




BIOMES

Biology Standard

- **Standard 5.0** - The student will investigate the diversity of organisms by analyzing taxonomic systems, exploring diverse environments, and comparing life cycles.
- **Learning expectation**  **5.2**- infer the types of organisms native to specific major biomes
- **Performance indicator level 1** - Infer animals or plants indigenous to an environment, given pictures or diagrams of the organisms and a description of the environment.



Why Would This Standard Be Hard to Teach?

- Each Biome's characteristics contains a great deal of information
- Some biomes share similar plant and animal life
- This may be the first time some students are exposed to the terminology



What is a Biome?

- A Biome is a large community of plants and animals that occupies a distinct region
- The plants and animals that live in a specific biome are **physically well adapted for that area.**
- Plants and animals that live in a specific biome share similar characteristics with other plants and animals in that biome throughout the world.



Biome?

- The types of biomes that will be explored during this exercise include: **Tundra, Deserts, Grasslands, Taiga, Temperate Forests, and Rainforests**



EXIT

World Biomes

Click on the Biome you wish to explore



Tundra



Temperate Forest



Desert



Taiga



Rainforest



Grassland

Biome Activity

Go to Specific Activity Question

Click on the Question you wish to go back to





Moose



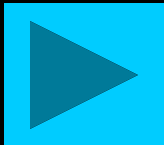
Taiga



**Eurasian
Beaver**



- **Location:** **Canada, Europe, Asia, and the United States**
- **Description:** **Also known as “Coniferous forests.”** Taiga regions have cold, long, snowy winters, and warm, humid summers; well-defined seasons
- **Plants:** Coniferous-evergreen trees (trees that produce cones needles). The trees are narrow and grow very close together. This is so they can help protect each other from the weather. There are also moss, lichen, and other species of plants that live in the Taiga’s bogs.
- **Animals:** Snow, cold, and a scarcity of food make life very difficult, especially in the winter. Some taiga animals migrate south, others go into hibernation, while others simply cope with the environment.



[Click here to see more examples of taiga animals and plants](#)



EXIT

More Taiga Animals and Plants



Lynx



Wolverine



Red Throated Loon



Hemlock



Larch Needles



Lichen growing on a tree

<https://www.brainpop.com/science/earthsystem/taiga/>



EXIT



**White Tailed
Deer**



Temperate Forest



Raccoon

- **Location:** Eastern United States, Canada, Europe, China, and Japan
- **Description:** Temperate forests go through four distinct seasons. Leaves change color in autumn, fall off in the winter, and grow back in the spring. This adaptation allows plants to survive the cold winters.
- **Plants:** Broadleaf trees (oak, maple, beech), shrubs, and mosses
- **Animals:** Animals living within this biome must adjust to cold winters and hot summers by hibernating, migrating, or keeping active all winter.



[Click here to see more examples of Temperate Forest Plants and Animals](#)

EXIT

More Temperate Forest Plants and Animals



Grey Squirrel



Black Bear



Wild Turkey



Oak



American Beech



Maple



EXIT



Gila Monster



Desert



Sidewinder

• **Location:**

North & South America, Africa, Middle East, Australia, and Asia

• **Description:**

Extremely hot and dry (less than 10 inches of rain a year). Some deserts can be cold at night (40s or 50s)

• **Plants:**

Cacti, small bushes, and short grasses. Desert plants are adapted to collect and store water, and/or reduce water loss.

• **Animals:**

Animals in this biome must adapt to intense heat and lack of water. Some animals never drink water, instead they get water from the seeds and plants that they consume. Many animals are nocturnal so that they do not have to combat the sun's heat.



[Click here to see more examples of Desert plants and animals](#)

EXIT

More Desert Plants and Animals



**Lappet Faced
Vulture**



Thorny Devil



Cactus Wren



Hairy Old Man Cactus



**Saguaro
Cactus**



Prickly Pear Cactus

<https://www.brainpop.com/science/earths/system/deserts/>



EXIT



American Bison



Grasslands



Zebra

- **Location:**
- **Description:**

Every continent except Antarctica
Grasslands are big open spaces. There are not many bushes in the grassland. Trees are found only by rivers and streams.

- **Plants:**
- **Animals:**

Grasses (prairie clover, salvia, oats, wheat, barley, coneflowers)

Many large herds of grazing animals such as zebras or bison. Animals live in herds for protection, because there are few trees and bushes to camouflage themselves.



[Click here to see more Grassland plants and animals](#)

EXIT

More Grassland Plants and Animals



Brown Hyena



Giraffe



Black tailed prairie dog



Coneflower



Wheat Grass



Salvia



<https://www.brainpop.com/science/earth/system/savanna/>

EXIT



Green Winged Macaw

- **Location:** Near the equator between the Tropic of Cancer and the Tropic of Capricorn. **South America, Asia, Pacific Islands, Australia, New Zealand, and Africa**
- **Description:** Two types of rainforests, tropical and temperate. Several varieties of exotic plants and animals. Lush greens and vibrant colors.
- **Plants:** **Vines, palm trees, orchids, ferns.** Most plants must compete for sunlight and nutrients due to their dense population. The majority of common houseplants come from the rainforest.
- **Animals:** Life inside the wet tropical rainforest is bustling with slithering snakes and chirping birds. An animal must be both smart and strong to survive in this environment.

Jungle Python

[Click here to see more examples of Rainforest Plants and Animals](#)



EXIT

More Rainforest Plants and Animals



Flying Dragon



Chimpanzee



Capybara



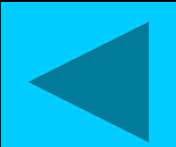
Bamboo



Banana Tree



Orchid



EXIT



Arctic Fox

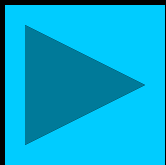


Tundra



Polar Bear

- **Location:** Regions south of the ice caps in the Arctic. In North America, Europe, and Siberia.
- **Description:** Coldest biome and also covers 1/5 of the Earth's surface.
- **Plants:** lichens, mosses, grasses, sedges, shrubs. Almost no trees due to short growing season and permafrost
- **Animals:** Every animal must adapt in order to survive. Some have grown thick fur which turns white in the winter. Others find a place to hibernate during the winter months.



[Click here to see more Tundra Plants and Animals](#)

EXIT

More Tundra Plants and Animals



Snowy Owl



Caribou



Siberian Lynx



Cotton Plants

<https://www.brainpop.com/science/earthsystem/tundra/>



Lichen



Yellow Tundra Flower



EXIT

Biome Activity

Given identifying factors (such as plants and animals) identify the biome.

[Click here to begin activity](#)





Musk ox enjoy munching on grass, leaves, moss, and lichen. They have dense fur that protects them from cold and rain. A musk ox can be found in Northern Canada and Greenland. In which biome do they live?

Grasslands

Tundra

Temperate Forest



EXIT

You did a
Good Job!



EXIT





Better Luck Next
Time,
Please
TRY AGAIN



EXIT



The Hawk Owl feeds on mice, lemmings, squirrels, and other small mammals that may be hiding amongst pine needles, moss, and lichen. They build their nest in the hollow top of a coniferous tree stump or in an abandoned nest or woodpecker hole. The Hawk Owl can be found in Canada, extreme Northern USA, Northern Asia, and Scandinavia. In which Biome does a Hawk Owl live?

Tundra

**Temperate
Forest**

Taiga



EXIT



Better Luck Next
Time,
Please
TRY AGAIN



EXIT

You did a
Good Job!



EXIT





The Slow Loris spends its day curled up in a tight ball in the forest canopy. At night, the Slow Loris makes its way down to the ground feeding on insects, eggs, small exotic birds, and tropical fruit. The Slow Loris can be found in the hot and humid regions of South and Southeast Asia, Eastern India, Malaysia, Sumatra, Java, Borneo, and the Philippines. In which Biome does the Slow Loris call home?

Rainforest

**Temperate
Forest**

Desert



EXIT

You did a
Good Job!



EXIT





Better Luck Next
Time,
Please
TRY AGAIN



EXIT



End

<https://www.youtube.com/watch?v=hly0ZlyPPDg>



EXIT

Resources

- education.discovery.com/. ../freeimagebig.jpg
- [earthobservatory.nasa.gov/
Laboratory/Biome/](http://earthobservatory.nasa.gov/Laboratory/Biome/)
- community.webshots.com
- www.blueplanetbiomes.org
- <http://www.mbgnet.net/index.html>
- [www.tobinphoto.com/ wildlife-
animals/moose-102.htm](http://www.tobinphoto.com/wildlife-animals/moose-102.htm)
- http://sagehen.ucnrs.org/Photos/animals/other/slides/Wolverine,%20tom_kucera.jpg

- www.danielbergmann.com/html/gallery/birds/06.html
- www.photographyblog.com
- <http://www.radicalphotography.com/Sierra-Madre.htm>
- [bio.bd.psu.edu/.../American Beech 01b Leaf.html](http://bio.bd.psu.edu/.../American_Beech_01b_Leaf.html)
- <http://media.gmu.edu/start/mats/Zebra.jpg>

- http://www.petandwildlife.com/rodents/images/articles/Cynomys_ludovicianus_black_tailed_prairie_dog.jpg