Norfolk Public Schools
Science Learning in Place Plan: Science 7 Lessons

Week 10: May 18 – 22, 2020 (Classification and Evolution)

Monday	Tuesday	Wednesday	Thursday	Friday
Reading & Text Annotation: • Read the passage entitled, **"Classification of Living Things"** • Use *Critical Reading Strategies* to make note of the key points in the passage.	Concept Analysis: • Reread the passage entitled, **"Classification of Living Things"** • Use the graphic organizers on the worksheet entitled, **"Classification of Living Things Concept Analysis"** to ○ summarize the 3 domains and 6 kingdoms (part 1)	Concept Analysis: • Reread the passage entitled, **"Classification of Living Things"** • Use the graphic organizers on the worksheet entitled, **"Classification of Living Things Concept Analysis"** to ○ summarize the 8 levels to classify living things (part 2)	Reading & Text Annotation: • Read **"Explainer: The Theory of Evolution"** • Use *Critical Reading Strategies* to make note of the key points in the passage.	Concept Analysis: • Reread the passage entitled, **"Explainer: The Theory of Evolution"** • Answer the four questions of the quiz

Week 11: May 25 – 29, 2020 (Biomes & Ecosystems)

Monday	Tuesday	Wednesday	Thursday	Friday
Reading & Text Annotation: • Read the passage entitled, **"Earth's Biomes"** • Use *Critical Reading Strategies* to make note of the key points in the passage.	Reading & Concept Analysis: • Read the passage entitled, **"Home Sweet Biome"** • Complete the fill in the blank concept review	Reading & Concept Analysis: • Read the passage entitled, **"Life in a Biome"** • Complete the "Visualize It"	Reading & Concept Analysis: • Read the passage entitled, **"Nothing Stays the Same"** • Complete the "Visualize It"	Concept Analysis: • Examine the map on the page entitled, **"Moving to a New Biome Writing Assignment"** then write a 7-sentence paragraph

Week 12: June 1 – 5, 2020 (Populations & Communities and Human Interactions)

Monday	Tuesday	Wednesday	Thursday	Friday
Reading & Concept Analysis: • Read the passage entitled, **"Know Your Limits"** • Complete the "Visualize It" • Complete the "Active Reading"	Reading & Concept Analysis: • Read the passage entitled, **"Maximum Capacity"** • Complete the "Visualize It"	Reading & Concept Analysis: • Read the passage entitled, **"Teamwork"** • Complete the "Visualize It" • Complete the "Active Reading" • Complete the "Compare #18"	Reading & Concept Analysis: • Read the passage entitled, **"Living Together"** • Complete the "Compare #19" • Complete the "Inquiry"	Concept Analysis: • Complete the **"Visual Summary"** questions #19-22

CRITICAL READING *strategies*

Marking the Text

- # → Number the paragraphs
- → Circle key terms
- → Underline essential info
  (...based on the reading purpose)
- → Box new vocab words
  (...and define them in the margins)

Additional Ways to Mark the Text

- → [Bracket] information
  (when underlining has been used for another purpose)
- → Write labels in the margins
  (double underline labels to stand out from other marks)

Classification of Living Things

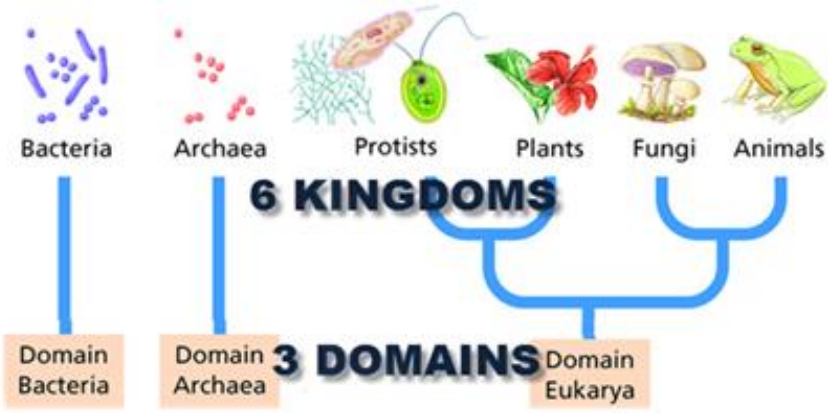
All living organisms are classified based on very basic, shared characteristics. Organisms within each group are then further divided into smaller groups. These smaller groups are based on more detailed similarities within each larger group. This grouping system makes it easier for scientists to study certain groups of organisms. Characteristics such as appearance, reproduction, mobility, and functionality are just a few ways in which living organisms are grouped together. These specialized groups are collectively called the classification of living things. The classification of living things includes 8 levels: domain, kingdom, phylum, classes, order, families, genus, and species.

Domain

When Linnaeus was naming and classifying organisms in the 1700s, almost nothing was known of microorganisms. With the development of powerful microscopes, scientists discovered many single-celled organisms that didn't fit into any of Linnaeus' kingdoms. As a result, a new taxon, called the domain, was added to the classification system. The domain is even broader than the kingdom. These domains are Archaea, Bacteria, and Eukarya. The Archaea Domain includes only the Archaea Kingdom, and the Bacteria Domain includes only the Bacteria Kingdom. The Eukarya Domain includes the Animal, Plant, Fungus, and Protist Kingdoms.

Kingdom

The most basic classification of living things is kingdoms. Currently there are five kingdoms. Living things are placed into certain kingdoms based on the presence or absence of cellular structures, such as the nucleus, mitochondria, or a cell wall; whether the organisms exist as single cells or are multicellular; how the organisms get their food.



Phylum

The phylum is the next level following kingdom in the classification of living things. It is an attempt to find some kind of physical similarities among organisms within a kingdom. These physical similarities suggest that there is a common ancestry among those organisms in a particular phylum.

Classes

Classes are way to further divide organisms of a phylum. As you could probably guess, organisms of a class have even more in common than those in an entire phylum. Humans belong to the Mammal Class because we drink milk as a baby.

Order

Organisms in each class are further broken down into orders. A taxonomy key is used to determine to which order an organism belongs. A taxonomy key is nothing more than a checklist of characteristics that determines how organisms are grouped together.

Families

Orders are divided into families. Organisms within a family have more in common than with organisms in any classification level above it. Because they share so much in common, organisms of a family are said to be related to each other. Humans are in the Hominidae Family.

Genus

Genus is a way to describe the generic name for an organism. The genus classification is very specific so there are fewer organisms within each one. For this reason, there are a lot of different genera among both animals and plants. When using taxonomy to name an organism, the genus is used to determine the first part of its two-part name.

Species

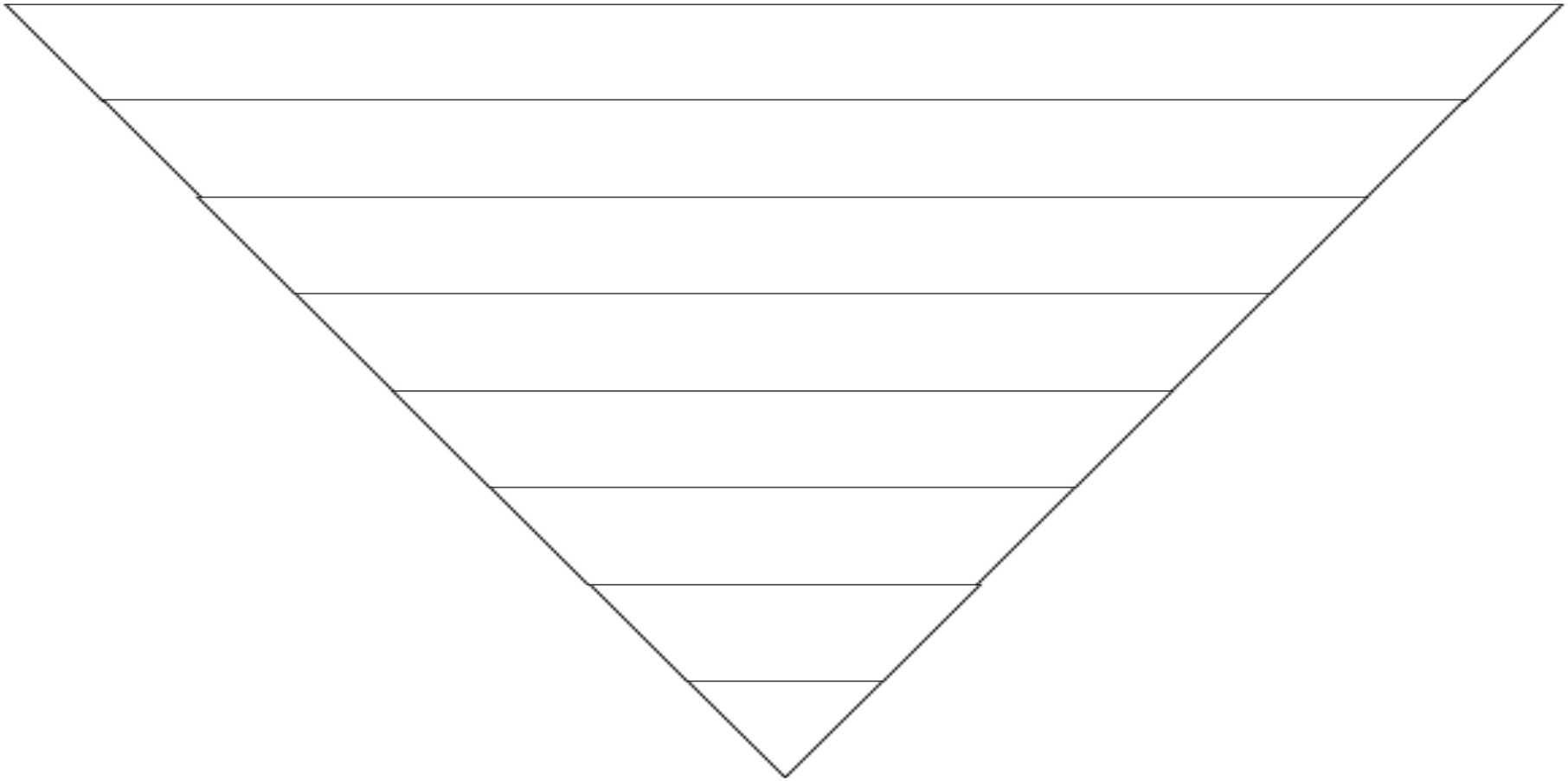
Species are as specific as you can get. It is the lowest and most strict level of classification of living things. The main criterion for an organism to be placed in a particular species is the ability to breed with other organisms of that same species. The species of an organism determines the second part of its two-part name.

Classification of Living Things Concept Analysis

Part 1 Directions:

(3) Domains						
(6) Kingdoms						

Part 2 Directions:



newsela

Explainer: The theory of evolution

By The Conversation, adapted by Newsela staff on 09.03.19
Word Count **1,026**
Level **570L**

Image 1. Blue footed boobies rest on volcanic rocks in the town of Puerto Villamil on Isabela island on January 21, 2019 in Galapagos Islands, Ecuador. Charles Darwin's research in the Galapagos inspired his theory of evolution by natural selection. Photo by: Chris J Ratcliffe/Getty Images for Lumix

The theory of evolution states that life on our planet has changed over long periods of time. It continues to change. That change happens according to a process. That process is known as natural selection.

Charles Darwin lived in the 1800s. He was a naturalist. That is a scientist who studies natural history. He is given credit for the theory of evolution. This is not because he was the first person to suggest that evolution happens. Rather, it's because he described how evolution works. He did this in his book, "On the Origin of Species."

The name, "the theory of evolution," contains two parts. Some people argue about both, which isn't necessary. The first part is the word "theory." Its meaning is different in the world of science than in everyday speech.

The second part is the word "evolution." Some people argue against evolution. They say that there is not enough evidence to believe it. Supporters of this view rely on the different meanings of the word "theory." That confuses the issues.

What Is A Theory?

When most people use the word "theory," what they mean is guesswork. This is the process of guessing. Someone might have a theory about why a football team lost. They have ideas about why the team lost. But this theory is based on guesswork.

When scientists use the word "theory," however, they aren't referring to guesswork. They are referring to the laws of nature. A theory is developed over many years. It takes detailed hypothesis testing. A hypothesis is an explanation based on evidence. Scientific theories are backed up with mathematical formulas. They are supported by evidence. All of this together explains observations.

Gravity is a fact. It sums up a number of observations. But different theories explain gravity. Newton's law is one theory. Einstein's theory of relativity is another. Even though there are different theories, everyone agrees that gravity exists.

Biological evolution is also a fact. It is backed up by lots of evidence. The evidence comes from many different fields of science. Because of all this, biological evolution is a fact, just like gravity. So the theory of evolution is not about whether or not it is true. The theory is about how it happens.

Our understanding of gravity has changed over time. In the same way, our understanding of the process of evolution has changed over time. It continues to change.

Natural Selection

There are two major parts to the theory of evolution: natural selection and the nature of inheritance. Let's look at natural selection first.

How natural selection works was proposed in 1858. Two British naturalists had each proposed the theory. They did this separately. Their names were Charles Darwin and Alfred Russel Wallace.

To understand natural selection, let's look at artificial selection. This is when humans make the selection. Animal breeders can do this. A breeder will select an animal. This animal will improve the outcome for the next generation. This could happen with cattle, horses or sheep. For example, the breeder would choose the best horse. Then, it can reproduce and have better horses in the next generation.

Natural selection is similar. Humans do not control it. It is a natural process of sorting living things. They are sorted out according to how well-adapted they are to their environment.

In artificial selection, humans decide on traits. Those will be the characteristics for future generations. How does natural selection decide? What does natural selection favor? It favors traits that increase the chance of survival and reproduction. These traits become more common in a population or species over time.

In the past, natural selection has been called "the survival of the fittest." This phrase does not represent the true meaning. It says the same thing twice. According to this, "the survival of the fittest" sounds like it means "the survival of those who survive." This is wrong.

The truth is that individuals don't survive. What survives is the process for making another individual. In other words, reproduction survives. This process is carried down through generations in the form of genes. A gene is made up of tiny sections of DNA. DNA contains the instructions for how our bodies grow and work. It is passed on from parents to children.

Natural selection focuses on the different rates of reproduction. Genes that code for desirable traits get selected. What's desirable about these genes? They improve a population's chances to reproduce. This improves a species' chances. Over time, individuals with favorable traits are more successful at reproducing. How individuals interact with their environment is also important. It provides a way for sorting out which traits will be passed on to the next generation.

Nature Of Inheritance

The second major part of the theory of evolution is the nature of inheritance. This is based on the insights made in 1865, by Gregor Mendel. He is the founder of genetics. The nature of inheritance has changed since then. It is much more advanced. Now we have a greater understanding of genes. We also understand DNA.

When Darwin and Wallace first wrote about natural selection, they did not understand the nature of inheritance. Now we do. Our understanding is very complex. It includes exact processes. We understand how genes get passed on. We also understand now how genes are changed by mutations. We know how genes are shared among species.

We can predict the change in the frequency of genes over time. This means we can predict how common a gene is in a population. We can tell how this will change over time. We do this using math formulas.

The change of gene frequencies is very small. It is a tiny change. But it is not too small to call it evolution. These small changes at the level of genes lead over time to large changes in organisms.

The sorting of genes affects populations. Populations drift apart. They become species. Species split off to create whole groups of plants or animals. These plants and animals control the landscape for millions of years.

All of these processes form a continuation. This continuation is the history of life on Earth.

Quiz

Explainer: The theory of evolution

1 One MAIN idea of the article is that biological evolution is a fact.

Which key detail from the section "What Is A Theory?" supports this MAIN idea?

(A) When most people use the word "theory," what they mean is guesswork.

(B) Scientific theories are backed up with mathematical formulas.

(C) The evidence comes from many different fields of science.

(D) In the same way, our understanding of the process of evolution has changed over time.

2 Read the paragraph from the introduction [paragraphs 1-4].

Charles Darwin lived in the 1800s. He was a naturalist. That is a scientist who studies natural history. He is given credit for the theory of evolution. This is not because he was the first person to suggest that evolution happens. Rather, it's because he described how evolution works. He did this in his book, "On the Origin of Species."

What is the MAIN idea of this paragraph?

(A) Charles Darwin explained how evolution works.

(B) Charles Darwin was the first person to discover evolution.

(C) Charles Darwin did not find enough evidence for the theory of evolution.

(D) Charles Darwin wrote a book called "On the Origin of Species."

3 Read the paragraph from the section "What Is A Theory?"

When scientists use the word "theory," however, they aren't referring to guesswork. They are referring to the laws of nature. A theory is developed over many years. It takes detailed hypothesis testing. A hypothesis is an explanation based on evidence. Scientific theories are backed up with mathematical formulas. They are supported by evidence. All of this together explains observations.

Fill in the blank.

A "theory" is ____.

(A) a scientific experiment

(B) a difficult math problem

(C) a fact proven by scientists

(D) a guess based on data

4 Read the selection from the section "Nature Of Inheritance."

The nature of inheritance has changed since then. It is much more advanced. Now we have a greater understanding of genes. We also understand DNA.

Which word could replace "greater" WITHOUT changing the meaning of the selection above?

(A) bigger

(B) better

(C) cooler

(D) kinder

Earth's Biomes

Biomes
A biome is a group of ecosystems with similar climates and organisms. **In fact, it is mostly the climate conditions—temperature and rainfall—in an area that determine its biome.**

A Biome's Climate
The climate limits distribution of plants. In turn, the types of plants determine the kinds of animals that live there.

The Plants & Animals of a Biome
The plants and animals found in a particular biome are adapted to the climate and to their niche in the ecosystem.

Earth's Biomes
1. Tropical Rain Forest
2. Temperate Rain Forest
3. Desert
4. Grassland - also known as Prairies and Savannas
5. Deciduous Forest
6. Boreal Forest - also known as Coniferous Forest
7. Tundra

Tropical Rain Forest
Tropical rain forests are warm and humid and are found near the equator. The tall trees form a leafy roof called a **canopy.** A second layer of shorter trees and vines form an **understory.**

Temperate Rain Forests
Temperate rain forests are found farther north. They also receive a lot of rain but are cooler than tropical rain forests.

Deserts
A **desert** is an area that receives less than 25 centimeters of rain each year. Deserts have large shifts in temperature during the day. Desert organisms are adapted to the lack of rain and to the extreme temperatures.

Grasslands
A **grassland** receives between 25 and 75 centimeters of rain each year and is populated by grasses. Grasslands that are located close to the equator are called **savannas.** Savannas receive as much as 120 centimeters of rain each year.

Deciduous Forests
The trees found in deciduous forests, called **deciduous trees,** shed their leaves and grow new ones each year. These forests receive at least 50 centimeters of rain each year. Temperatures vary during the year. Some of the mammals in deciduous forests enter a low-energy state similar to sleep, called **hibernation.**

Boreal Forests
Boreal forests contain **coniferous trees,** which produce their seeds in cones and have leaves shaped like needles. Winters are long, very cold, and snowy. Summers are rainy and warm enough to melt all the snow.

Tundra
The **tundra** is extremely cold and dry, often with no more precipitation than a desert. Most of the soil is frozen all year long. The frozen soil is called **permafrost.** Plants include low-growing mosses, grass, and shrubs.

Freshwater Biomes
Freshwater biomes include ponds, lakes, streams, and rivers. **Because water absorbs sunlight, there is only enough light for photosynthesis near the surface or in shallow water.** Algae are the most common producers in freshwater biomes.

Earth's Oceans
The ocean has different zones. An **estuary** is found where the fresh water of a river meets the salt water of the ocean. The part of the shore between the highest high-tide line and the lowest low-tide line is called the **intertidal zone.** Below the low-tide line is the **neritic zone,** a region of shallow water over the continental shelf. Floating algae are the producers in most open-ocean food webs. Below the open ocean's **surface zone** is the **deep zone**, which is completely dark.

Home Sweet Biome

What is a biome?

If you could travel Earth from pole to pole, you would pass through many different biomes. A **biome** is a region of Earth where the climate determines the types of plants that live there. The types of plants in a biome determine the types of animals that live there. Deserts, grasslands, tundra, taiga, temperate forests, and tropical forests are all types of biomes.

What makes one biome different from another?

Each biome has a unique community of plants and animals. The types of organisms that can live in a biome depend on the biome's climate and other abiotic, or nonliving, factors.

Climate

Climate is the main abiotic factor that characterizes a biome. Climate describes the long-term patterns of temperature and precipitation in a region. The position of a biome on Earth affects its climate. Biomes that are closer to the poles receive less annual solar energy and have colder climates. Biomes that are near the equator receive more annual solar energy and have warmer climates. Biomes that are close to oceans often have wet climates.

The taiga is a northern latitude biome that has low average temperatures, nutrient-poor soil, and coniferous trees.

Directions: Read page 482 of your textbook to complete each statement.

- _____ determines the types of plants that live in a biome.
- _____ determines the types of animals that live in a biome.
- The six (6) types of biomes are: _____

_____

_____

- Climate is the main _____ factor that characterizes a biome.

Life in a Biome

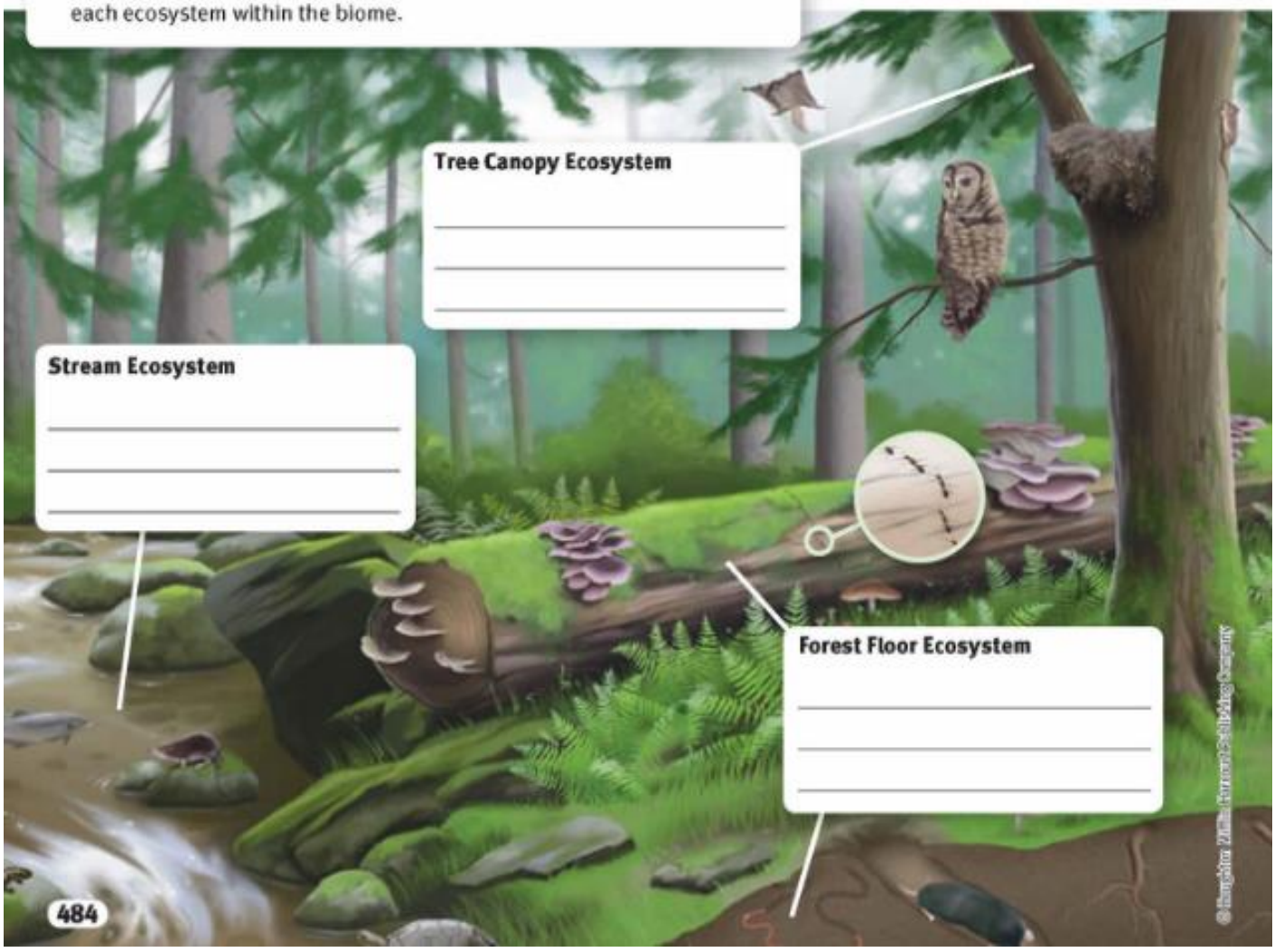
How are ecosystems related to biomes?

Most biomes stretch across huge areas of land. Within each biome are smaller areas called ecosystems. Each *ecosystem* includes a specific community of organisms and their physical environment. A temperate forest biome can contain pond or river ecosystems. Each of these ecosystems has floating plants, fish, and other organisms that are adapted to living in or near water. A grassland biome can contain areas of small shrubs and trees. These ecosystems have woody plants, insects, and nesting birds.

Visualize It!

Three different ecosystems are shown in this temperate rain forest biome. Different organisms live in each of these ecosystems.

8 Identify List three organisms that you see in the picture that are part of each ecosystem within the biome.



Nothing Stays the Same

How quickly do ecosystems change?

Ecosystems and organisms are constantly changing and responding to daily, seasonal, and long-term changes in the environment. Most ecosystem changes are gradual. Some are sudden and irregular.

Active Reading **5 Describe** As you read, underline one example of a slow change and one example of a sudden change in an ecosystem.

Ecosystems May Change Slowly

Some changes happen slowly. Over time, a pond can develop into a meadow. **Eutrophication** (yoo•trohf•ih•KAY• shuhn) is the process in which organic matter and nutrients slowly build up in a body of water. The nutrients increase the growth of plants and microorganisms. When these organisms die, decaying matter sinks to the bottom of the pond. This organic matter can eventually fill the pond and become soil that grasses and other meadow plants can grow in.

Ecosystem changes can also be caused by seasonal or long-term changes in climate.

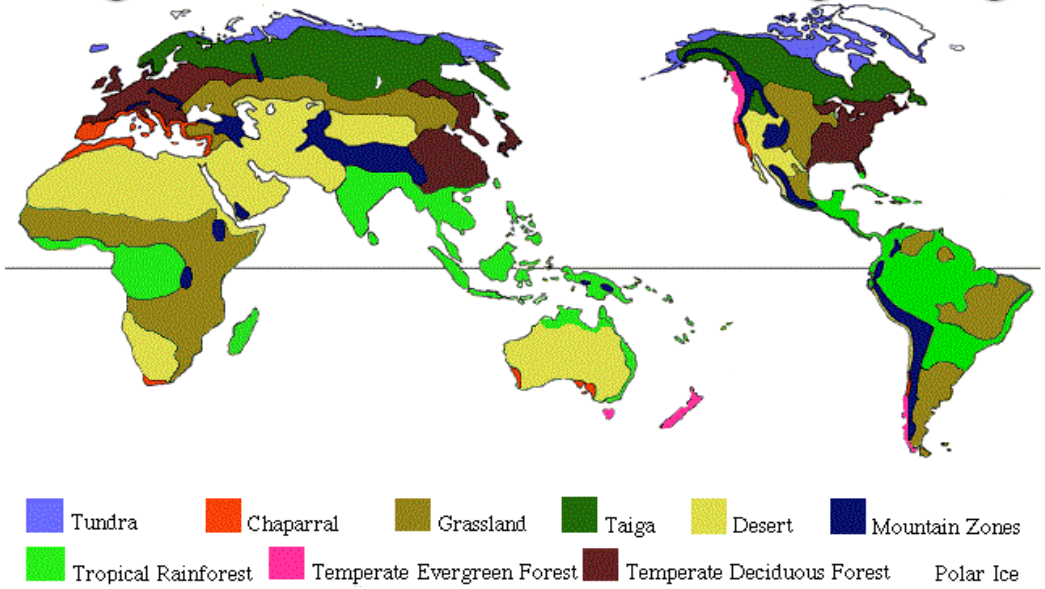
Ecosystems May Change Suddenly

Ecosystems can suddenly change due to catastrophic natural disturbances. A hurricane's strong winds can blow down trees and destroy vegetation in a few hours. Lightning can start a forest fire that rapidly clears away plants and alters animal habitats. A volcano, such as Washington's Mount St. Helens, can erupt and cause massive destruction to an ecosystem. But destruction is not the end of the story. Recovery brings new changes to an ecosystem and the populations that live in it.

Visualize It! Inquiry

6 Hypothesize What natural ecological change might happen to the meadow that forms where the pond was?

Moving to a New Biome Writing Assignment



Directions: Norfolk, VA is in a deciduous forest, but you have an opportunity to live in another biome. Which biome would you like to live in and why? What would you eat? What adaptations would you need in order to survive? Write a 7-sentence paragraph to explain answer these questions.

Know Your Limits

What environmental factors influence population size?

A tropical rain forest can support large populations of trees. A desert, however, will probably support few or no trees. Each environment has different amounts of the resources that living things need, such as food, water, and space.

Resource Availability

The amount of resources in an area influences the size of a population. If important resources are lost from the environment, a population may shrink. The population may grow if the amount of resources in the environment is increased. But if the population continues to grow, the individuals would eventually run out of resources. The **carrying capacity** is the maximum number of individuals of one species that the environment can support. For example, the carrying capacity, or the number of owls that a forest can support, depends on how many mice are available to eat and how many trees are available for the owls to live in.

Deforestation causes a sudden change in resource availability.

Visualize It!

8 Identify Make a list of each population in the image that would be affected by drought.

Animals use plants as food and shelter. Plants depend on sunlight and water as resources.

Changes in the Environment

The carrying capacity can change when the environment changes. For example, after a rainy season, plants may produce a large crop of leaves and seeds. This large amount of food may allow an herbivore population to grow. But what if important resources are destroyed? A population crash occurs when the carrying capacity of the environment suddenly drops. Natural disasters, such as forest fires, and harsh weather, such as droughts, can cause population crashes. The carrying capacity can also be reduced when new competitors enter an area and outcompete existing populations for resources. This would cause existing populations to become smaller or crash.

Active Reading **9 Describe** What are two ways in which the environment can influence population size?

Drought slowly reduces the amount of water available as a resource to different populations.

Think Outside the Book

10 Apply With a classmate, discuss how the immigration of new herbivores might affect the carrying capacity of the local zebra population.

Maximum Capacity

What factors can limit population size?

A part of the environment that keeps a population's size at a level below its full potential is called a **limiting factor**. Limiting factors can be living or nonliving things in an environment.

Abiotic Factors

The nonliving parts of an environment are called *abiotic factors*. Abiotic factors include water, nutrients, soil, sunlight, temperature, and living space. Organisms need these resources to survive. For example, plants use sunlight, water, and carbon dioxide to make food. If there are few rocks in a desert, lizard populations that use rocks for shelter will not become very large.

Biotic Factors

Relationships among organisms affect each one's growth and survival. A *biotic factor* is an interaction between living things. For example, zebras interact with many organisms. Zebras eat grass, and they compete with antelope for this food. Lions prey on zebras. Each of these interactions is a biotic factor that affects the population of zebras.

Inquiry

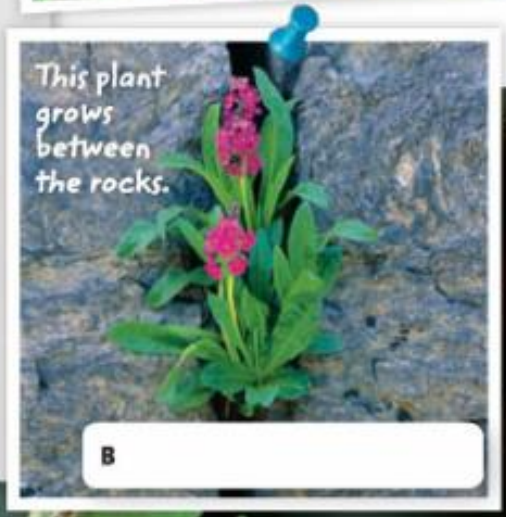
11 Apply Think about how people limit the populations of pests such as insects and mice. List one abiotic factor and one biotic factor that humans use to limit these pest populations.

Abiotic _____

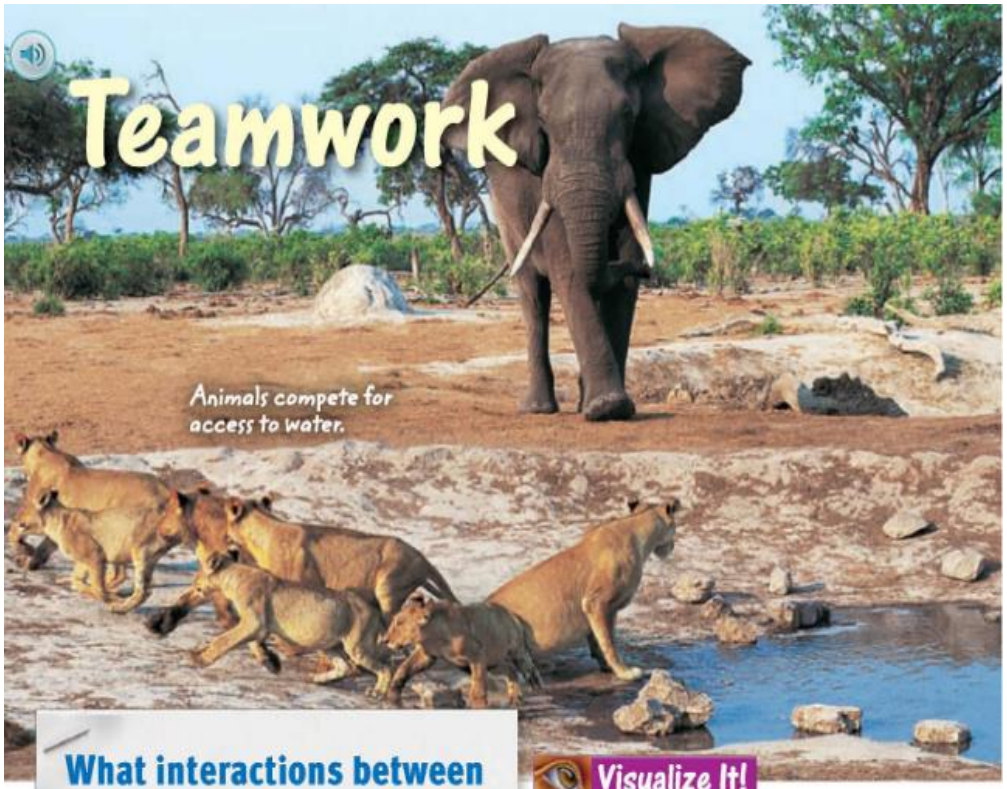
Biotic _____

Visualize It!

12 Identify Label each of the following factors that limits plant population growth as abiotic or biotic.



Teamwork



Animals compete for access to water.

What interactions between organisms can influence population size?

As living things try to gather the resources they need, they often interact with each other. Sometimes interactions help one individual and harm another. At other times, all of the organisms benefit by working together.

Competition

When two or more individuals or populations try to use the same limited resource, such as food, water, shelter, space, or sunlight, it is called **competition**. Competition can happen among individuals within a population. The elk in a forest compete with each other for the same food plants. This competition increases in winter when many plants die. Competition also happens among populations. For example, different species of trees in a forest compete with each other for sunlight and space.

Visualize It!

16 Predict The image above shows individuals from two populations competing for access to water.

What would happen to the size of the lion population if elephants usually won this competition?

What would happen to each population if lions usually won this competition?

Active Reading **17 Identify** As you read, underline how cooperation can influence population dynamics.

Cooperation

Cooperation occurs when individuals work together. Some animals, such as killer whales, hunt in groups. Emperor penguins in Antarctica stay close together to stay warm. Some populations have a structured social order that determines how the individuals work with each other. For example, ants live in colonies in which the members have different jobs. Some ants find food, others defend the colony, and others take care of the young. Cooperation helps individuals get resources, which can make populations grow.

18 Compare Make an analogy between an ant colony and a sports team. How does each group work together to achieve a goal?

These ants cooperate to protect aphids that produce a substance that ants eat.

Living Together

What are the types of symbiotic relationships?

A close long-term relationship between different species in a community is called **symbiosis** (sim•bee•OH•sis). In symbiosis, the organisms in the relationship can benefit from, be unaffected by, or be harmed by the relationship. Often, one organism lives in or on the other organism. Symbiotic relationships are classified as mutualism, commensalism, or parasitism.

Active Reading **9 Identify** As you read, underline examples of symbiotic relationships.

Mutualism

A symbiotic relationship in which both organisms benefit is called **mutualism**. For example, when the bee in the photo drinks nectar from a flower, it gets pollen on its hind legs. When the bee visits another flower, it transfers pollen from the first flower to the second flower. In this interaction, the bee is fed and the second flower is pollinated for reproduction. So, both organisms benefit from the relationship. In this example, the mutualism benefits the bee and the two parent plants that are reproducing.

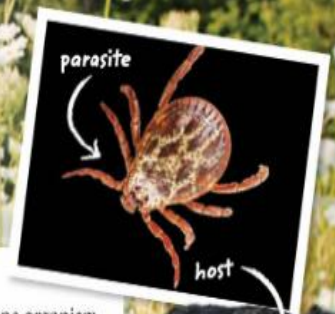
Commensalism

A symbiotic relationship in which one organism benefits while the other is unaffected is called **commensalism.** For example, orchids and other plants that often live in the branches of trees gain better access to sunlight without affecting the trees. In addition, the tree trunk shown here provides a living space for lichens, which do not affect the tree in any way. Some examples of commensalism involve protection. For example, certain shrimp live among the spines of the fire urchin. The fire urchin's spines are poisonous but not to the shrimp. By living among the urchin's spines, the shrimp are protected from predators. In this relationship, the shrimp benefits and the fire urchin is unaffected.

10 Compare How does commensalism differ from mutualism?

Think Outside the Book Inquiry

12 Predict Observe and take notes about how the organisms in your area interact with one another. Imagine what would happen if one of these organisms disappeared. Write down three effects that you can think of.



Parasitism

A symbiotic relationship in which one organism benefits and another is harmed is called **parasitism** (PAR•uh•sih•tiz•uhm). The organism that benefits is the *parasite*. The organism that is harmed is the *host*. The parasite gets food from its host, which weakens the host. Some parasites, such as ticks, live on the host's surface and feed on its blood. These parasites can cause diseases such as Lyme disease. Other parasites, such as tapeworms, live within the host's body. They can weaken their host so much that the host dies.

11 Summarize Using the key, complete the table to show how organisms are affected by symbiotic relationships.

Symbiosis	Species 1	Species 2
Mutualism	+	
	+	0
Parasitism		

Key + organism benefits
0 organism not affected
– organism harmed

Visual Summary

To complete this summary, fill in the blanks with the correct word or phrase. Then, use the key below to check your answers. You can use this page to review the main concepts of the lesson.

Organisms interact in feeding relationships.

19 *Predators eat* ______________________

Organisms interact in symbiosis—very close relationships between two species.

Mutualism:
Commensalism:
Parasitism:

20 *A parasite gets nourishment from its* ______________________

Interactions
in Communities

Organisms interact in competition.

21 *Organisms compete for resources such as* ______________________

Competition can occur between:

Members of the same species

Members of different species

Answers: 19 prey; 20 host; 21 food, mates, shelter, and water

22 Synthesize Explain how interactions can be both beneficial and harmful to the organisms in a community.