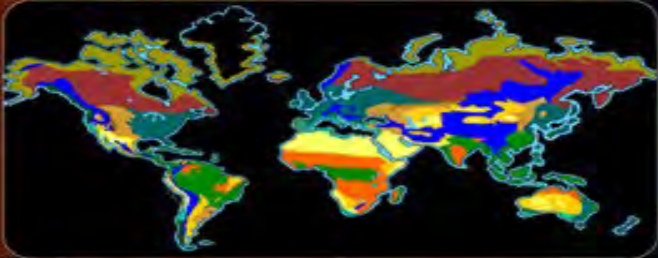


Biomes Unit

Preview is a compressed file

- A biome is a large, distinctive complex of plant communities created and maintained by climate.



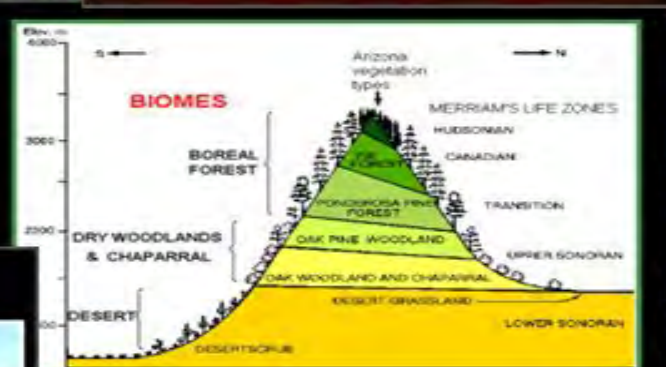
Copyright © 2010 Ryan P. Murphy



Pleasanton, Russia



- Rainfall and temperature determine the type of biome.



- Mangrove Forest Biome: A distinct saline woodland or shrubland habitat characterized by depositional coastal environments.



4 Lessons

Interactive Slideshows

- Optional! Use Google Earth and travel to each biome around the world. Try Street View.
 - Record the Country you visit next to this diagram.



average temperature in a biome, the more and larger plants that the biome can support.

— Animals will always follow.



- Mediterranean Biome:** Dry summers and rainy winters.



- Quiz Wiz! 1-10 Name that biome based on region.



- The following spreadsheet is in your work bundle.

Biome	Temp (High)	Rainfall (High)	Plants	Animals	Where on Earth
Tropical Rain Forest					
Tropical Decid. Forest					
Savanna					
Tropical Grassland					
Warm Desert					
Cold					

- Activity! Dramatic Biome Skit.**
 - Each table group needs to choose from the biomes on the next slide and present a two minute improve skit about a biome.
 - Your skit must include...
 - Rainfall
 - Temperature
 - Region on Earth
 - Plants
 - Animals



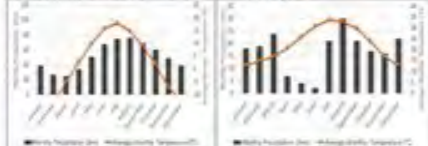
Follow Along Bundle

Part 7 Biomes

A biome is a large, distinct community of organisms.

Biomes are determined by climate and geography.

Compare the precipitation and temperature data below for two biomes. Write the name of the biome that best matches the data in the space provided.



Write the name of the biome that best matches the data in the space provided.

Left Graph: _____

Right Graph: _____

Biome Characteristics

Write the name of the biome that best matches the data in the space provided.

Write the name of the biome that best matches the data in the space provided.

Write the name of the biome that best matches the data in the space provided.

Write the name of the biome that best matches the data in the space provided.

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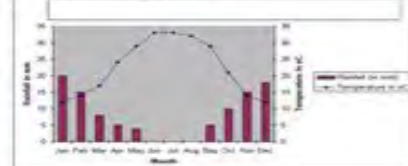
Write the name of the biome that best matches the data in the space provided.

Write the name of the biome that best matches the data in the space provided.

Fill in the blanks below. Word Bank: Cold, Wet, Warm, Dry, Rain Forest, Warm, Cold, Boreal, Tundra



Use the graphs to answer the questions.



What biome do you believe this is? Write the name of the biome in the space provided.

What month is the warmest? Write the month in the space provided.

What month is the coldest? Write the month in the space provided.

What month is the wettest? Write the month in the space provided.

What month is the driest? Write the month in the space provided.

What type of plants and animals would you find in this biome?

Write the names of the plants and animals that you would find in this biome in the space provided.

Plants: _____

Animals: _____

Which biome is shown in the world map?



Circle the number that corresponds to the biome shown in the map.

Biome	Temp (°C)	Animals	Plants	Where on Earth
Tropical Rain Forest				
Temperate Rain Forest				
Temperate Deciduous Forest				
Temperate Grassland				
Temperate Desert				
Tundra				

Draw an animal that lives in this biome.

Draw an animal that lives in this biome in the space provided.

Animal: _____

Continuation Graph



Graph the data

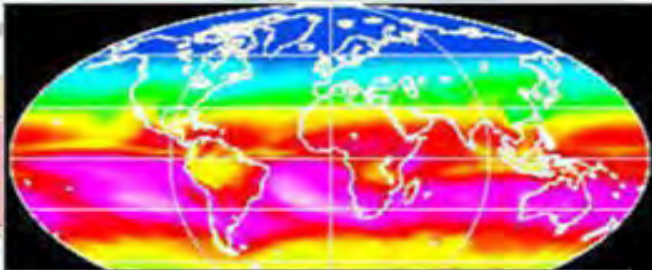


Never Cry Wolf Optional Movie



Skit Project, Assessments, Games, More all built-in

• Temperature differences from solar radiation.



Biome	Temp (Avg)	Rainfall (Avg)	Plants	Animals	Where on Earth
Tundra	50°F or 10°C Average	1200" or 1 foot a year	Moss, Grasses, Flower plants, Shrubby plants	Beaver, arctic fox, ground squirrels, birds, Moose, Caribou	Arctic Circle, Canada, Alaska, Siberia
Hot Desert	20°C - extreme 40°C	Under 15 cm a year	Mixed Cactus, Spotted Bushes, Joshua Tree, Yucca	Lizards, Rodents, Snakes, Antelope, Scorpions	South of Canada and Texas, all of California
Tundra	50°F or 10°C	Dry 4" or less a year in the form of snow	Moss, Willow, Plants with berries, low to ground	Wolves, Caribou, Moose, Grizzly Bear, Black Bear, Moose, Polar Bear, Snowy Owl, Ravens	Northwest part of Canada and the north of Alaska
Temperate Forest / Deciduous	50°F or 10°C	Very wet 50 - 100 inches (12 - 25 in)	Pin, Spruce, Cedar, Pine, Birch, Maple, Ash	Black Bear, Bobcat, Lynx, Bald Eagle, Wolf, Other Birds, Rabbits	Stretch across Canada in N. America just below Tundra - Largest Biome
Savanna	50°F or 10°C	Wet and Dry Season 15 to 25 inches of rain	Mixed Grasses, Acacia Trees, Baobabs, Eucalyptus	Elephant, Giraffe, Zebra, Lion, Cheetah, Buffalo, Rhinoceros	Found between a tropical rainforest and desert biome

- Biome characteristics
- Large area of Earth



Can you say this with me...

Biomes
Determined by
rainfall and temperature
Life Sustaining
Change over time
Altered

What obstacles did Tyler face? How did he overcome those obstacles and complete his research?

Describe some methods that Tyler used to observe wolves and collect data throughout the movie.

Describe the Arctic Tundra and Boreal Forest that Tyler lived in. (Think temperature and precipitation). What was the vegetation like? What were some animals that he observed?

How did Tyler's attitude change throughout the movie? What influences help create this change?



5

prairie

SlideSpark Science



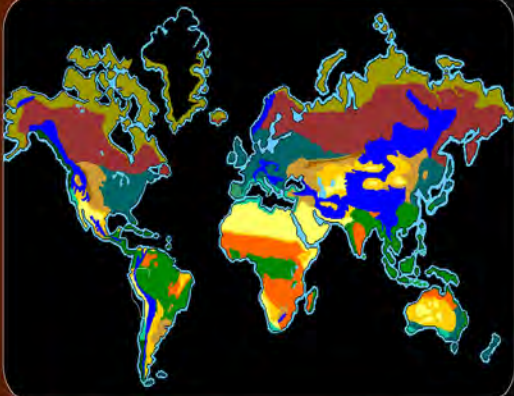
MIDDLE-LEVEL EDUCATIONAL RESOURCES

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.



- A biome is a large, distinctive complex of plant communities created and maintained by climate.



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Part 7 Biomes

Part 7 Lesson

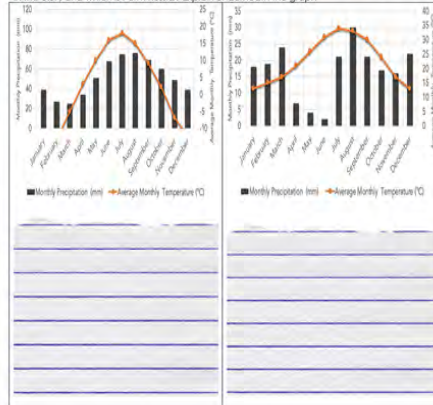
Name:

Due:

A biome is a large, distinctive complex of _____ communities created and maintained by _____.

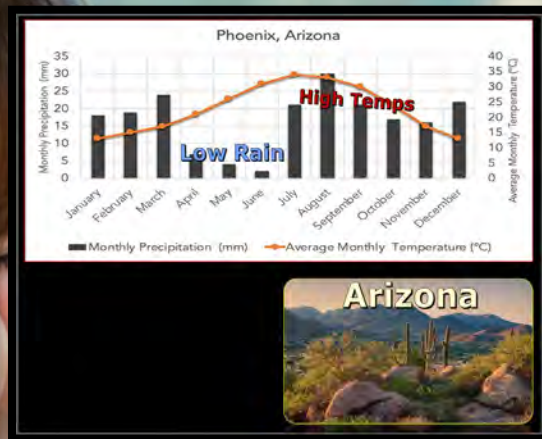
Rainfall and _____ determine the type of biome.

Compare the precipitation and temperature data below? Which is chart is Phoenix Arizona in the U.S., and which is Perm Russia? Explain underneath the graph.



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.



Additional and Printables



Part 7 Lesson 1 Biomes



Part 7 Lesson 2 Biome Research



Part 7 Lesson 3 Skit



Part 7 Lesson 4 Quiz Wrap-Up



Part 7 Work Bundle Answers



Part 7 Work Bundle pdf Writable



Part 7 Work Bundle Print

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

Follow Along Work Bundle

Each science unit includes a single printable work bundle that stays with students from start to finish. Just print and distribute on day one—no daily handouts needed. The bundle follows the unit chronologically and includes everything: fill-in notes, diagrams, quizzes, lab activities, with follow up questions and much more. It's used daily, supports the end-of-unit quiz game, and is handed in for an additional assessment. Answer keys, some writable .pdf versions, and digital versions are also included for flexible classroom use..

The collage displays a variety of science worksheets and diagrams. Key elements include:

- Part 7 Biomes:** A worksheet with two bar graphs showing precipitation and temperature for different biomes, and a list of biomes to be identified.
- Biome Pyramid:** A diagram showing the hierarchy of biomes: Ecosystem, Community, Population, and Individual.
- Climate Graph:** A line graph showing monthly temperature and precipitation for a specific location.
- World Map:** A map of the world with labels for major biomes and climate zones.
- Never Cry Wolf:** A worksheet featuring a wolf illustration and text about the book, including a section on the movie adaptation.
- Various Worksheets:** Numerous other pages with text, diagrams, and tables, all designed for student use throughout the science unit.

Bioomes

Work Bundle

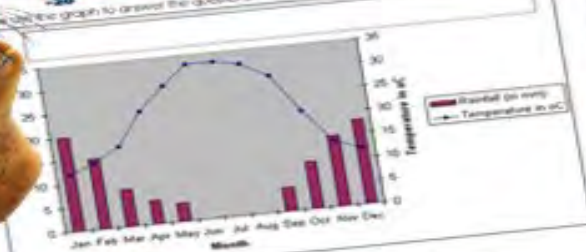
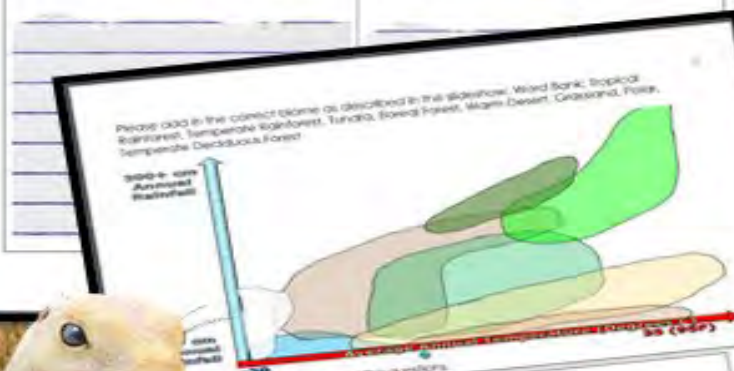
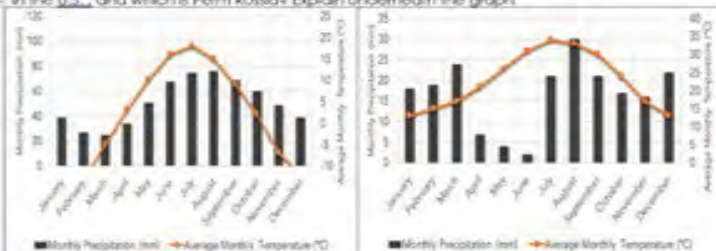
Part 7 Biomes

Part 7 Lesson

A biome is a large, distinctive complex of _____ communities created and maintained by _____.

Rainfall and _____ determine the type of biome.

Compare the precipitation and temperature data below? Which is chart is Phoenix Arizona in the U.S., and which is Perm Russia? Explain underneath the graph.



Some characteristics

- Similar area of Earth
- Similar predictable climate
- Similar plant species
- Similar soil
- Similar amount of sunlight

Which of the following is not a characteristic of a biome?

- A.) Large area of Earth
- B.) Similar predictable climate
- C.) Similar plant species
- D.) Similar soil
- E.) Similar amount of sunlight
- F.) None of the above

Genetic Rule: the higher the _____ and genetic _____, the more and larger plants that the biome can support.

Animals will always follow.

Please complete the diagram below about biomes as described in the lesson.



Research Biomes

What months receive the most rainfall?

What months receive the least rainfall?

What type of plants and animals might you find in this biome?

Which months are summer in this biome? And which months are winter based on the temperature data?

Which biome covers 72% of the earth's surface?

Use the map below to describe the correlation between Earth's biomes and latitude.

Key to the corresponding biome:

◆

◆

◆

◆

Biome	Temp (Avg)	Rainfall (Avg)	Plants
Prairie			
Hot Desert			
Tundra			
Boreal Forest / Taiga			
Savanna			
Tropical Rain Forest			

11 Pages

Answer Version

Part 7 Biomes

Part 7 Biomes

A biome is a large distinctive complex of communities characterized by its climate and its dominant plants and animals.

Complete the precipitation and temperature data below, drawing a graph of climate across the following 12 months of a year. Record the climate across the 12 months of a year.



Climate is determined by the amount of precipitation and the average temperature. The climate of a biome is determined by the amount of precipitation and the average temperature.

Climate is determined by the amount of precipitation and the average temperature. The climate of a biome is determined by the amount of precipitation and the average temperature.

Climate is determined by the amount of precipitation and the average temperature. The climate of a biome is determined by the amount of precipitation and the average temperature.

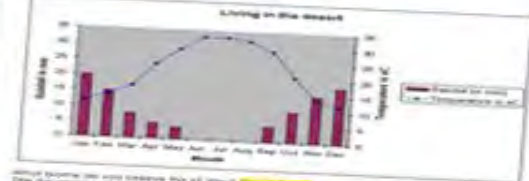
Climate is determined by the amount of precipitation and the average temperature. The climate of a biome is determined by the amount of precipitation and the average temperature.

General rule: The higher the latitude, the colder the climate. The lower the latitude, the warmer the climate.

Complete the diagram below about biomes as described in the lesson.



Place the following biomes in the diagram below.



What biome do you think this is? It's a desert.

Describe the climate of this biome. It's hot and dry.

What animals live in this biome? Camels, snakes, and lizards.

What plants live in this biome? Cacti and succulents.

What is the main problem for animals in this biome? Lack of water.

Biomes



Colorcode this key to the map.

Biome	Temp (avg)	Precip (avg)	Plants	Animals
Tundra	10°F (3°C)	10 in (254 mm)	Lichens, mosses	Caribou, reindeer
Boreal Forest	20°F (-6°C)	30 in (762 mm)	Coniferous trees	Squirrels, porcupines
Temperate Rainforest	50°F (10°C)	100 in (2540 mm)	Deciduous trees	Wolves, bears
Deciduous Forest	60°F (15°C)	40 in (1016 mm)	Deciduous trees	Wolves, bears
Grassland	70°F (21°C)	20 in (508 mm)	Grasses	Wolves, bears
Desert	80°F (27°C)	10 in (254 mm)	Cacti, succulents	Wolves, bears
Savanna	90°F (32°C)	30 in (762 mm)	Grasses, acacia trees	Wolves, bears

Complete the following table.

Copy and paste the following table into your notebook.

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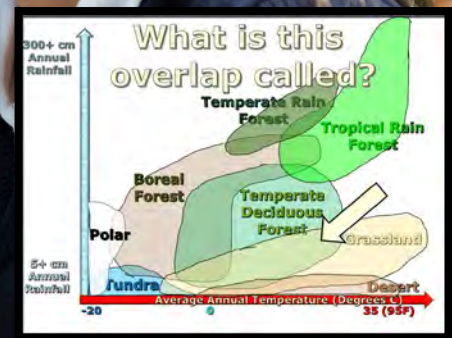
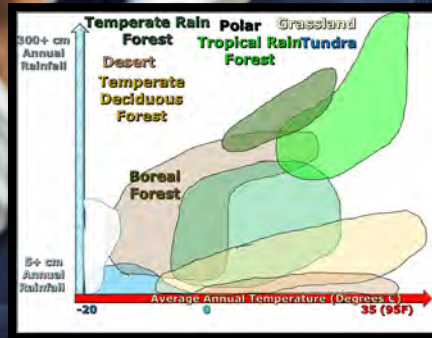
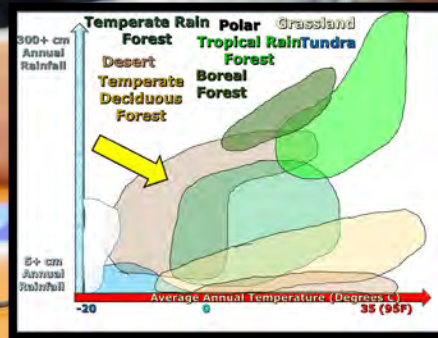
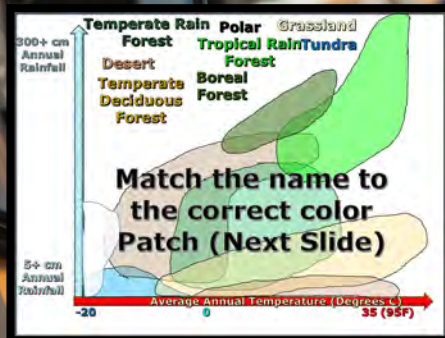
Copy and paste the following table into your notebook.

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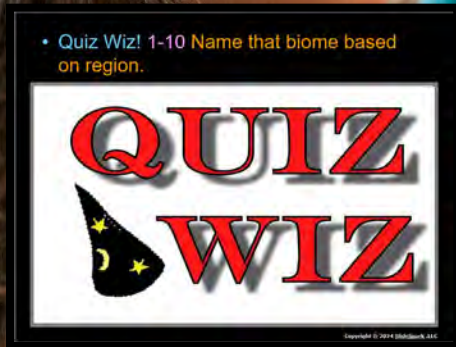
Built-in Questions and Assessments

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.



Built-in Quiz

This unit contains several built-in assessments that students answer in their work bundle. With the question revealed before the answer, the teacher can easily call on individual students or table groups to respond. These provide an effective and efficient way for teachers to assess student learning.



Quiz Wiz! 1-10 Name that biome based on region. (10 points equals 2 point bonus)

1)	2)	3)	4)
5)	6)	7)	8)
9)	10)	11)	12)
13)	14)	15)	16)
17)	18)	19)	20)

Score _____

Quiz Wiz! 1-10 Name that biome based on region. (10 points equals 2 point bonus)

1)	2)	3)	4)
5)	6)	7)	8)
9)	10)	11)	12)
13)	14)	15)	16)
17)	18)	19)	20)

Score #21 _____

Page #22

Questions in Work Bundle

Built-in Video Links

Our science education program is designed with the modern, multimedia learner in mind, and our video 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.

- Video Link! Biomes of the World (Optional)
 - Some Review of Weather and Climate
 - <https://www.youtube.com/watch?v=ZouWWVyz9v8>



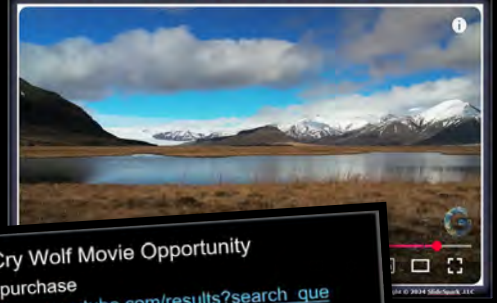
- Activity! Research for the Biomes.
 - <http://www.ucmp.berkeley.edu/exhibits/biomes/index.php> to find answers to spreadsheet.
 - <http://www.physicalgeography.net/fundamentals/9k.html>
 - <https://php.radford.edu/~swoodwar/biomes/>

Biome	Climate (Avg)	Plants	Animals	Where on Earth
Tropical Rainforest				
Temperate Rainforest				
Temperate Deciduous Forest				
Temperate Coniferous Forest				
Boreal Forest / Taiga				
Arctic Tundra				
Alpine Tundra				
Grassland / Prairie				
Savanna				
Desert				

- Video Links for Biome Skit Background (Optional) – Audio can be disabled or not.
- Tropical Rainforest
 - <http://www.youtube.com/watch?v=Ik-X2vtIGKE>
- Hot Desert
 - <http://www.youtube.com/watch?v=cdeBxjglg>
- Grassland / Prairie
 - <https://www.youtube.com/watch?v=cdp7M2Pxxsi>
- Boreal Forest / Taiga
 - <https://www.youtube.com/watch?v=5GmASPIAA>
- Arctic Tundra
 - http://www.youtube.com/watch?v=DZm_WKA_31g
- African Savanna
 - <http://www.youtube.com/watch?v=QnAO-9b6vAQ>

Still backdrops option on next slide

- Optional Review Video of Earth's Biomes
 - https://www.youtube.com/watch?v=o_AfNcjlOqU

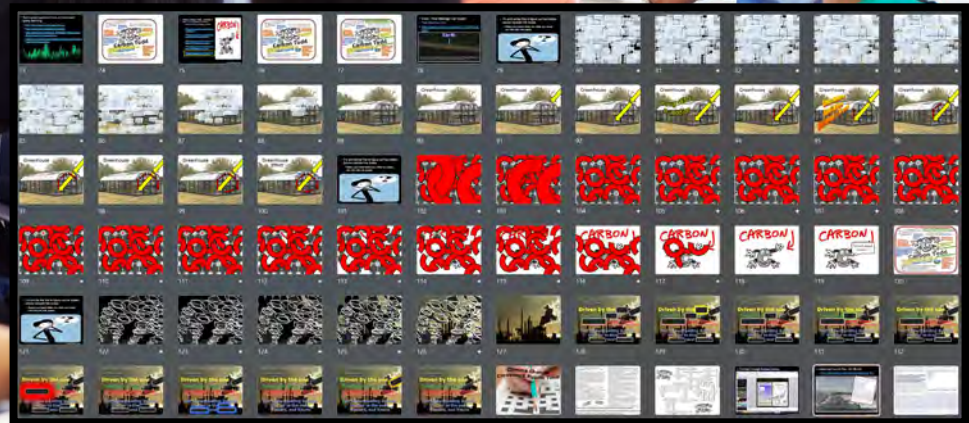
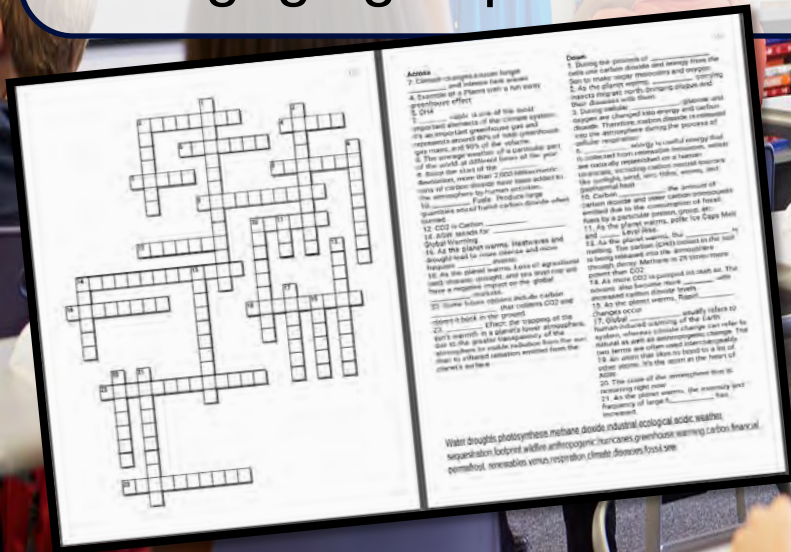


- Never Cry Wolf Movie Opportunity
 - Small purchase
 - https://www.youtube.com/results?search_query=Never+cry+wolf

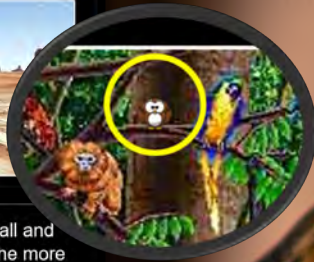


Games and Review

Games are a fantastic way for students to learn scientific concepts while having fun. We incorporate a variety of games into our curriculum, including interactive quizzes and puzzles that challenge students to think critically about the material. Our Hidden Box Games are a particularly popular feature, which conclude each unit by revealing a picture related to the topic. Students try to guess what the picture might be, making learning an engaging experience.



- General Rule: The higher the rainfall and average temperature in a biome, the more and larger plants that the biome can support.



- General Rule: The higher the rainfall and average temperature in a biome, the more and larger plants that the biome can support.



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 7 Lesson 1 Biomes](#)
Google Slides



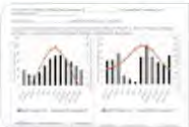
[Part 7 Lesson 2 Biome Research](#)
Google Slides



[Part 7 Lesson 3 Skit](#)
Google Slides



[Part 7 Lesson 4 Quiz Wrap Up](#)
Google Slides



[Part 7 Work Bundle pdf Writing](#)
PDF

Weather and Climate Unit

Weather and Climate Unit

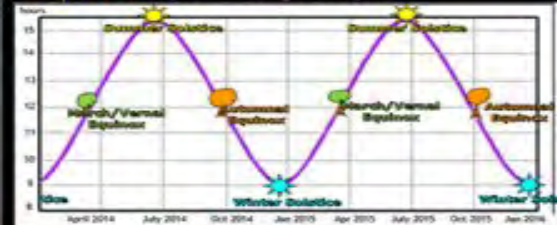
40 Lessons (6th-8th Grade Medium Difficulty). Part 1 is 7 Lessons and 17 Page Work Bundle, Part 2 is 5 Lessons and 14 Page Work Bundle, Part 3 is 8 Lessons and 18 Page Work Bundle, Part 4 is 5 Lessons and 13 Page Work Bundle, Part 5 is 4 Lessons and 12 Page Work Bundle , Part 6 is 6 Lessons and 17 Page Work Bundle, Part 7 is 4 Lessons and 9 Page Work Bundle

Weather and Climate Mega Bundle



Interactive Slideshows

- When is the March/Vernal and autumnal equinox. Purple line is length of day in NYC



- All other gases 1%

- *Argon
- *Carbon Dioxide
- Neon
- Helium
- Methane
- Krypton
- Hydrogen
- Xenon



- Air pressure applies a force equal in...

- A) all layers of the atmosphere
- B) all directions
- C) atmospheric pressure
- D) magnitude of the gas
- E) 565 Pascal Units



Which half of the earth gets more light during this season?

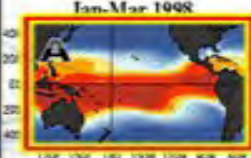


Equator gets even sunlight all year round

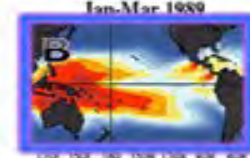
- Which is El Niño, and which is La Niña?

OCEAN TEMPERATURES (°C)

EL NIÑO
Jan-Mar 1998



LA NIÑA
Jan-Mar 1999



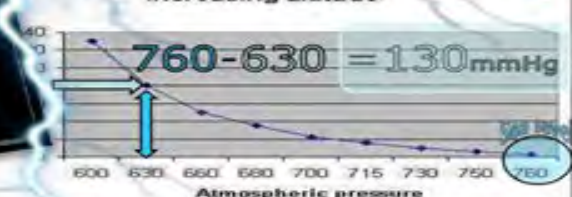
- Which is high pressure and which is low pressure?

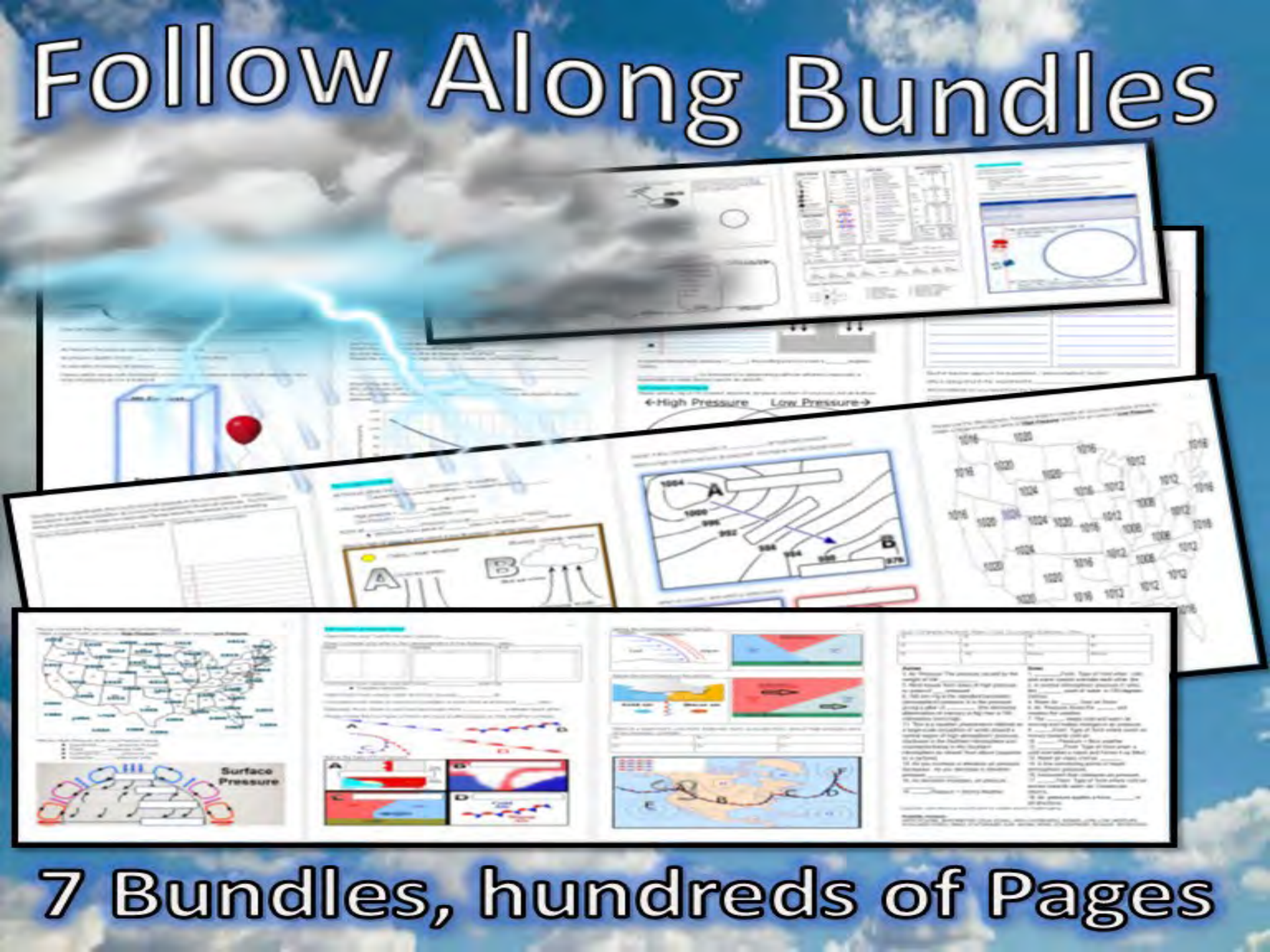


What's the difference (mm of Hg) in air pressure between sea level and 80 meters in altitude?

- A) 1,000 B) 760 C) 499 D) 130 E) .001 F) 3 KPa

Atmospheric pressure decreases with increasing altitude



[illegible][illegible]

Hands-on Activities, Assessments, Games

- Which is weather, and which is climate?

A.) Climate is the atmospheric conditions over a long period of time (years).

B.) Weather is what is occurring right now.

2

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Which colored arrow is the path for many hurricanes that hit the United States?



- These are the remains of plants and animals from hundreds of millions of years ago.

– We found a way to use ancient sunlight from millions of years ago, thus borrowed light.

7



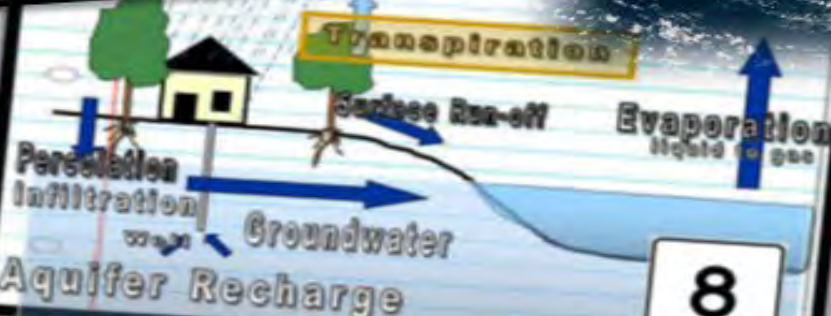
What are the three main types of clouds?



13

and warm air currents
Gulf Stream
Atlantic Ocean

3



8

[Part 1: Weather and Climate Unit](#): Weather Symbols, What is weather?, Difference between Weather and Climate, Climate, Importance of the Atmosphere, Components of the Atmosphere, Layers of the Atmosphere, Air Quality and Pollution, Carbon Monoxide, Acid Rain, Particulate Matter, Ground Level Ozone, Ozone Layer, Ways to Avoid Skin Cancer, Box Game Review, Crossword Puzzle, End Unit Assessment with Answer Version so students can Self-Assess

[Part 2: Weather and Climate Unit](#): Weather and Climate Unit Part 2: Air Pressure, Air Pressure and Elevation, Barometers, Isobars, Cyclonic and Anticyclonic Systems, Air Pressure and Wind, Fronts, Type of Fronts, Pressure Systems on Global Winds, Box Game Review, Crossword Puzzle, End Unit Assessment with Answer Version so students can Self-Assess

[Part 3: Weather and Climate Unit](#): Wind, Global Wind, Coriolis Force, Jet Stream, Sea Breeze / Land Breeze, Mountain Winds, Mountain Rain Shadow, Wind Chill, Flight, Dangerous Weather Systems, Light, Albedo, Temperature, Thermometers, Seasons, Solstice, Equinox, Axial tilt, Box Game Review, Crossword Puzzle, End Unit Assessment with Answer Version so students can Self-Assess

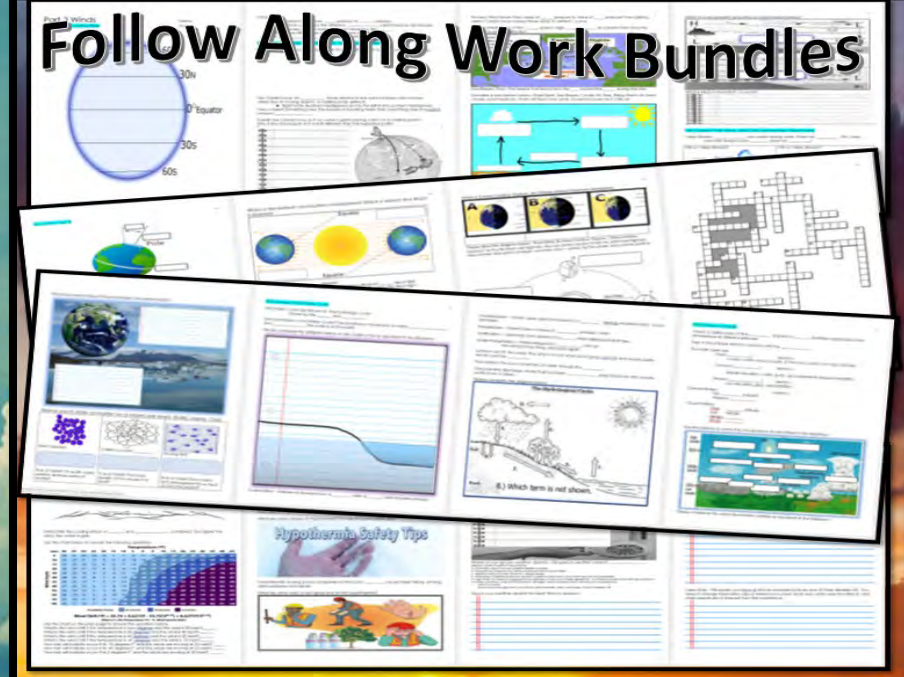
[Part 4: Weather and Climate](#): Water % on Earth, High Specific Heat of Water, States of Water, Importance of the Oceans on Earth's Weather, The Gulf Stream, Ocean Currents, El Nino, La Nina, Water Cycle, Terms of the Water Cycle, Condensation, Precipitation, Evaporation, Box Game Review, Crossword Puzzle, End Unit Assessment with Answer Version so students can Self-Assess

[Part 5: Weather and Climate Unit](#): Weather Forecasting, Weather Symbols, Reading and Weather Model, Weather Tools, Thermometer, Weathervane, Anemometer, Beaufort Scale, Barometer, Hygrometer, Sling Psychrometer, Rain Gauge, Dew, Dew Point, Heat Index, Satellites, Radar, Isobars, Isotherms, Box Game Review, Crossword Puzzle, End Unit Assessment with Answer Version so students can Self-Assess

[Part 6: Weather and Climate Unit](#) : Climate Change: Climate Change, AGW Anthropogenic Global Warming, Difference between Weather and Climate, Understanding the Carbon Atom, Natural Emitters of Carbon, Greenhouse Effect, Interpreting Graphs associated with Climate Change, Impacts of Climate Change, Solutions to Climate Change, Movie Ice on Fire Sheet, Box Game Review, Crossword Puzzle, End Unit Assessment with Answer Version so students can Self-Assess

[Part 7: Biomes](#): Biomes: Biomes, Biome Characteristics, Comparing two different Biomes, Biomes on Earth, Case Study on a Biome, Biome Skit Activity Crossword Puzzle, End Unit Quiz that Names the Biome based on a Picture

Weather and Climate Unit



Weather and Climate Unit Part 1: Weather Symbols, What is weather?, Difference between Weather and Climate, Climate, Importance of the Atmosphere, Components of the Atmosphere, Layers of the Atmosphere, Air Quality and Pollution, Carbon Monoxide, Acid Rain, Particulate Matter, Ground Level Ozone Ozone Layer, UV, Ways to Avoid Skin Cancer

Part 1: Weather and Climate Unit



Additional and Printables



Part 1 Lesson 1 Weather vs Climate



Part 1 Lesson 2 Atmosphere



Part 1 Lesson 3 Layers of the Atmosphere



Part 1 Lesson 4 Air Quality



Part 1 Lesson 5 Particulates Ozone



Part 1 Lesson 6 Skin Cancer



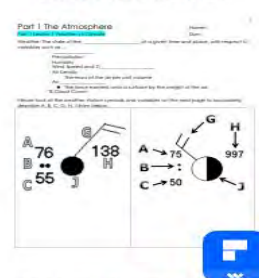
Part 1 Lesson 7 Review Game



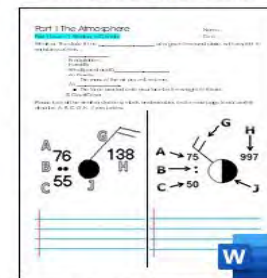
Part 1 Lesson 8 Review Game Answers



Part 1 Work Bundle Answers



Part 1 Work Bundle pdf Writable



Part 1 Work Bundle Print

Weather and Climate Unit Part 2: Air Pressure, Air Pressure and Elevation, Barometers, Isobars, Cyclonic and Anticyclonic Systems, Air Pressure and Wind, Fronts, Type of Fronts, Pressure Systems on Global Wind

Part 2: Weather and Climate Unit



Additional and Printables



Part 2 Lesson 1 Air



Part 2 Lesson 2 Air Pressure Projects



Part 2 Lesson 3 Isobars



Part 2 Lesson 4 Weather Fronts



Part 2 Lesson 5 Review Game



Part 2 Lesson 6 Review Game Answers



Part 2 Work Bundle Answers



Part 2 Work Bundle pdf Writable



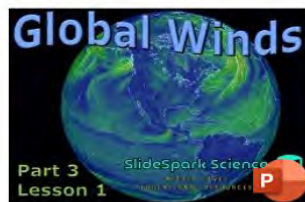
Part 2 Work Bundle Print

Part 3 Wind: Wind, Global Wind, Coriolis Force, Jet Stream, Sea Breeze / Land Breeze, Mountain Winds, Mountain Rain Shadow, Wind Chill, Flight, Dangerous Weather Systems, Light, Albedo, Temperature, Thermometers, Seasons, Solstice, Equinox, Axial tilt,

Part 3: Weather and Climate Unit



Additional and Printables



Part 3 Lesson 1 Global Winds



Part 3 Lesson 2 Coriolis Force



Part 3 Lesson 3 Wind Chill and More



Part 3 Lesson 4 Airplane Severe Weather Project



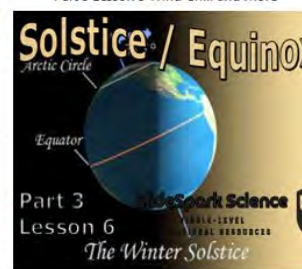
Part 3 Lesson 5 Severe Weather Systems



Part 3 Lesson 6 Light and Temp



Part 3 Lesson 7 Axial Tilt Seasons



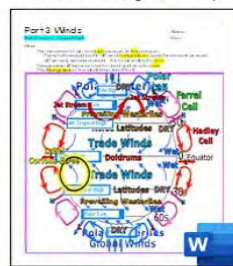
Part 3 Lesson 8 Solstice Equinox



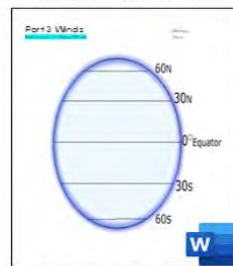
Part 3 Lesson 9 Review Game



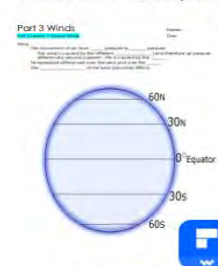
Part 3 Lesson 10 Review Game Answers



Part 3 Work Bundle Answers



Part 3 Work Bundle Print



Part 3 Work pdf Writable

Weather and Climate Unit Part 4, Earth the Water Planet: Water % on Earth, High Specific Heat of Water, States of Water, Importance of the Oceans on Earth's Weather, The Gulf Stream, Ocean Currents, El Nino, La Nina, Water Cycle, Terms of the Water Cycle, Condensation, Precipitation, Evaporation

Part 4: Weather and Climate

Additional and Printables

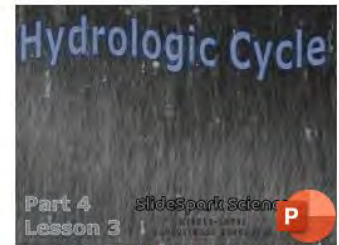
Just the Water Cycle



Part 4 Lesson 1 Water Planet



Part 4 Lesson 2 El Nino Water Molecule



Part 4 Lesson 3 Water Cycle two days



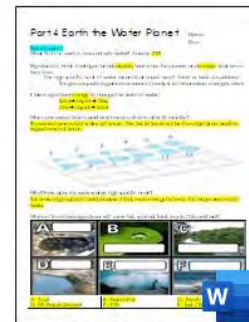
Part 4 Lesson 4 Clouds



Part 4 Lesson 5 Review Game



Part 4 Lesson 6 Review Game Answers



Part 4 Work Bundle Answers



Part 4 Work Bundle pdf Writable

Weather Forecasting, Weather Symbols, Reading and Weather Model, Weather Tools, Thermometer, Weathervane, Anemometer, Beaufort Scale, Barometer, Hygrometer, Sling Psychrometer, Rain Guage, Dew, Dew Point, Heat Index, Satellites, Radar, Isobars, Isotherms,

Part 5: Weather and Climate Unit



Additional and Printables



Part 5 Lesson 1 Weather Variables Wind Vane



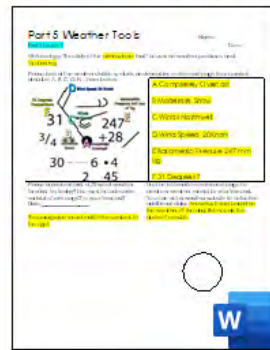
Part 5 Lesson 2 Anemometer Barometer



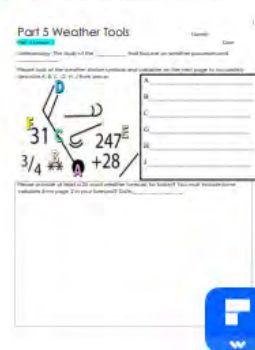
Part 5 Lesson 3 Measuring Water



Part 5 Lesson 4 Isotherm and Wrap Up Quiz



Part 5 Work Bundle Answers



Part 5 Work Bundle pdf Writable



Part 5 Work Bundle Print

Weather and Climate Unit Part 6: Climate Change: Climate Change, AGW Anthropogenic Global Warming, Difference between Weather and Climate, Understanding the Carbon Atom, Natural Emitters of Carbon, Greenhouse Effect, Interpreting Graphs associated with Climate Change, Impacts of Climate Change, Solutions to Climate Change, Move Ice on Fire Sheet

Part 6: Weather and Climate Unit



Additional and Printables



Part 6 Lesson 1 AGW



Part 6 Lesson 2 Greenhouse



Part 6 Lesson 3 Impacts



Part 6 Lesson 4 Future



Part 6 Lesson 5 Wrap Up



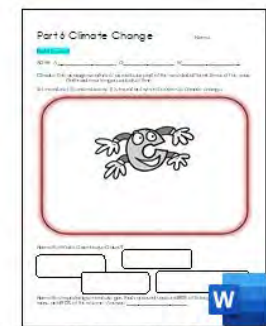
Part 6 Lesson 6 Review Game



Part 6 Lesson 7 Review Game Answers



Part 6 Work Bundle Answers



Part 6 Work Bundle Print

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	
Weather and Climate Unit	40 Lessons	6-8 medium difficulty	
Astronomy Unit	60 Lessons	6-8 medium difficulty	
Weathering, Soil Sciences	28 Lessons	5-7 easier	
Rivers and Water Quality	25 Lessons	5-7 easier	
Water Molecule Unit	20 Lessons	5-7 easier	
Biogeochemical Cycles Unit	16 Lessons	5-7 easier	

Life Science Units

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	

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

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