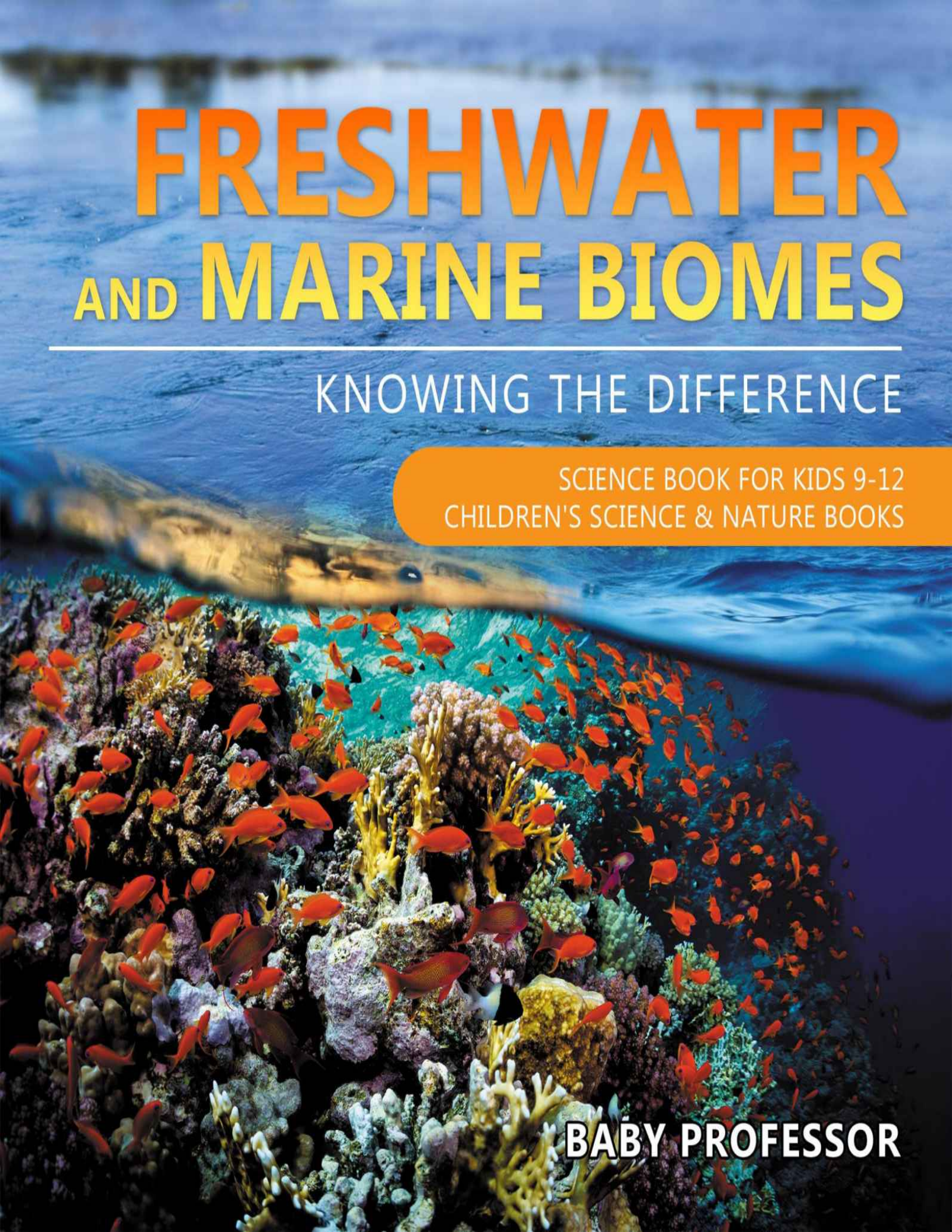
FRESHWATER AND MARINE BIOMES

KNOWING THE DIFFERENCE

SCIENCE BOOK FOR KIDS 9-12
CHILDREN'S SCIENCE & NATURE BOOKS



BABY PROFESSOR

FRESHWA
MARINE

Knowing the

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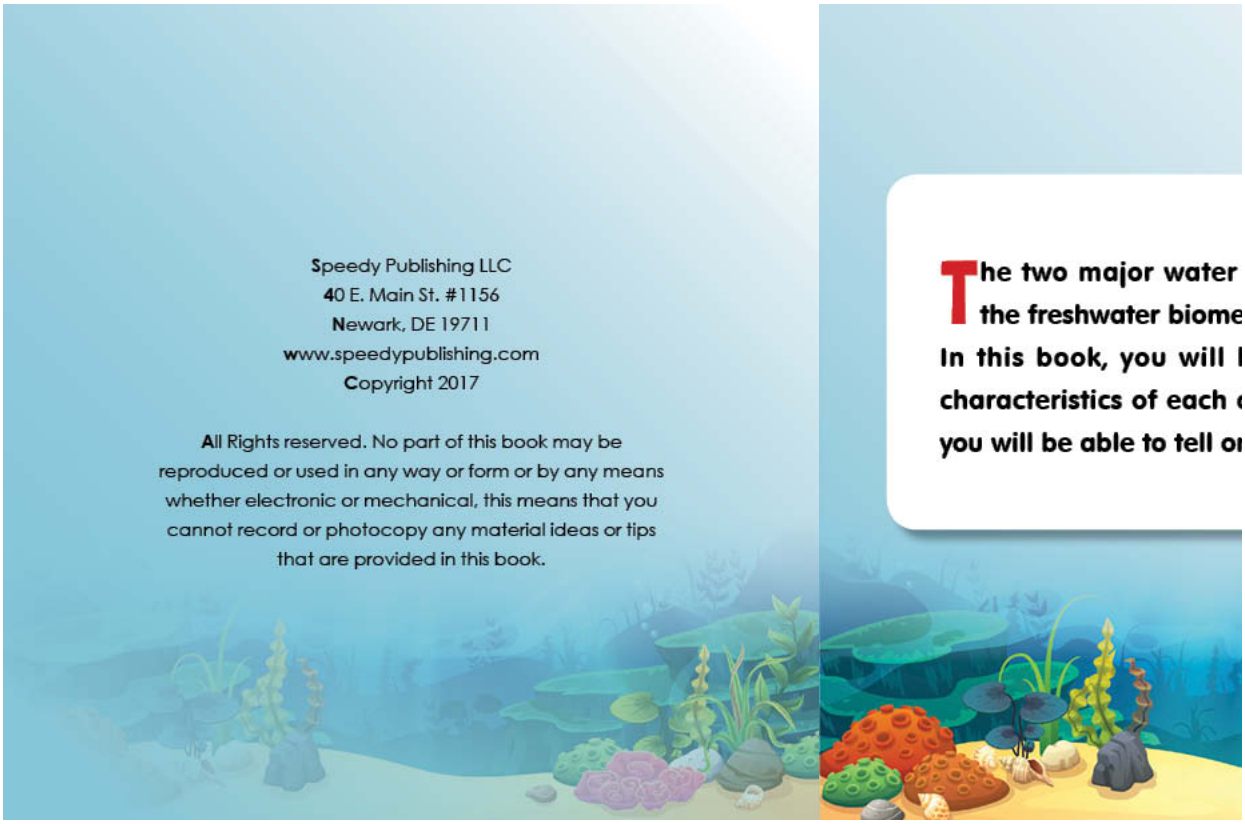
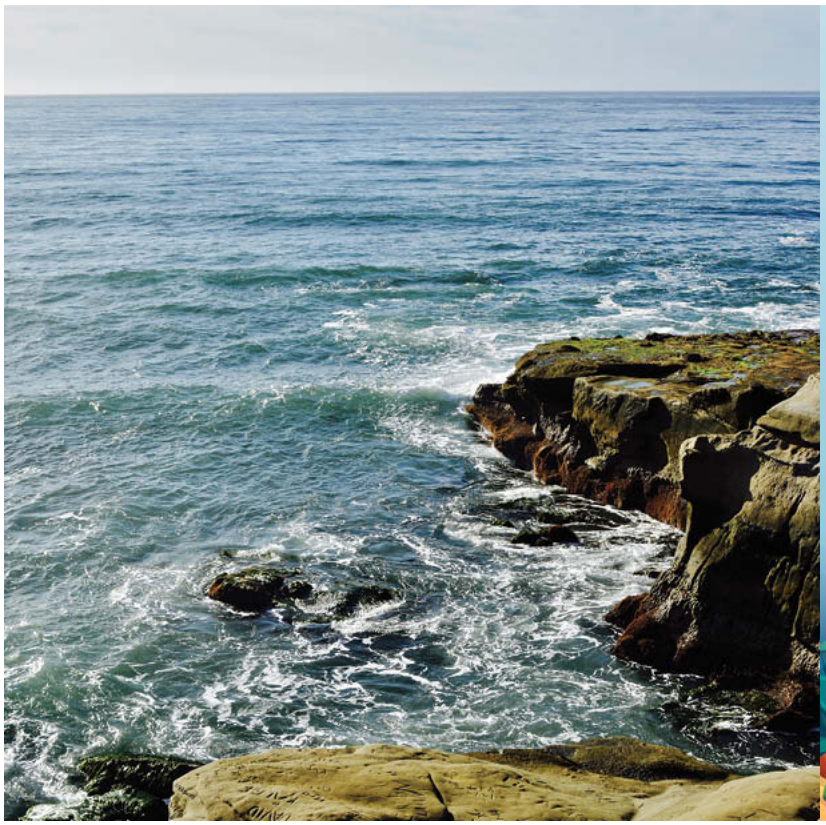


The two major water
the freshwater biome
In this book, you will
characteristics of each
you will be able to tell o

THE MARINE BIOME

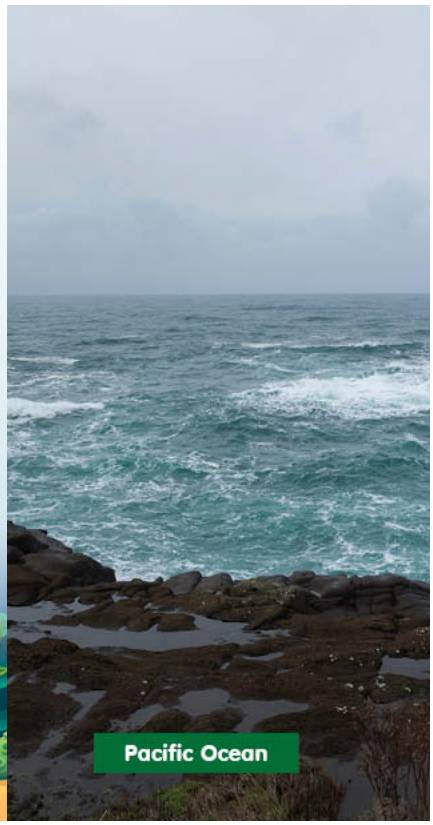
The marine biome mostly consists of saltwater oceans. It covers about 70% of the surface of the Earth and is the largest biome on the planet.



DIFFERENT
MARINE

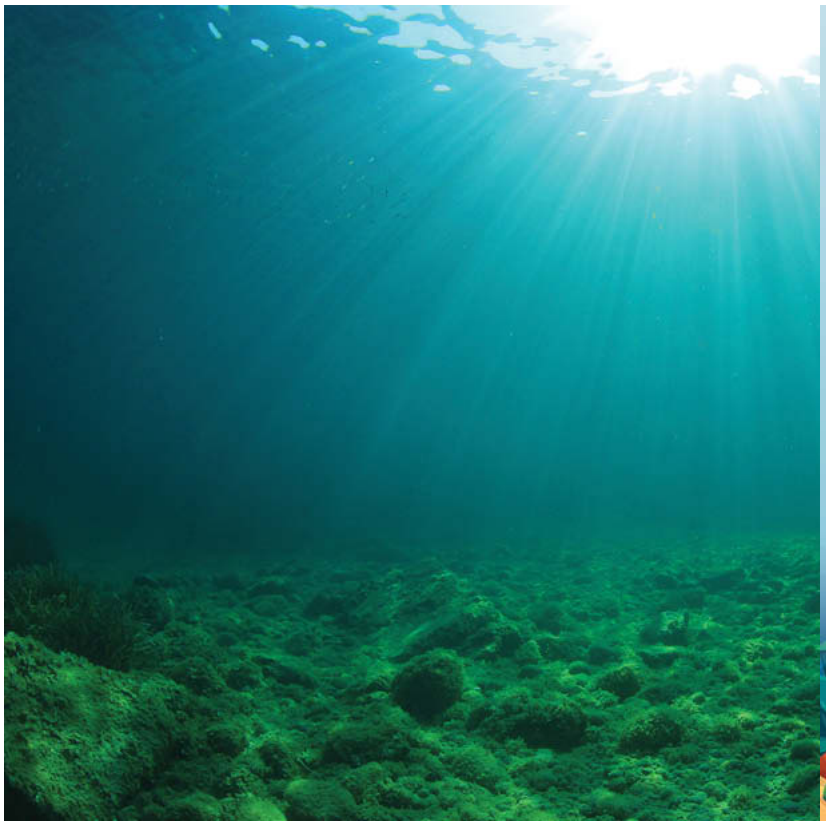
While the marine bio
the saltwater ocean
into three different type

OCEANS: The five predominant oceans covering the world include the Pacific, Atlantic, Artic, Southern and Indian Oceans.



CORAL REEFS: When the
the oceans, they are
approximately 25% of
in these reefs and there
reefs a vital biome.

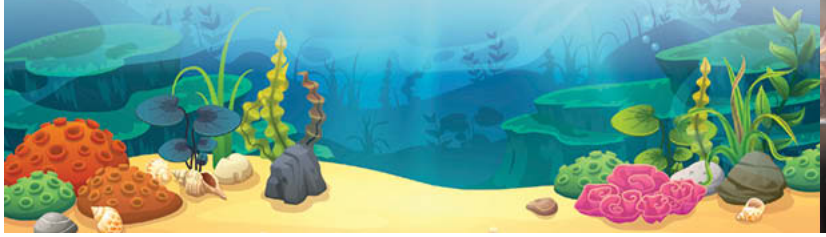
ESTUARIES: The areas where the streams and rivers flow in the ocean are known as Estuaries. This is where saltwater and freshwater meet, creating a biome or ecosystem of its own including diverse and interesting animal and plant life.



OCEAN LIGHT LA

The ocean is separa
(layers). These are
zones since they are b
of sunlight that each z

The sunlit (euphotic zone) is the layer at the top of the ocean which receives the most sunlight. Its depth can vary, but averages approximately 600 feet deep. The sunlight gives energy to the organisms in the ocean by photosynthesis. It also feeds plants and tiny organisms known as plankton. The plankton are quite important since they provide the basis for food for a lot of the remaining ocean life. Consequently, about 90% of life in the oceans lives in this zone.

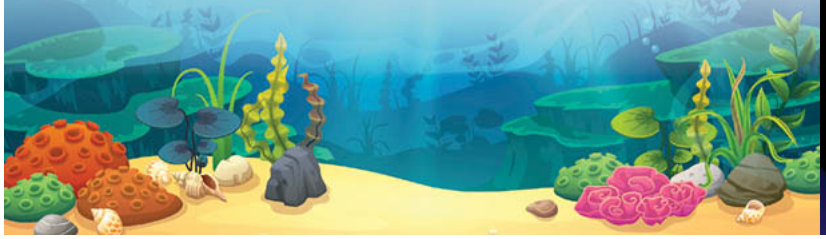


Artemia Plankton

Bioluminescent Creature

The Twilight (dispho
in the middle of the
about 600 feet to abo
dependent upon how
not enough sunlight t
in this zone. The anim
zone have been able t
without much light. T
reaction known as biol
animals are able to cr

The Midnight (aphotic) zone is the layer below 3,000 or so. There is no light and it is totally dark. It is quite cold and the pressure of the water is very high. There are only a few animals that are able to adapt to living in these extreme conditions, living off of the bacteria that gets energy from the cracks in the Earth located at the ocean's bottom. Approximately 90% of the oceans falls into this zone.



Octopus

MARINE BIOM

The marine biome consis
of all of the biomes. A lo
fish, have gills allowing th
water. There are other anim
that have to come to the s
air, but still spend much o
The mollusk, another typ
made of a soft body that d

Here are some of the animals that call the marine biome home:

FISH – Includes swordfish, sharks, clown fish, tuna, stingray, grouper, eels, flatfish, seahorse, rockfish, gars and sunfish mola.

MARINE mammals – Includes seals, blue whales, walruses, manatees, otters and dolphins.

MOLLUSKS – Includes cuttlefish, octopus, clams, squids, conch, oysters, snails and slugs.

Fishes

MARINE BIO

There are thousands of
the ocean, and they de
for energy from the sun. Pl
are vital to all life on Earth
dioxide and supplies much
types of algae include ph
Other types of plants in the
seaweeds and sea grasses

FRESHWATER

The definition of the freshwater biome is having a lower salt content compared to the marine biome which, as we learned earlier, is comprised of saltwater.

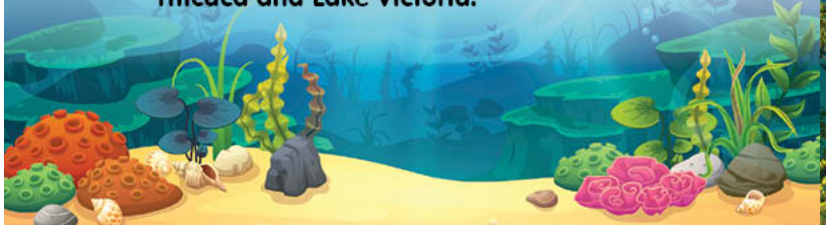
Underwater in Freshwater

TYPES OF FRESH

Freshwater biomes co
ponds, streams, rive

LAKES AND PONDS

Lakes and ponds are often referred to as lentic ecosystem. They have standing or still waters, they do not flow like streams and rivers. Some of the larger lakes around the world are the Caspian Sea, The Great Lakes, Lake Baikal, Lake Tanganyika, Lake Titicaca and Lake Victoria.



Lake Baikal

Littoral Zone

Lakes are usually separated into four biotic community zones:

- The littoral zone is the area that is close to the shore and were aquatic plants like to grow.

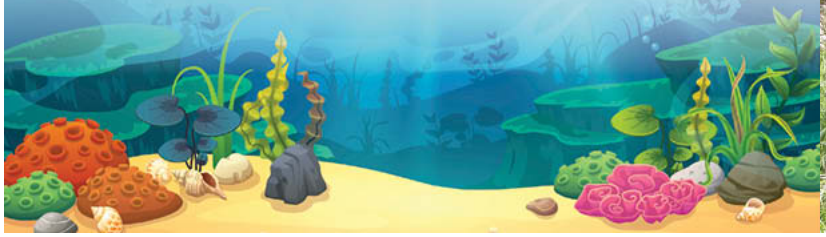
- The limnetic zone is the
lake, which is away fro
- The Euphotic zone is belo
there is enough light for
- The benthic zone is the b

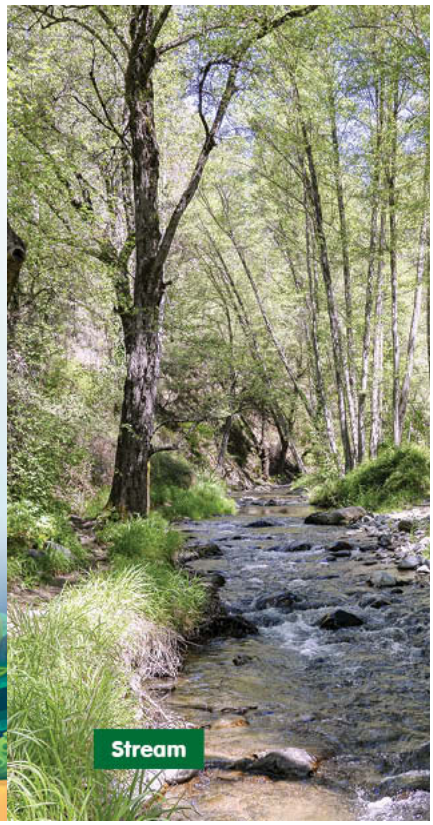
A lake's temperature can vary over time. The lakes will stay the same temperature in tropical areas, and the water will get colder the deeper you go into the lake, which gets less sunlight. In northern areas, the lakes change in temperature as the seasons change.

Lake animals include snails, frogs, worms insects. Lake plants in lilies, bulrush, duckwee stonewort.

STREAMS AND RIVERS

These are often referred to as lotic ecosystems, meaning that the water flows, not like the still waters of lakes and ponds. Their size can vary dramatically from a small trickling stream to rivers that are a mile wide and go for thousands of miles.





Stream

River

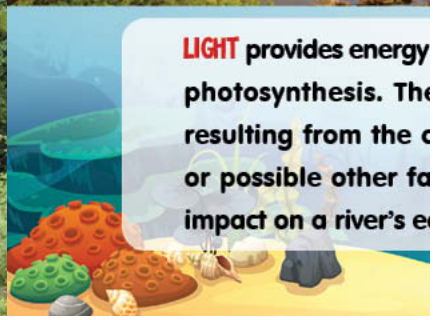
The water for a riv
melting snow, rain
even glaciers. Most p
rivers always flow to
4 out of the 10 longes
world flow to the nort

The ten longest rivers of the world are the Nile, the Amazon, the Yangtze, the Mississippi (Missouri), the Yenisei, the Yellow, the Ob, the Irtysh, the Congo, the Amur and the Lena.

River Nile

The following are the key factors that influence the ecology of the rivers and streams:

FLOW is the amount of water as well as the strength at which it flows, impacting the types of animals and plants that are able to live in a river.



LIGHT provides energy
photosynthesis. The
resulting from the
or possible other fa
impact on a river's e

THE TEMPERATURE (CLIMATE) of the land which the river is flowing through has an impact on local animal and plant life.

CHEMISTRY involves the type of geology through which the river is flowing and will have an impact on what type of rocks, nutrients, and soil are in the river.

Crocodile

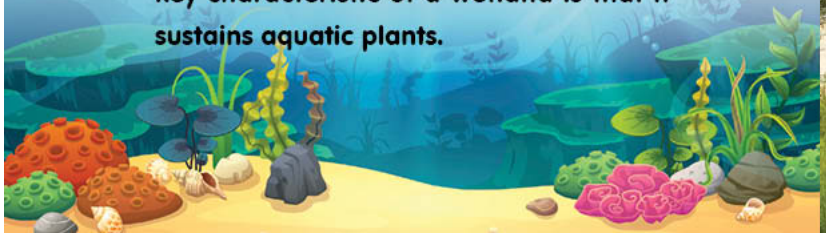
RIVER animals that live around or in the river include snails, insects, crabs, fishes such as catfish and salmon, snakes, salamanders, otters, beavers and crocodiles.

Birch

RIVER plants growing ar
quite a bit dependent
located. Typically, plants
edge where the water
pace. Plants include rive
stargrass, and willow tre

WETLANDS BIOME

The wetlands biome combines water and land. Another way to think of it is land that is saturated with water. It may be mostly underwater for a portion of a year, or flooded only at certain times. One key characteristic of a wetland is that it sustains aquatic plants.



Depending on where the wetland is located, the amount of rainfall can vary quite a bit. It might be over a hundred inches in a year or as little as seven inches in a year.

Wetlands include swamps and o large bodies of wate and are known to b world.

They also play a vital role in nature. If located near a river, they can help in preventing floods. They also help with filtering and purifying the water. Many animal plant species call the wetlands their home.

Chilly Slough Wetland

Wetland Animals -- The Wetlands have a great diversity with animal life. Birds, reptiles, and amphibians do well here. Crocodiles and alligators are the largest predators that live in the wetlands. Some other species of animals that live here are minks, beavers, raccoons, deer and minks.

Wetland plants – Plants
underwater or float o
like large trees, mostly gro
plants include water lilie
cattail, mangroves and cy
largest wetland is the Pa
America.

Now that you have
differences betwe
and Freshwater Bion
questions about anoth
Reef Biome. For addi
you can go to your lo
the internet, and ask
teachers, family and f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