Biomes

Taiga

Animals
Carnivores such as bears, wolves, and lynx feed on moose, snowshoe hare, and shrews.

Plants
Taiga have many cone-bearing evergreen trees. These block out the sunlight so that only lichens and mosses can grow on the forest floor.

Climate
The taiga (a cold forest) is the world's largest biome. Precipitation averages 60 cm per year and average temperature is 0°C.

Temperate Deciduous Forest

Plants
Deciduous trees, which lose their leaves in fall, dominate this biome. Shrubs, ferns, herbs, and mosses grow on the shady forest floor.

Animals
Many birds, insects, amphibians, and reptiles, raccoons, squirrels, skunks, wood mice, deer, bears, bobcats, cougars, wolves, and coyotes live here.

Climate
This biome is known for having four seasons. Temperatures range from 30°C to -30°C from summer to winter. The average temperature is 10°C, and an average of 100 cm of rain and snow falls each year.

Rainforest

Tropical
Tropical rainforest keep fairly constant at 25°C year round and can get 600 cm of rain yearly.

Temperate
Temperate rainforests average 10°C in temperature and 300 cm in rain each year.

Life
Rainforests may contain as much as 50% of all plant and animal species on Earth. Almost every type of animal can be found there.

Layers
The *emergent* layer is treetops protruding out over the rest of the forest.
The *canopy* consists of tall overlapping trees that cover the rest of the forest.
The *understory* is small trees and shrubs that receive little light and compete for nutrients with the roots of canopy trees.
The *forest floor* is covered with *detritus*, dead or decaying organic matter. Fungi, moss, and ferns may live here.

Tundra

Plants
Tundra have low growing lichens, mosses, and grasses adapted to drought and cold.

Climate
A tundra is like a cold desert. Average precipitation is 25 cm/year and average temperature is -12°C.

Animals
Insects and migratory birds come during the summer. Caribou, lemmings, artic hare, fox, musk ox, and small rodents stay year round.

Permafrost
Permafrost is the layer of permanently frozen soil present in tundra.

Desert

Climate
Deserts are the driest biome, receiving less than 25 cm of rain each year. The land is bare because the soil doesn't have much organic matter.

Animals
Many animals are nocturnal and stay in the shade or underground to stay cool. They get most of their water from their food and concentrate their urine to save fluids. Some animals go dormant and become active again during rainfalls.

Plants
Plants tend to be tough and wiry with small or no leaves, water-resistant cuticles, and spines to deter consumption.

Aquatic

Freshwater
These ecosystems include flowing water (rivers, creeks) and standing water (lakes, ponds, wetlands). 3% of Earth's water is freshwater, and half of that is frozen. Fish, amphibians, crustaceans, plants, and microbes live in this environment.

Marine
These ecosystems contain a high salt content and provide nearly half of the oxygen on Earth. They include oceans, seas, coastal inlets, tide pools, and estuaries. They make up a large part of the planet.

Classification
The aquatic biome includes habitats that are dominated by water. The amount of salt (salinity) in the water determines whether it is considered freshwater or marine. The amount of sunlight and oxygen it receives helps further classify these habitats.

Definition
A large geographic area with similar ecosystems and climate (temperature and precipitation). Biomes contribute to Earth's biodiversity.

Grasslands

Climate
Grasslands get 25-75 cm of rain yearly. Dry seasons stop trees from growing, so grasses prevail. Grasslands can be tropical (warm and humid) or temperate (cold winters), so the yearly temperature range can be -20°C to 30°C.

Plants
Grasslands support grasses and grass-like plants.

Animals
Grasslands support high numbers of grazing animals like buffalo, antelope, and zebras, which in turn support predators such as lions and coyotes. Many birds and small mammals also live in grasslands.