

TYPES OF ECOSYSTEM

Science Reading



Scroll Through

To take a peek inside!

Help students learn about the different types of ecosystems and test their comprehension with these easy to read science reading passages.

Why? SCIENCE READING PASSAGES?

- ✓ Increase science literacy in the classroom
- ✓ Simple passages to help students comprehend the information
- ✓ Note-taking template to help students interact with the reading
- ✓ Worksheets to review and apply their knowledge
- ✓ Reinforcement task cards to continue their understanding

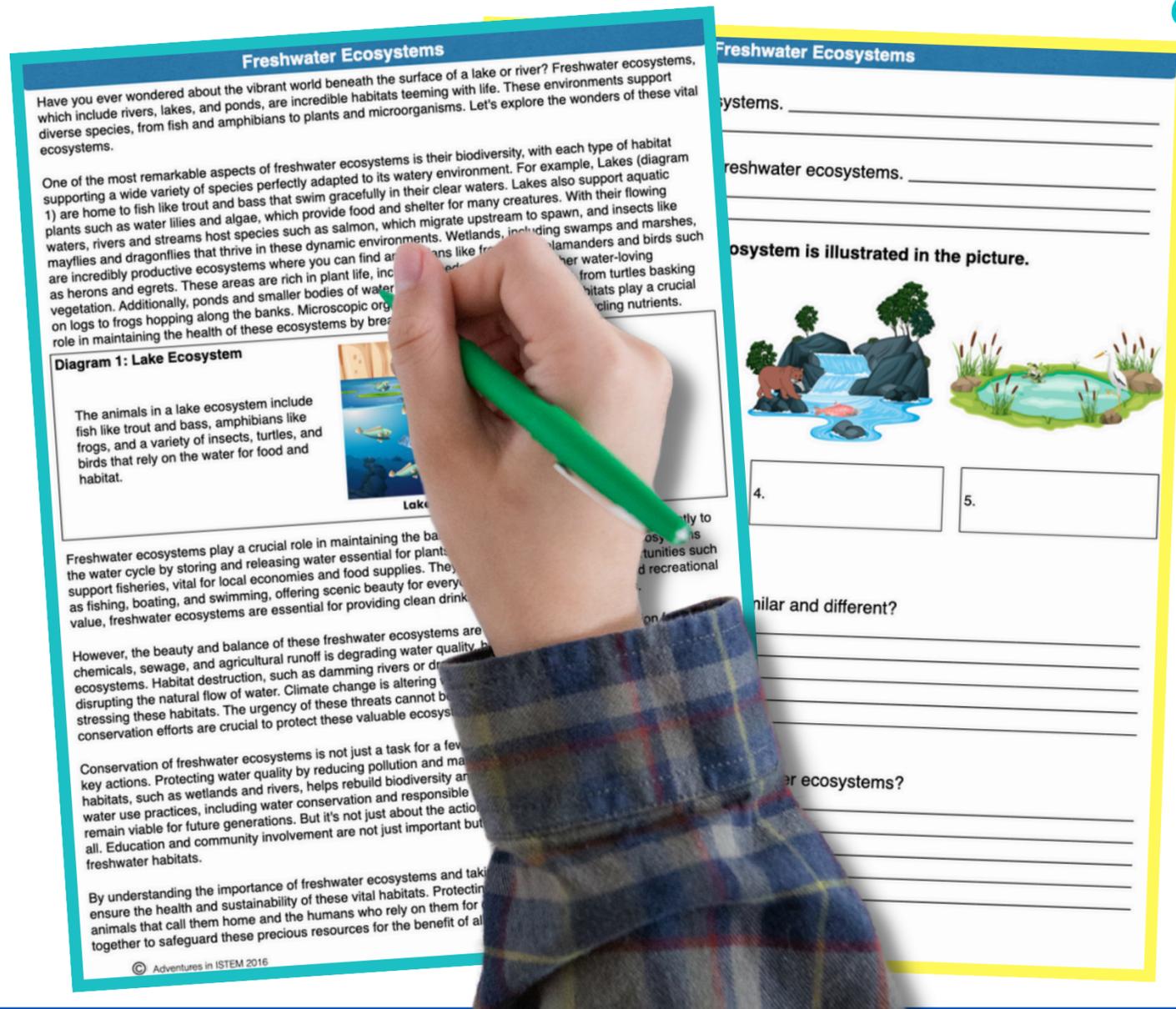


“This resource was absolutely perfect for when I was out sick with covid for multiple days. The content is exactly what I wanted to cover with my students, easy for a substitute to implement, and I was happy knowing my students’ time was being used productively!

Thank you! “- Emily

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What Are *students* Doing?

- ✓ **Marking the text**
- ✓ **Filling in the guided note-taking template**
- ✓ **Reviewing and applying their knowledge**
- ✓ **Reinforcing their understanding**

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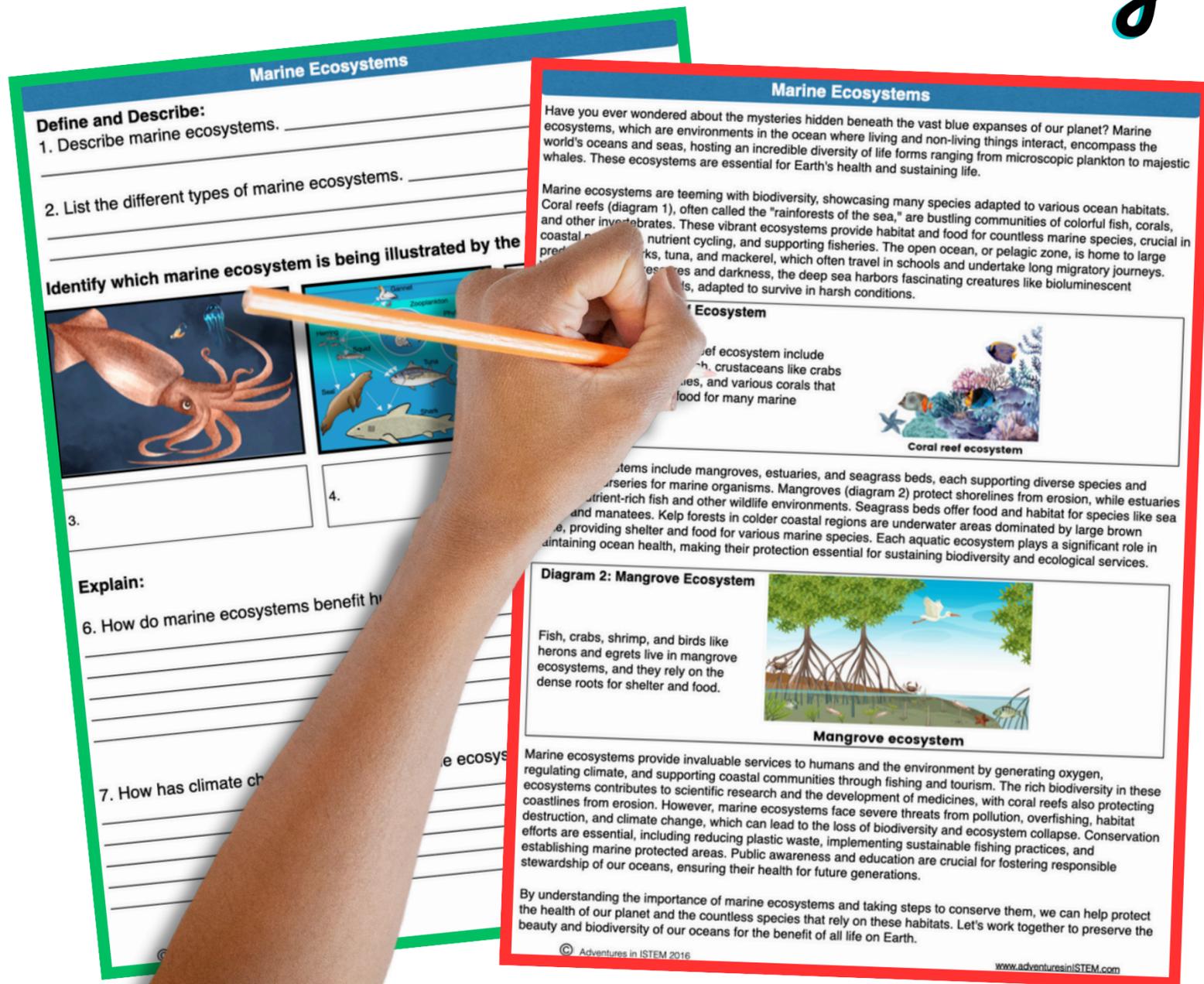
Science Reading

Marine Ecosystems

Define and Describe:

1. Describe marine ecosystems.
2. List the different types of marine ecosystems.

Identify which marine ecosystem is being illustrated by the



Marine Ecosystems

Have you ever wondered about the mysteries hidden beneath the vast blue expanses of our planet? Marine ecosystems, which are environments in the ocean where living and non-living things interact, encompass the world's oceans and seas, hosting an incredible diversity of life forms ranging from microscopic plankton to majestic whales. These ecosystems are essential for Earth's health and sustaining life.

Marine ecosystems are teeming with biodiversity, showcasing many species adapted to various ocean habitats. Coral reefs (diagram 1), often called the "rainforests of the sea," are bustling communities of colorful fish, corals, and other invertebrates. These vibrant ecosystems provide habitat and food for countless marine species, crucial in nutrient cycling, and supporting fisheries. The open ocean, or pelagic zone, is home to large predators like sharks, tuna, and mackerel, which often travel in schools and undertake long migratory journeys. In the deep sea, where there is no sunlight and darkness, the deep sea harbors fascinating creatures like bioluminescent organisms, adapted to survive in harsh conditions.

Diagram 1: Coral Reef Ecosystem

This ecosystem includes colorful fish, crustaceans like crabs, mollusks, and various corals that provide food for many marine organisms.



Diagram 2: Mangrove Ecosystem

Fish, crabs, shrimp, and birds like herons and egrets live in mangrove ecosystems, and they rely on the dense roots for shelter and food.



Marine Ecosystems

Marine ecosystems provide invaluable services to humans and the environment by generating oxygen, regulating climate, and supporting coastal communities through fishing and tourism. The rich biodiversity in these ecosystems contributes to scientific research and the development of medicines, with coral reefs also protecting coastlines from erosion. However, marine ecosystems face severe threats from pollution, overfishing, habitat destruction, and climate change, which can lead to the loss of biodiversity and ecosystem collapse. Conservation efforts are essential, including reducing plastic waste, implementing sustainable fishing practices, and establishing marine protected areas. Public awareness and education are crucial for fostering responsible stewardship of our oceans, ensuring their health for future generations.

By understanding the importance of marine ecosystems and taking steps to conserve them, we can help protect the health of our planet and the countless species that rely on these habitats. Let's work together to preserve the beauty and biodiversity of our oceans for the benefit of all life on Earth.

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Different ways to use the *science readings*

- Substitute plan on days you will be out
- Introduction of the material at the beginning of the unit
- During the explain phase of the 5E model
- As part of a science station
- For reteach to reinforcing their understanding
- During the review at the end of the unit

TYPES OF ECOSYSTEM

Science Reading

Terrestrial Ecosystems

Define and Describe:

1. Describe terrestrial biome. _____
2. List the different types of terrestrial _____

Terrestrial Ecosystems

Have you ever wondered about the vibrant tapestry of Earth's terrestrial ecosystems, where each biome tells an engaging story of adaptation and survival? Terrestrial biomes, defined as large land-based regions characterized by specific climate conditions, plant communities, and animal populations, encompass various landscapes, each with unique features and inhabitants. Deserts, with their sparse vegetation and high temperatures, are home to specialized plants and animals. From the Sonoran Desert's resilient cacti to the Sahara's elusive fennec foxes, desert ecosystems show remarkable adaptations to arid conditions. Despite their harsh environments, deserts play an important role in global biodiversity and climate regulation.

Grasslands (diagram 1), stretching across vast plains and savannas, support a variety of grazers like bison and zebras and predators like lions and cheetahs. These ecosystems are crucial for maintaining global carbon balance and providing habitat for diverse wildlife. The health of grasslands is essential for the survival of many species and the services they provide to humans and the environment. Tropical rainforests, with their towering trees and lush undergrowth, host unparalleled biodiversity. From the colorful toucans of the Amazon to the elusive jaguars of the Congo, these biomes teem with life at every level. Rainforests are biodiversity hotspots and crucial for global oxygen production and climate regulation.

Diagram 1: Grassland Ecosystem

Animals in an African grassland ecosystem include zebras, giraffes, and elephants, which graze on grasses and shrubs. Lions, cheetahs, and hyenas are the primary predators hunting these herbivores.

Diagram 2: Deciduous forest ecosystem

Deer, foxes, and squirrels forage for plants and nuts in a deciduous forest ecosystem, while owls, hawks, and snakes prey on smaller animals.

Diagram 3: Boreal forest ecosystem

The taiga, or boreal forest, blankets the northern latitudes with coniferous trees and pristine snow. In winter, amidst the silent snowdrifts and towering pines, creatures like wolves and moose roam freely. The taiga plays a critical role in global carbon storage and climate regulation. In contrast, the tundra, with its frozen landscapes and resilient flora, is a testament to the tenacity of life in extreme environments. From the hardy musk oxen of the Arctic to the elusive ptarmigans of the Antarctic, tundra ecosystems embody resilience and adaptation. Preserving the tundra is essential for maintaining biodiversity and the unique ecological processes of these cold environments.

In summary, terrestrial biomes, from deserts and grasslands to rainforests and tundras, offer unique habitats supporting diverse species and vital ecological functions. Understanding and preserving these varied landscapes ensures biodiversity protection and the health of our planet's ecosystems for future generations.

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Check out what teachers just like you have said about these product:



“I have incorporated these into my regular lessons and could not be more pleased. They are thorough, engaging and fun. I am very pleased with this purchase.” **Rahim**



“Perfect sub activities! Bought the bundle so I would have something for every unit. If there was nuclear section that would be icing on the cake! :) Maybe in the future?” **Karis**



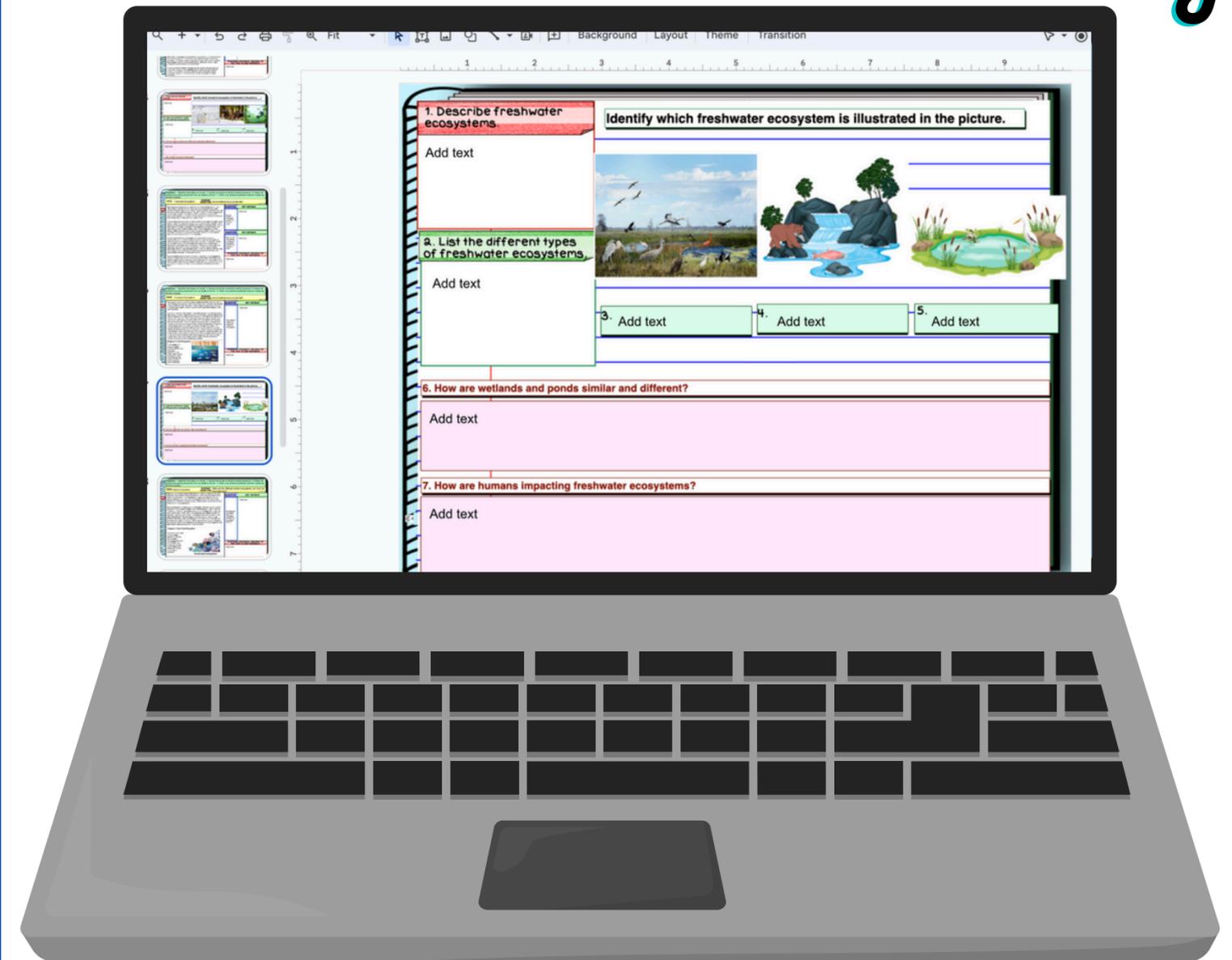
“This was a wonderful and engaging resource. My students were able to take a lot from it, and I loved how easy it was to prep it out.” – **Christine**

Resource *includes*

- ✓ **3 Reading Passages**
- ✓ **3 Note-taking guides**
- ✓ **3 Comprehension Worksheets**
- ✓ **4 Task cards**
- ✓ **Answer key**
- ✓ **Digital version**

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Terrestrial Ecosystems

Have you ever wondered about the vibrant tapestry of Earth's terrestrial ecosystems, where each biome tells an engaging story of adaptation and survival? Terrestrial biomes, defined as large land-based regions characterized by specific climate conditions, plant communities, and animal populations, encompass various landscapes, each with unique features and inhabitants. Deserts, with their sparse vegetation and high temperatures, are home to specialized plants and animals. From the Sonoran Desert's resilient cacti to the Sahara's elusive fennec foxes, desert ecosystems show remarkable adaptations to arid conditions. Despite their harsh environments, deserts play an important role in global biodiversity and climate regulation.

Grasslands (diagram 1), stretching across vast plains and savannas, support a variety of grazers like bison and zebras and predators like lions and cheetahs. These ecosystems are crucial for maintaining global carbon balance and providing habitat for diverse wildlife. The health of grasslands is essential for the survival of many species and the services they provide to humans and the environment. Temperate rainforests, with their towering trees and lush undergrowth, host unparalleled biodiversity. From the colorful fungi to the elusive jaguars of the Congo, these biomes teem with life at every level. Rainforests are crucial for global oxygen production and climate regulation.

Diagram 1: Grassland Ecosystem

Animals in an African grassland ecosystem include zebras, giraffes, and elephants, which graze on grasses and shrubs. Lions, cheetahs, and hyenas are the primary predators hunting these herbivores.

Temperate rainforests in regions with moderate climates offer a sense of tranquility. From the majestic redwoods of California to the ancient beech forests of Europe, these ecosystems harbor a variety of species and provide vital ecological services they provide. Similarly, temperate deciduous forests, with their changing seasons and diverse foliage, provide habitat for various species. These woodlands are a haven for hikers and nature enthusiasts. The survival of many species and the enjoyment of these natural spaces are ensured.

Diagram 2: Deciduous forest ecosystem

Deer, foxes, and squirrels forage for plants and nuts in a deciduous forest ecosystem, while owls, hawks, and snakes prey on smaller animals.

The taiga, or boreal forest, blankets the northern latitudes with coniferous trees amidst the silent snowdrifts and towering pines, creatures like wolves and moose. The taiga plays a critical role in global carbon storage and its frozen landscapes and resilient flora, is a testament to the tenacity of life. Hardy musk oxen of the Arctic to the elusive ptarmigans of the Antarctic, adaptation. Preserving the tundra is essential for maintaining biodiversity in these cold environments.

In summary, terrestrial biomes, from deserts and grasslands to rainforests, support diverse species and vital ecological functions. Understanding and protecting these ecosystems ensures biodiversity protection and the health of our planet's ecosystem.

Class: _____
Date: _____

different types of terrestrial biomes?

Notes

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Topics Included

Terrestrial Ecosystems

Freshwater Ecosystems

Marine Ecosystems

HOW TO USE THE RESOURCE IN

3 simple steps

1

Print the PDF version, make copies, and hand out to students

2

Use the digital version by clicking the titles in the RED BOX to make your own copy (found at the end of the PDF)

3

Share the resource with your students using your favorite LMS (Google Classroom, Powerschool (schoolology), Canva...)

Interactive Digital Flip Book

Teachers Guide

What You Will Need To Get Started:

1. Download link for the Google Resource by clicking on the titles in the red box

Cell Energy Digital Flip Book Student

Cell Energy Digital Flip Book Teacher

2. Access to the Internet and a Google Account (Free)
3. Google accounts or Microsoft OneDrive accounts for your students to save their work
4. Open the file on your Google Drive. The link will prompt you to make a copy

5. This new copy is now yours to edit and share with your students

6. Printer access if you choose to print the finished product as an actual flip book

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Life Science Bundle

Units

- ✓ Cells
- ✓ Genetics
- ✓ Evolution
- ✓ Ecosystems

Life Science

Big Idea Question: How can Punnett squares be used to predict the probable outcomes of offspring?

Diagram 1: When mice reproduce, there is a 50% chance of having a boy and a 50% chance of having a girl. Mice are known to have six to eight babies per litter and can have multiple litters in a year. Each time they have a baby, there is a 50% chance of having a boy and a 50% chance of having a girl. This does not mean that if they have six babies that will be boys and five girls and that will be girls. They could have five boys and one girl or five girls and one boy. The more babies they have, the closer the actual results will be to the predicted outcome. You can predict the possible results they have, the process by using a tool called a Punnett Square.

Diagram 2: A Punnett square is a tool that can show possible allele combinations of a genetic trait. A cross of a brown (BB) with a white (bb) will result in: BB - 100% brown - 100%.

Diagram 3: To make things easier, geneticists use two terms to describe the genotype of an organism. Diagram 3 shows a cross between two hybrid dominant allele and a recessive allele.

Labels: Digital and Print, Reading Passages, Notes, Worksheets, Task Cards.

Science Reading Comprehension questions and Worksheets

Adventures in ISTEM

Basic Types of Cells

Big Idea Question: What is the difference between prokaryotes and eukaryotes?

Diagram 1: Cells are the basic unit of living things. There are many different types of cells: blood cells, nerve cells, plant cells, bacteria, animal cells, just to name a few (diagram 1). All of the cells, however, fall into two main categories: prokaryote and eukaryote.

Diagram 2: Prokaryotes are the simplest and oldest of cells. The name prokaryote means no nucleus. Pro=before and kary=nucleus, so prokaryote means before nucleus. Even though they don't have a nucleus, they do have circular DNA, the genetic material that holds the blueprints for making more cells. Prokaryotes also have cell walls to protect them, ribosomes, and cytoplasm (diagram 2). Prokaryotic organisms are single-celled and extremely small. Examples of prokaryotes are bacteria and archaea.

Diagram 3: Eukaryotes are larger and more complex than prokaryotes. They have a nucleus that protects their DNA. In fact, the name eukaryote means after nucleus. Unlike prokaryotes, which have circular DNA, eukaryotes have linear DNA. Eukaryotes also have cell walls. However, eukaryotes also have organelles that perform specific functions. Examples of eukaryotes are plants, animals, and fungi.

Fossils

Fossils are like Earth's time capsules, preserving the remains or traces of ancient plants, animals, and other organisms. They give us valuable insights into life forms that existed long before humans, helping scientists reconstruct Earth's history. Fossil evidence supports evolution, the process by which different kinds of living organisms develop and diversify from earlier forms.

Fossils form through a process called fossilization (diagram 1). When an organism dies, its remains may be buried in mud, sand, or volcanic ash. Over time, more sediment layers pile on top, pressing down on the remains. Minerals from the sediment seep into the organic material, gradually turning it into rock, a process that can take thousands or even millions of years.

Diagram 1: How fossils are formed

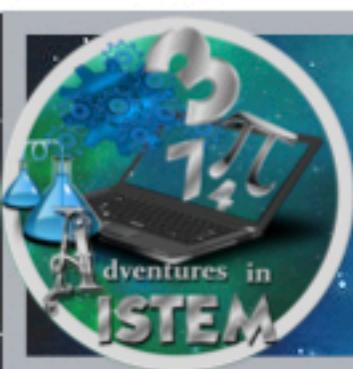
There are different types of fossils (diagram 2). Body fossils are the preserved physical parts of an organism, such as bones, teeth, shells, or even impressions of skin or feathers. These give us direct evidence of what ancient creatures looked like. Trace fossils are signs left behind by the behavior and activities of organisms. Petrified fossils occur when organic material in the remains gets replaced by minerals, turning the remains into stone-like structures and preserving intricate details of plants and animals. Mold and cast fossils are formed when the complex parts of an organism leave an impression in the surrounding material. Amber fossils occur when organisms are trapped in tree resin that hardens into amber. These fossils can preserve incredibly detailed and accurate features.

Diagram 2: Types of fossils

They help scientists study extinct species. For ocean giants we know where they no longer live, they tell us about mass extinctions. From ancient times to the present, the planet continues to change.

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“ Our biology teacher and I share a lot of the same students this semester, so finding reading activities I can sprinkle into my English classes is a blessing! We discuss the passages together as a class and talk through any confusion students may have on the science concepts, as well as discussing the writing elements of the passage. Highly recommend!- Laura ”



Free Sample

You can print the following pages for a free sample of what a science reading looks like and how you could use it in your classroom. Click the title in the red box for the digital version of the reading.

What You Will Need To Get Started:

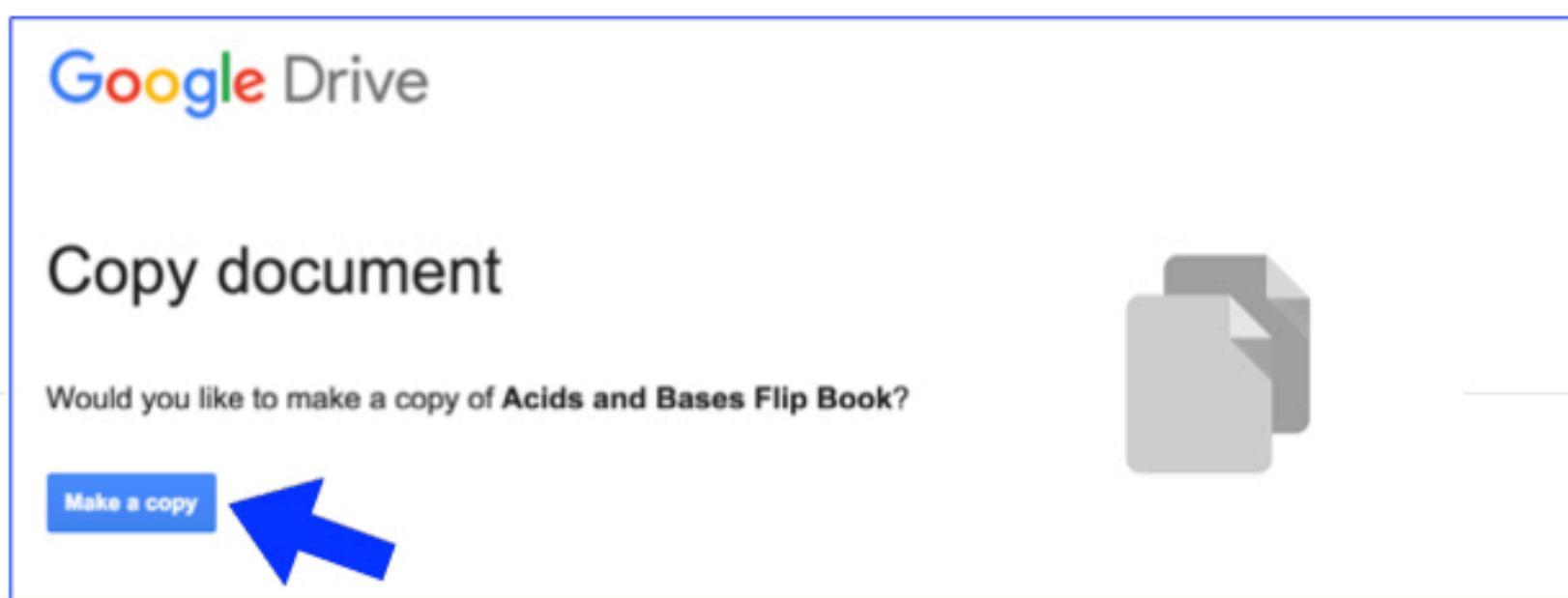
1. Download link for the Google Resource by clicking on the titles in the red box

Outer Planets Guided Reading Digital Notes

2. Access to the Internet and a Google Account (Free)

3. Google accounts or Microsoft OneDrive accounts for your students to save their work

4. Open the file on your Google Drive. The link will prompt you to make a copy



5. This new copy is now yours to edit and share with your students

6. Printer access if you choose to print the finished product as an actual flip book

Outer Planets

Big Idea Question: *Why are they called gas giants? What are some key characteristics?*

The outer solar system is made up of four gas giants. They are Jupiter, Saturn, Uranus, and Neptune. Since they are so far away from the Sun, they are able to hold onto their gas atmospheres and are made up mostly of gas but have solid rocky cores. Because they are so massive, they have a greater gravity than the terrestrial planets. They are also much colder than the terrestrial planets since they are so far away from the Sun. They also all have rings, and many planetary satellites.

Basic facts:

Jupiter: Largest planet in our solar system. Its mass is twice as much as the other seven planets combined. Now that's massive! It is made up mostly of hydrogen gas, and it is known for its massive storm—which is more like a hurricane that is the size of three Earths put together. Since it is made up of mostly gas, it is able to spin around pretty quickly. In one Earth day, Jupiter will have had three days. Now that's fast! It also has the most planetary satellites. To date, the number is at 67. It has the most gravity of all the planets.

Saturn: This planet is known for its many rings that circle it which are made of gas and ice. It is the least dense of all planets. In fact, if you put Saturn in a tub of water, it would actually float. It's amazing that something that massive could actually float. Crazy. Its atmosphere is mostly helium and hydrogen and its gravity pull could tear a comet apart if one got close enough.

Uranus: This planet does not reflect much light since it is so far from the sun. We know about it from our space probes that we sent out into space. The methane gas in its atmosphere is what gives it its greenish color. The rotation of Uranus is unique because it is so tilted it actually spins on its side. Its poles would be found in the same location as our equator, weird. This rotation causes one pole to be in complete darkness for half of its revolution. Could you imagine having night last half a year and a day lasting the other half?

Neptune: The outermost planet in the solar system. Its blue color is caused by its methane gas in its atmosphere. There is a hurricane-like storm that is the size of Earth. It has the fastest winds of any of the planets moving at more than 1,000 km/h (a high wind on Earth is considered 100km/hr).

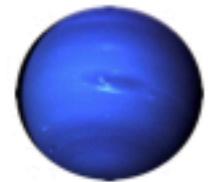
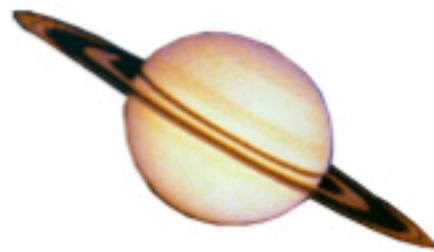
				
Distance from Sun	5 AU	9 AU	19 AU	30 AU
Rotation (day/night)	9 hours	10 hours	17 hours	16 hours
Revolution (year)	11 Earth years	29 Earth years	83 Earth years	163 Earth years
Diameter (size)	142,984 km	120,536 km	51,118 km	49,528 km
Density	1.33 g/cm ³	0.69 g/cm ³	1.27 g/cm ³	1.64 g/cm ³
Gravity	236% of Earth's	92% of Earth's	89% of Earth's	112% of Earth's
Planetary Satellites	67	62	27	14

The planet information is current as of April 2015

Outer Planets

1. Comparing the planets: Fill in the data table

	1	2	3	4
place the planets in order from closest to the Sun to furthest from the Sun				
place the planets in order from shortest day to longest day				
place the planets in order from shortest year to longest year				
place the planets in order from smallest size to largest size				
place the planets in order from least dense to most dense				
place the planets in order from least amount of planetary satellites to most amount of planetary satellites				



2. **Using Patterns:** Compare the number of planetary satellites to the diameter, location from the Sun, and the density. Which characteristic do you think has the most influence on how many planetary satellites an outer planet will have?

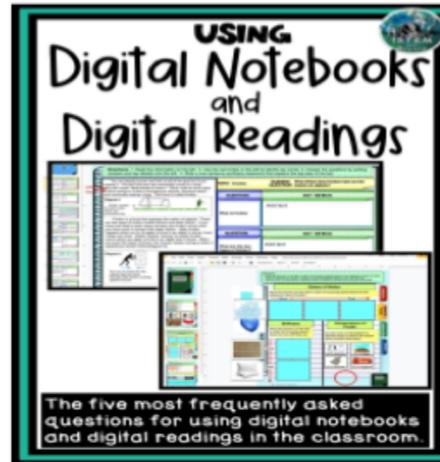
3. Why do you think the characteristic you choose in question 2 has more influence on the number of planetary satellites than the other characteristics? Explain.

4. Thinking beyond the table, what is another factor that could be influencing the number of planetary satellites the outer planets have? Explain.

Digital Resources

Using Digital Products?

If you are new to using digital lessons than I recommend to check out my blog post that contains the most frequently asked questions. Click the picture for the link.



I would also recommend checking out my Google Slide videos that demonstrate how to drag and drop pieces, write in the text boxes, add objects, and more. These are short videos that can easily be shared with students and parents. Click the picture for the link



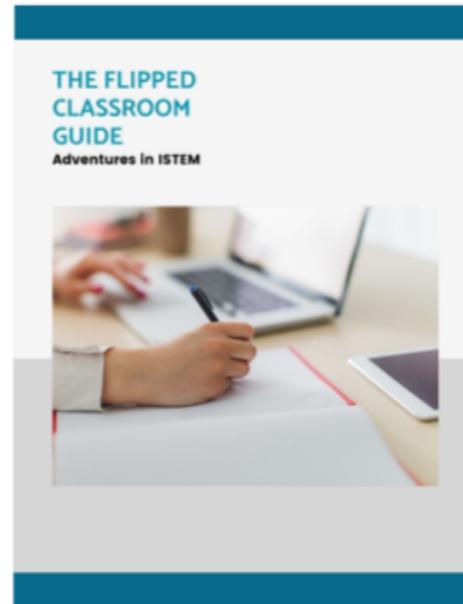
Thank You

Thank You for taking the time to visit my store and downloading one of my products. I hope you find this resource a useful tool for your classroom. I appreciate your support and look forward to your feedback.

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Grab the free guides (flipped classroom guide / 5E model guide) to help empower students and then receive weekly tips, strategies, ideas, and freebies delivered right to your inbox.



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Special Thanks

