SHELL EDUCATION

# Leveled Texts for Science

## Life Science

Full-color Teacher Resource CD

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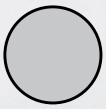
# How to Use This Product

## Readability Chart

| Title of the Text |  Star |  Circle |  Square |  Triangle |
|---|---|---|---|---|
| Reproduction | 2.0 | 3.2 | 4.9 | 6.5 |
| Genetics | 2.2 | 3.5 | 5.0 | 6.7 |
| Mitosis | 1.9 | 3.2 | 4.6 | 6.5 |
| Cells | 2.2 | 3.2 | 5.0 | 6.7 |
| Body Fuel | 2.2 | 3.3 | 4.9 | 6.5 |
| Systems for Movement | 2.2 | 3.2 | 5.2 | 7.1 |
| Safety Systems | 1.9 | 3.4 | 4.9 | 6.7 |
| Hippocrates | 2.2 | 3.4 | 5.2 | 6.5 |
| Microscopic Behavior | 2.0 | 3.5 | 5.1 | 6.6 |
| Biomes | 2.1 | 3.3 | 5.2 | 6.7 |
| Ecosystems | 1.8 | 3.4 | 5.0 | 6.5 |
| Rachel Carson | 2.0 | 3.2 | 5.0 | 6.5 |
| Ecosystem Energy Exchange | 2.1 | 3.4 | 4.5 | 6.9 |
| Cladism | 2.2 | 3.1 | 5.2 | 6.9 |
| Taxonomy | 2.2 | 3.4 | 4.8 | 6.5 |

## Components of the Product

### Primary Sources

- Each level of text includes multiple primary sources. These documents, photographs, and illustrations add interest to the texts. The scientific images also serve as visual support for second-language learners. They make the texts more context rich and bring the texts to life.

# Biomes

There are many kinds of life on Earth. There are many plants. There are many animals. They live in many places. These places are called biomes. Each biome has its own conditions. Some are cold. Some are hot. Some are wet. Some are dry. These conditions make good homes for the plants and animals that live there.

## Tundra and Taiga

At the top of the world, the weather is very cold. This biome is called tundra. Strong, cold winds sweep across the flat tundra. The top layer of soil freezes in winter. Then it thaws in the summer. Below that is a layer called permafrost. This soil is frozen all year round. Permafrost keeps water from draining. This creates ponds and bogs. Trees cannot grow in the tundra. Their roots cannot get past the permafrost. Smaller plants grow there. There are grasses, lichens, and mosses. They are eaten by voles and caribou. They are eaten by wolves, polar bears, and snowy owls.

Just south of the tundra is the largest land biome. It is called taiga. The taiga covers much of Canada, Russia, and China. Winters are long and cold. Summers are short and cool. Evergreen trees can grow in the taiga. They do not lose their leaves in the winter. Animals that need trees can live in taiga, too. Birds nest in the trees. Deer hide in the shade.

## Forests, Grasslands, and Deserts

If you go south, the weather warms up. There are four seasons, not just two. This is the temperate forest. Some trees and shrubs here have learned a neat trick. They lose their leaves each fall. The leaves gather lots of sunlight during the spring and summer. The plants store the energy. Then in the winter the plants get rid of their leaves. They don't need them. They use the stored up energy. Plants that shed their leaves are called deciduous. Maple, beech, and oak trees use this trick. Deer, raccoons, foxes, rabbits, and squirrels live here. They make their homes in and under these trees.

The grassland biome has hot, dry summers. It has mild, wet winters. It can be found on almost all of the continents on Earth. Only Antarctica doesn't have any grassland. Zebras and giraffes live on the grasslands in Africa. Buffalo once lived on the North American plains. They are grasslands, too. There are evergreen bushes here. They never grow over ten feet tall. In some places, they grow very close. It's hard to pass through.

Some places on Earth hardly ever get rain. Mountains block the winds. No rain clouds come. The land is dry. This biome is called desert. Most deserts are hot. During the day, the sun heats up the land. It may reach 50 °C (121 °F) in the shade! Then at night, it gets cold. It gets close to freezing. Desert plants have ways to live in these harsh conditions. Some have long roots that seek water. Others, such as cacti, store water in their stems. Their sharp needles keep the water safe from animals.

## Comprehension Question

How are the desert biome and the tundra biome different?

# Biomes

There are many kinds of life on Earth. Different plants and animals live in different places. These places are called biomes. Each biome has its own conditions. Some are cold, and some are hot; some are wet, and some are dry. The conditions in each biome determine which plants and animals can live there.

## Tundra and Taiga

At the top of the world, the weather is very cold. This biome is called the tundra. Strong, cold winds sweep across the flat tundra. The top layer of soil freezes in winter and thaws in the summer. Below that is a layer called permafrost. This soil is frozen all year round. Permafrost keeps water from draining. This creates ponds and bogs. Trees cannot grow in the tundra. Their roots cannot get past the permafrost. Instead, there are grasses, lichens, and mosses. They are eaten by voles and caribou. They are eaten by wolves, polar bears, and snowy owls.

Just south of the tundra is the largest land biome. It is called the taiga. The taiga covers much of Canada, Russia, and China. Winters are long and cold. Summers are short and cool. Evergreen trees can grow in the taiga. They do not lose their leaves in the winter. Animals that need trees can live in taiga, too. Birds nest in the trees. Deer hide in the shade.

## Forests, Grasslands, and Deserts

A little farther south, the weather warms up. There are four seasons instead of just two. This is the temperate forest. Some trees and shrubs in the temperate forest have learned a neat trick. They lose their leaves each fall. The leaves are used to gather lots of sunlight during the spring and summer. The plants store the energy and use it through the winter. They get rid of their leaves when they don't need them. Plants that shed their leaves are called deciduous. Maple, beech, and oak trees are common examples. Deer, raccoons, foxes, rabbits, and squirrels make their homes in these forests.

The grassland biome is found in areas with hot, dry summers and mild, wet winters. It can be found on every continent except for Antarctica. In Africa, zebras and giraffes graze on the grasslands. Buffalo once lived on the North American plains. They are grasslands, too. Grasslands have evergreen bushes. They never grow over ten feet tall. In some places, these shrubs grow very close. It's hard to pass through the area.

Some places on Earth hardly ever get rain. Mountains block the winds that bring rain clouds, and the land is dry. This biome is called desert. Most deserts are hot. During the day, the sun scorches the land. It may reach 50 °C (121 °F) in the shade! Then at night, the temperature drops close to freezing. Desert plants have adapted to these harsh conditions. Some have long water-seeking roots. Others, such as cacti, store water in their stems and roots. Their sharp needles keep animals from getting too much of this water.

## Comprehension Question

Describe the biomes in the passage.

# Biomes

There is a fantastic diversity of life on Earth. All the different plants and animals live in different places. These places are called biomes. Each biome has different conditions: cold or hot, wet or dry. The conditions in each biome determine which plants and animals can live there.

## Tundra and Taiga

At the top of the world, the weather is incredibly cold. This biome is called tundra. Strong, cold winds sweep across the flat tundra. The top layer of soil freezes in winter and thaws in the summer. Below that is a layer called permafrost, which is permanently frozen. Permafrost keeps water from draining, creating ponds and bogs. Trees cannot grow in the tundra. Their roots cannot get past the permafrost. Instead, tundra regions grow grasses, lichens, and mosses. Tundra animals include voles, caribou, wolves, polar bears, and snowy owls.

Just south of the tundra is the largest land biome: taiga. The taiga covers much of Canada, Russia, and China. Winters are long and cold, and summers are short and cool. Taiga support evergreen trees, which do not lose their leaves in the winter. Animals that need trees can live in taiga, too. Birds nest in the trees and deer hide in the shade.

## Forests, Grasslands, and Deserts

A little farther south, the weather is warmer, with four seasons instead of just two. This is the temperate forest. Some trees and shrubs in the temperate forest have learned a neat trick: they lose their leaves each fall. The leaves are used to gather sunlight during the spring and summer. Each plant stores the energy and uses it through the winter, getting rid of the leaves when it doesn't need them. Plants that shed their leaves are called deciduous. Maple, beech, and oak trees are common examples. Deer, raccoons, foxes, rabbits, and squirrels make their homes in these forests.

The grassland is a biome found in areas with hot, dry summers and mild, wet winters. Every continent has them, except for Antarctica. In Africa, zebras and giraffes graze on the grasslands. Buffalo once lived on the North American plains, which are grasslands. Grasslands have evergreen bushes that never grow over 10 feet tall. In some places, these shrubs grow so close together that it's hard to pass through the area.

Some places on Earth hardly ever get rain because mountains block the winds that bring rain clouds. This dry biome is called desert. During the day, the sun scorches the land, bringing the temperature to 50 °C (121 °F) in the shade! Then at night, the temperature drops close to freezing. Desert plants have adapted to these harsh conditions. Some have long water-seeking roots while others, such as cacti, store water in their stems and roots. Their sharp needles keep animals from getting too much of this water.

## Comprehension Question

Compare and contrast two biomes from the passage.

# Biomes

There is a fantastic diversity of life on Earth. All the different species of plants and animals live in different places called biomes. Each biome has different conditions: cold or hot, wet or dry. The conditions in each biome determine which plants and animals can live there.

## Tundra and Taiga

At the extreme north of the world in the tundra biome the weather is incredibly cold. Strong, cold winds sweep across the flat tundra. The top layer of soil freezes in winter and thaws in the summer; below that is a permanently frozen layer called permafrost. Permafrost keeps water from draining, creating ponds and bogs. Trees cannot grow in the tundra because their roots cannot get past the permafrost. Instead, tundra regions grow grasses, lichens, and mosses. Tundra animals include voles, caribou, wolves, polar bears, and snowy owls.

Just south of the tundra is the largest land biome: taiga, which covers much of Canada, Russia, and China. Its devastating winters are interminable and cold, while its summers are brief and cool. Taiga support evergreen trees, which do not lose their leaves in the winter. Animals that need trees can live in taiga, too: birds nest in the trees and deer hide in the shade.

## Forests, Grasslands, and Deserts

A little farther south in the temperate forest, the warmer weather supports four seasons instead of just two. Some of the temperate forest's trees and shrubs have developed a neat trick: they lose their leaves annually. The leaves gather sunlight during the spring and summer using photosynthesis. Each plant stores the energy for the winter, discarding its leaves when it doesn't need them. Plants that shed their leaves are called deciduous. Maple, beech, and oak trees are common examples. Deer, raccoons, foxes, rabbits, and squirrels make their homes in these forests.

The grassland is a biome found in areas with hot, dry summers and mild, wet winters. Every continent has them, except for Antarctica. In Africa, zebras and giraffes graze on the grasslands. Buffalo once lived on the North American plains, which are grasslands. Grasslands have evergreen bushes that never grow over 10 feet tall. In some places, these shrubs grow so close together that it's hard to pass through the area.

The dry desert biome hardly ever gets rain because mountains block the winds that bring rain clouds. During the day, the sun scorches the land, bringing the temperature to 50 °C (121 °F) in the shade! Then at night, the temperature drops close to freezing. Desert plants have adapted to these harsh conditions. Some have long water-seeking roots while others, such as cacti, store water in their stems and roots. Their sharp needles prevent animals from getting too much of this water.

## Comprehension Question

Describe the differences between any two biomes in the passage.