson 11 Review Game Answers

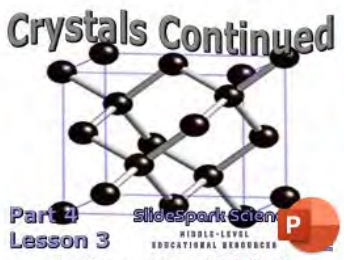
Minerals, Crystals, Uses of Minerals, Types of Crystals, Atomic Bonding, Physical Properties of Minerals, Primary Minerals, Mineral Properties Lab, Common Mineral Identification

Part 4: Minerals


Additional and Printables

Part 4 Lesson 1 Minerals

Part 4 Lesson 2 Crystals



Part 4 Lesson 3 Crystal Quiz Bonds

Part 4 Lesson 4 Primary Minerals

Part 4 Lesson 5 Mineral Identification

Part 4 Lesson 6 Mineral Answers Properties

Part 4 Lesson 7 Mineral Properties II

Part 4 Lesson 8 Properties Lab

Part 4 Lesson 9 Properties Quiz Wrap Up

Part 4 Lesson 10 Review Game

Part 4 Lesson 11 Answers to Review Game


Part 4 Minerals Work Bundle Digital

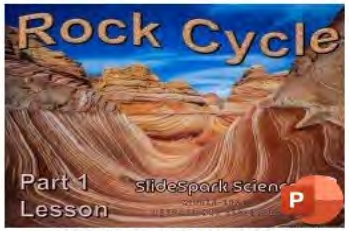

Part 4 Minerals Work Bundle Print Answers


Part 4 Minerals Work Bundle Print

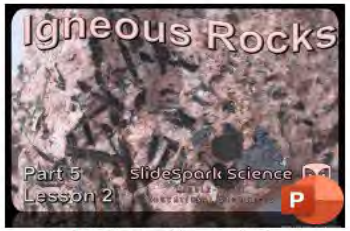
Rocks, Scheme for Igneous Rock Identification, Intrusive, Extrusive Igneous Rocks, Classification for Igneous Rocks, Rocks Flow Chart, Common Igneous Rocks, Common Sedimentary Rocks, Common Metamorphic Rocks, Scheme for Metamorphic Rocks, Regional and Contact Metamorphism, Rock Identification Quiz

Part 5: Rocks and the Rock Cycle


Additional and Printables



Part 5 Lesson 1 Start Rock Cycle

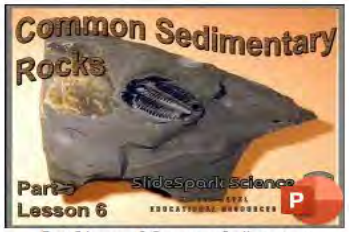


Part 5 Lesson 2 Igneous Rocks

Part 5 Lesson 3 Igneous Rocks cont

Part 5 Lesson 4 Rocks Flow Chart

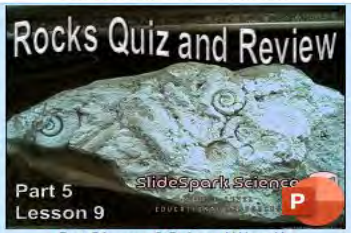
Part 5 Lesson 5 Sedimentary Rocks



Part 5 Lesson 6 Common Sedimentary

Part 5 Lesson 7 Metamorphic Rocks

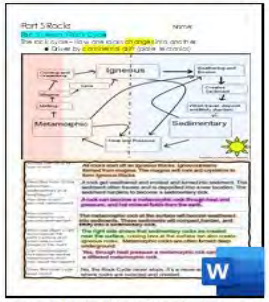
Part 5 Lesson 8 Common Metamorphic

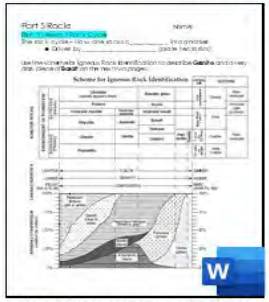


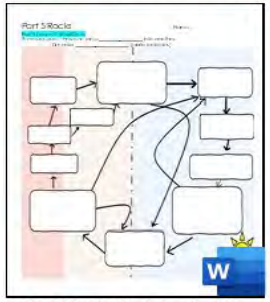
Part 5 Lesson 9 Quiz and Wrap Up

Part 5 Lesson 10 Review Game

Part 5 Lesson 11 Review Game Answers


Part 5 Rocks Work Bundle Answers


Part 5 Rocks Work Bundle Digital


Part 5 Rocks Work Bundle Print

Part 6: Earth System History: 8 Lessons of 50 Minutes and 8 Page Follow Along Work Bundle, Earth Broken down into a 12 Hour Day and emergence of Humans, Age of the Earth, Uniformitarianism, Review of the Five Fingers of Evolution, Principle of Superposition, Card Activity with the Principle of Superposition, Earth System History, Units of Time, Understanding the Units of Time, Fragility of the System, Mass Extinction Events, Build a timeline project where students work in groups and create a 4.65 meter long timeline of Earth System History, Protoplanet, Precambrian Supereon, Hadean Eon, Crust Formation, Formation of the Moon, Importance of the Moon Formation, Earth's EM Field, Major Events of the Hadean, Events of the Archean, First Prokaryotic Cells, Tectonic Activity, Stromatolites, Proterozoic Eon, Cyanobacteria, Oxygen Catastrophe, Banded Iron Formations, Snowball Earth, Multi-cellular Life, Major Events of the Proterozoic Eon, Paleozoic Era, Major Events of the Cambrian, Ediacaran fauna, Burgess Shale, Make Burgess Shale Activity, Ordovician, Tetrapod Evolution, Tiktaalik, Ichthyostega, Silurian, Devonian, Carboniferous, Fossil Fuels, and Permian Periods, End Permian Mass Extinction, Major Events of the Mesozoic Era, Pangea, Bird Hipped and Lizard Hipped Dinosaurs, Dinosaur Challenge Activity, How Modern Birds and Dinosaurs are Similar, K-Pg Mass Extinction Event, Cenozoic Era, Paleogene, and Neogene Periods, Epochs and Ages, Presentation of Student Timelines, Box Game Review, Crossword Puzzle, End Unit Assessment where Students Use their Timeline, Answers to Assessment so Students Can Self Assess.

Part 6: Earth System History

Part 6 Lesson 1 Age of the Earth

Part 6 Lesson 2 Units of Time

Part 6 Lesson 3 Precambrian Super Eon

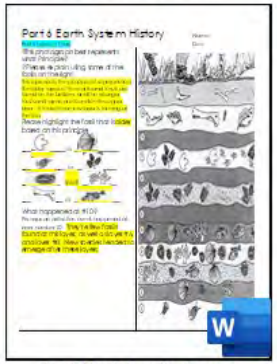
Part 6 Lesson 4 Paleozoic

Part 6 Lesson 5 Mesozoic

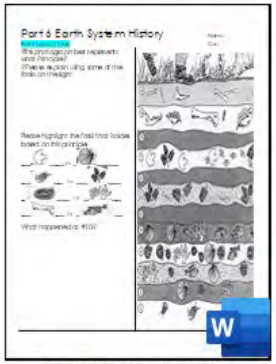
Part 6 Lesson 6 Cenozoic

Part 6 Lesson 7 Review Game

Part 6 Lesson 8 Review Game Answers



Part 6 Work Bundle Answers



Part 6 Work Bundle Digital

Curriculum Guide

Number of Lessons in each unit (50 min, daily lessons) and difficult rating scale / intended grade level.

=Easier,


= More difficult,


=Most difficult

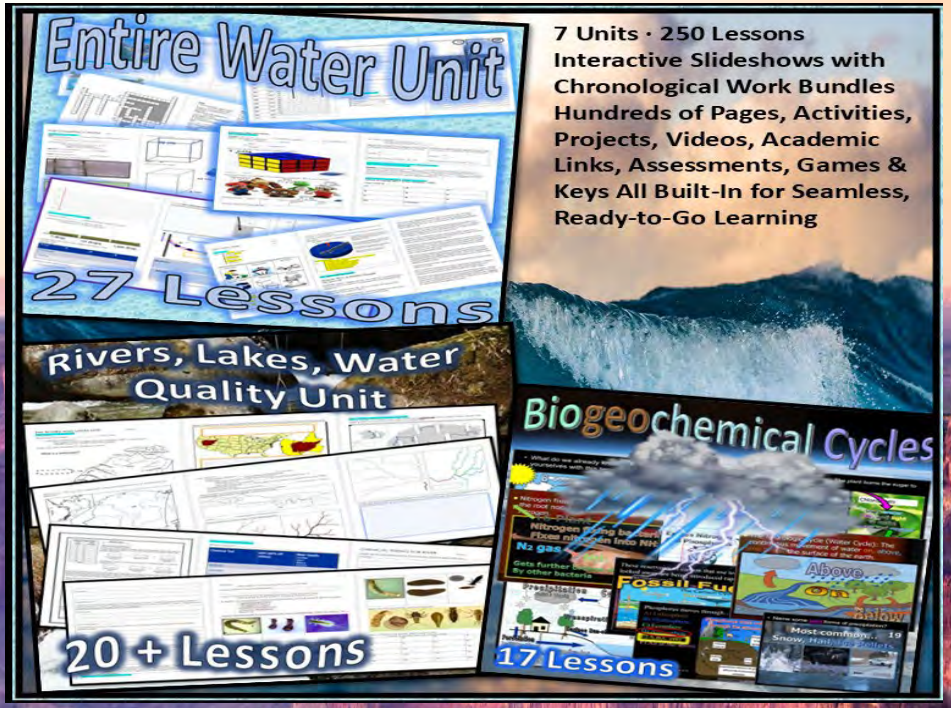
Earth Science Units	Daily Lessons	Intended Grade	
Geology Topics Unit	60 Lessons	6-8 medium difficulty	MORE DIFFICULT
Weather and Climate Unit	40 Lessons	6-8 medium difficulty	MORE DIFFICULT
Astronomy Unit	60 Lessons	6-8 medium difficulty	MORE DIFFICULT
Weathering, Soil Sciences	28 Lessons	5-7 easier	EASIEST
Rivers and Water Quality	25 Lessons	5-7 easier	EASIEST
Water Molecule Unit	20 Lessons	5-7 easier	EASIEST
Biogeochemical Cycles Unit	16 Lessons	5-7 easier	EASIEST

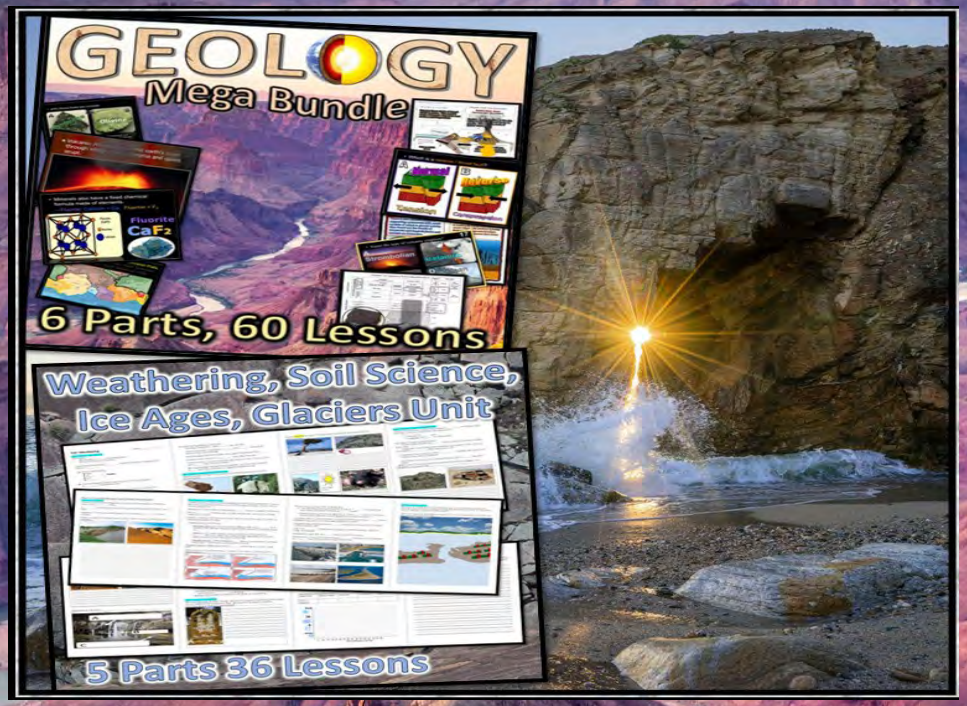
Earth Science Curriculum

Earth Science Curriculum

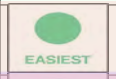
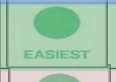
SlideSpark Science

MIDDLE-LEVEL EDUCATIONAL RESOURCES



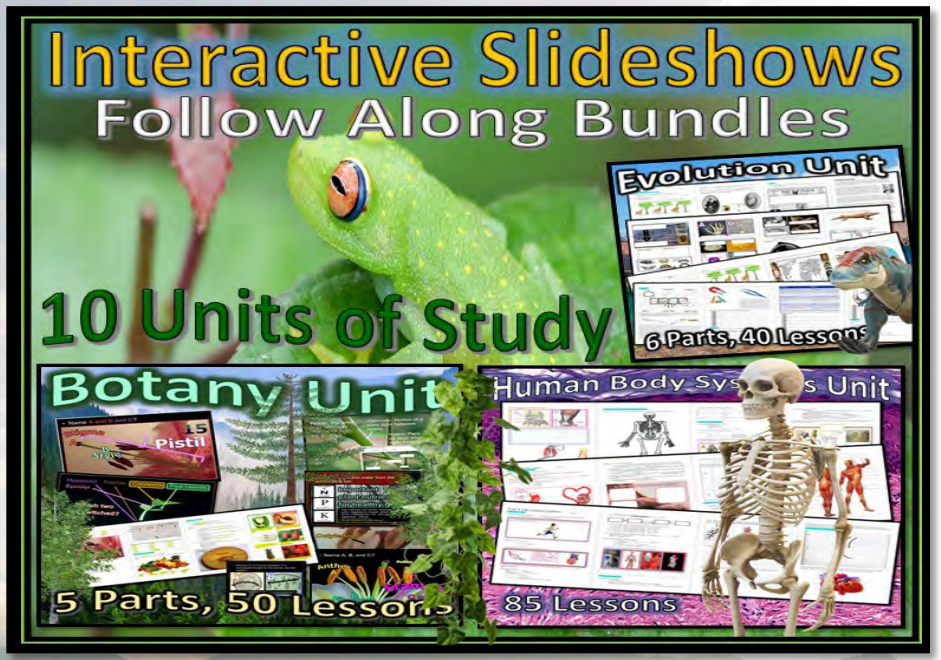


Life Science Units

	Daily Lessons	Intended Grade	
Ecology Feeding Levels Unit	13 Lessons	5-6 easier	
Ecology Interactions Unit	30 Lessons	5-6 easier	
Ecology Abiotic Factors Unit	13 Lessons	5-6 easier	
Botany Unit	50 Lessons	5-7 easier	
Evolution and Natural Selection	40 Lessons	5-7 easier	
Taxonomy and Classification	50 Lessons	6-8 medium difficulty	
Infectious Diseases Unit	30 Lessons	7-9 more difficult	
DNA and Genetics Unit	42 Lessons	8-10 most difficult	
Human Body Systems Unit	85 Lessons	6-8 medium difficulty	
Cell Biology Unit	30 Lessons	8-10 most difficult	

Life Science Curriculum


Life
Science
Curriculum
SlideSpark Science
MIDDLE-LEVEL
EDUCATIONAL RESOURCES


Interactive Slideshows
Follow Along Bundles
10 Units of Study
Evolution Unit
6 Parts, 40 Lessons
Botany Unit
5 Parts, 50 Lessons
Human Body Sys s Unit
85 Lessons


Cellular Biology Unit
Form Follows Function
30 Lessons of 50 minutes
DNA and Genetics Unit
40 Lessons
Infectious Diseases
30 Lessons


Taxonomy and Classification Unit
6 Parts
50 Lessons
Ecology Interactions Unit
30 Lessons
Ecology Feeding Le
Full Unit
Ecology Abiotic Factors Unit
27 Lessons

Physical Science	Daily Lessons	Intended Grade	
Laws of Motion and Machines Unit	33 Lessons	8-10 most difficult	
Matter Energy and the Environment	58 Lessons	7-10 medium difficulty	
Atoms and Periodic Table Unit	44 Lessons	8-10 most difficult	
Science Skills Unit	30 Lessons	5-7 medium difficulty	

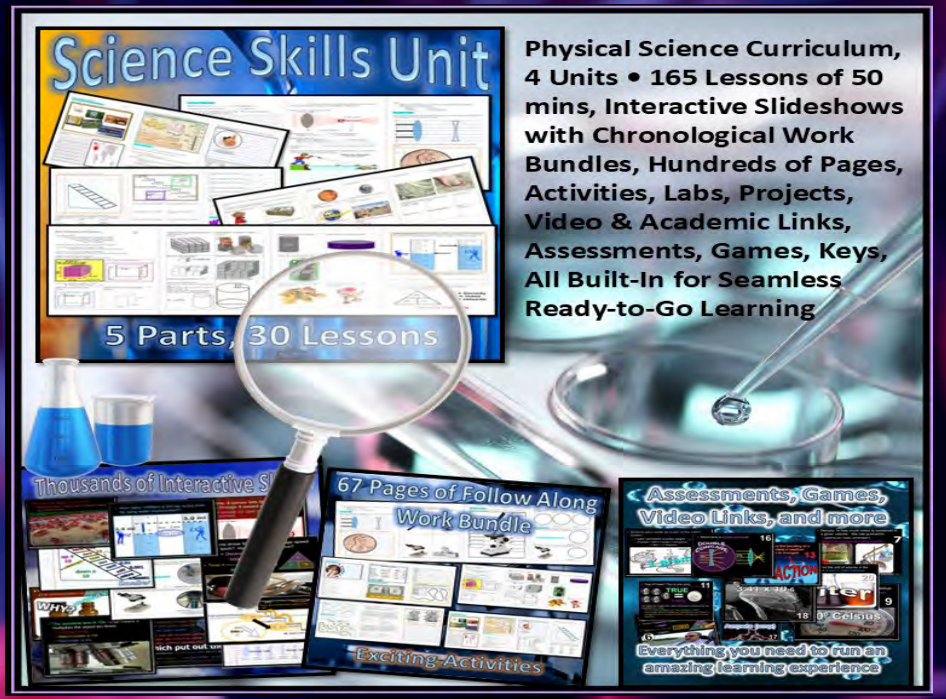
Physical Science Curriculum

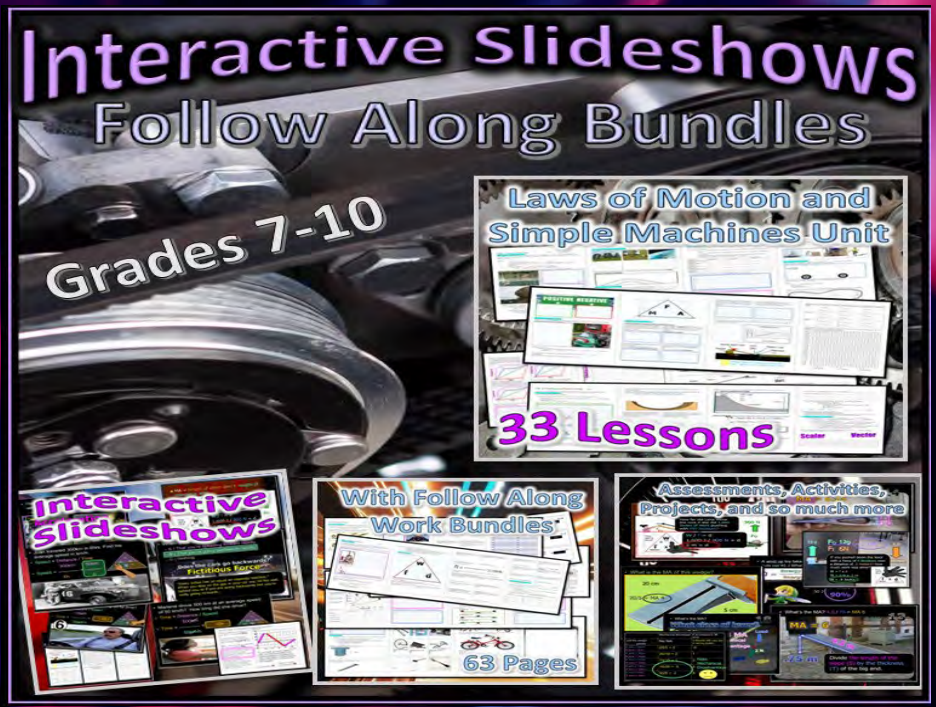
Entire SlideSpark Science Curriculum

Physical Science Curriculum

SlideSpark Science

MIDDLE-LEVEL EDUCATIONAL RESOURCES





Dear Valued Educator,

Our fully editable .pptx and .doc resources are perfect for educators looking to bring enthusiasm and creativity to their lessons. We encourage you to make changes to fit your needs and style. As science educators, we're committed to providing students with the tools they need to succeed in the classroom and beyond. Each unit in the curriculum includes a range of resources that have been developed through extensive research and use in a busy classroom. Our teaching approach is designed to make science education engaging and exciting for learners of all ages. We offer a one-of-a-kind science curriculum that will challenge, inspire, and educate students to become tomorrow's scientists and leaders. Join us today and learn more about how our program can help you achieve your classroom goals.

With appreciation,

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Thank you for your time and interest in our Science curriculum. We strive to provide students with engaging and informative lessons that will spark their curiosity and encourage scientific exploration. Should you have any questions or concerns, please do not hesitate to contact us. Thank you again for considering our curriculum, and we wish you all the best in your educational journey.

Sincerely,

Support@slidespark.net

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