Tundra

Ecosystems

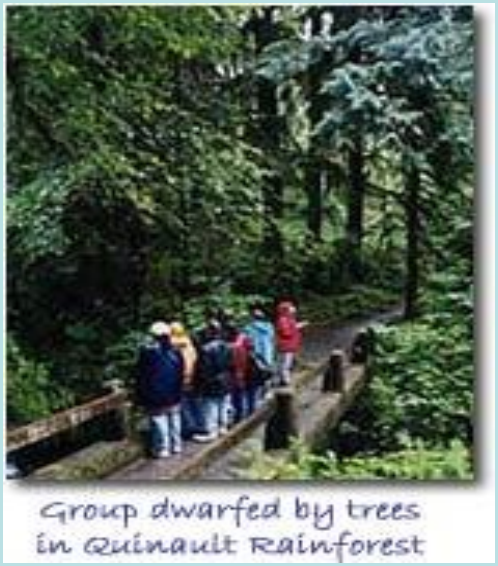
Swamps

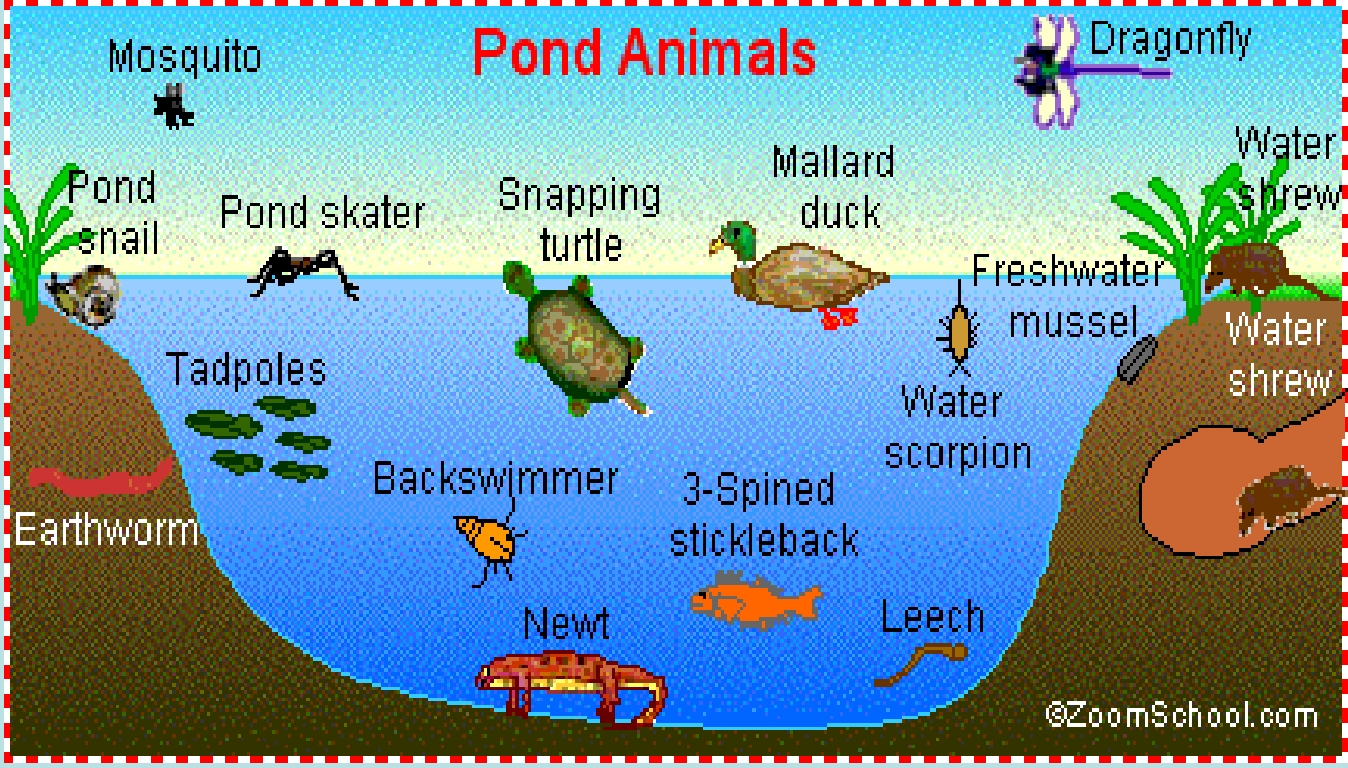
Ocean/Shore Line

Desert

Mountains

S:\FACULTY\6th Science\Introduction to ecosystems.asf





Ecosystem: All of the living and non-living things that interact in an area.

G:\SECONDARY SCIENCE\Middle School\6th Grade\Ecosystems1\Ecosystems.asf

Examples of Ecosystems

- Lake - Rainforest
- Swamps - drop of water
- Desert - grasslands
- Ocean - forest
- Tundra - mountains
- Taiga - pond
- Savannah - river
- Coral reef

Tundra

- The frozen cold ecosystems found near the Northern most parts of the Earth are called tundra by scientists. These locations are known for their long cold winters, and their short cool summers.

Desert

- Desert biomes are found throughout the Earth. These dry locations have specialized plants and animals that have become adapted to surviving on little water. Some plants and animals can actually store water within their bodies, such as cactus, camels, and some varieties of frogs found in Australia.

Grassland

- Grassland biomes exist throughout the Earth, and in many cases can be vast, expanding across millions of square miles. These biomes are marked by sparse trees, and extensive grasses, as well as a variety of small and large animals. Some of the largest land animals on Earth live in grasslands, including American bison, elephants, giraffes, and so forth.

Tropical Rain Forest

- Tropical rain forests are found in locations that receive significant amounts of precipitation. These locations are easily recognizable by their abundance of life forms. These life forms include numerous trees, plants such as ferns, and an abundance of insects, spiders, snakes, monkeys, and other plants and animals.
- Tropical rain forests are very important to the overall health of the planet Earth, and are responsible for replenishing a significant portion of the atmosphere’s oxygen supply.

Deciduous Forest

- Deciduous forests exist in areas with a moderate amount of precipitation, where temperatures are also generally moderate. These ecosystems typically have long warm summers, and short cool winters. The most noticeable feature are the abundance of deciduous trees. A deciduous tree is a tree that looses all its leaves in autumn.

Coniferous Forest

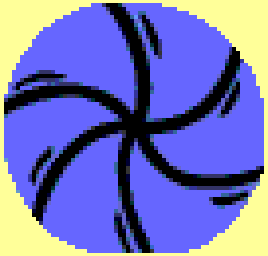
- Coniferous forest ecosystems are found in regions of the Earth that experience somewhat long and cold winters, with summer being much shorter. Thus it is no surprise that these biomes are more common, the closer one travels towards the Earth's poles. Additionally, this biome is found high a top mountains, where temperatures tend to be lower, and winter tends to last longer.

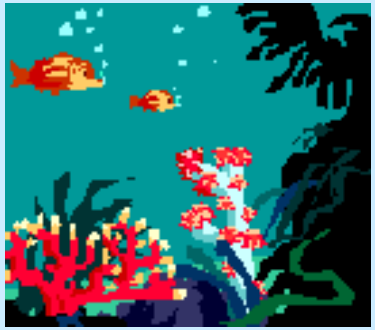
Environmental Factors

Biotic Factors	Abiotic Factors
The living parts of an ecosystem.	All of the non-living parts of an ecosystem
Example: 	Example: 

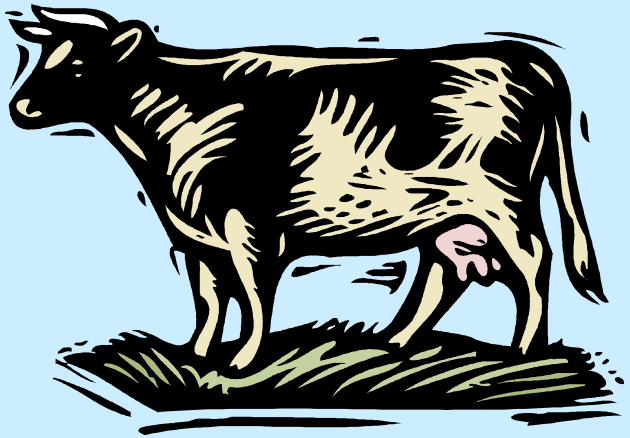
Abiotic and Biotic factors.asf

Producers – organisms that produce their own food and energy.



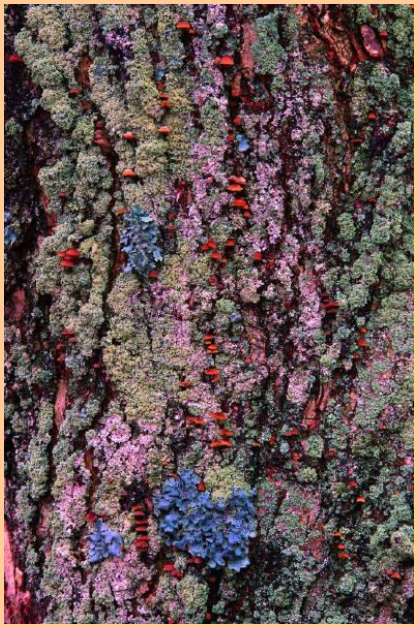


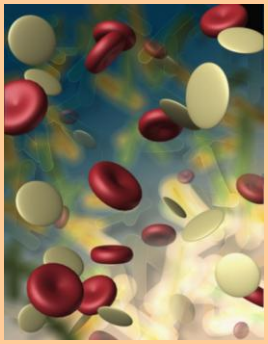
- **Consumers** – organisms that get their food and energy by eating other organisms.



Decomposers –

organism that gets their energy by breaking down the waste and remains of dead organisms into smaller molecules.





Decomposers.asf

Habitat

The place where the organism lives and provides the things that the organism needs to survive

Water

Food

S P A C E

Niche.asf

How does energy flow through an ecosystem?

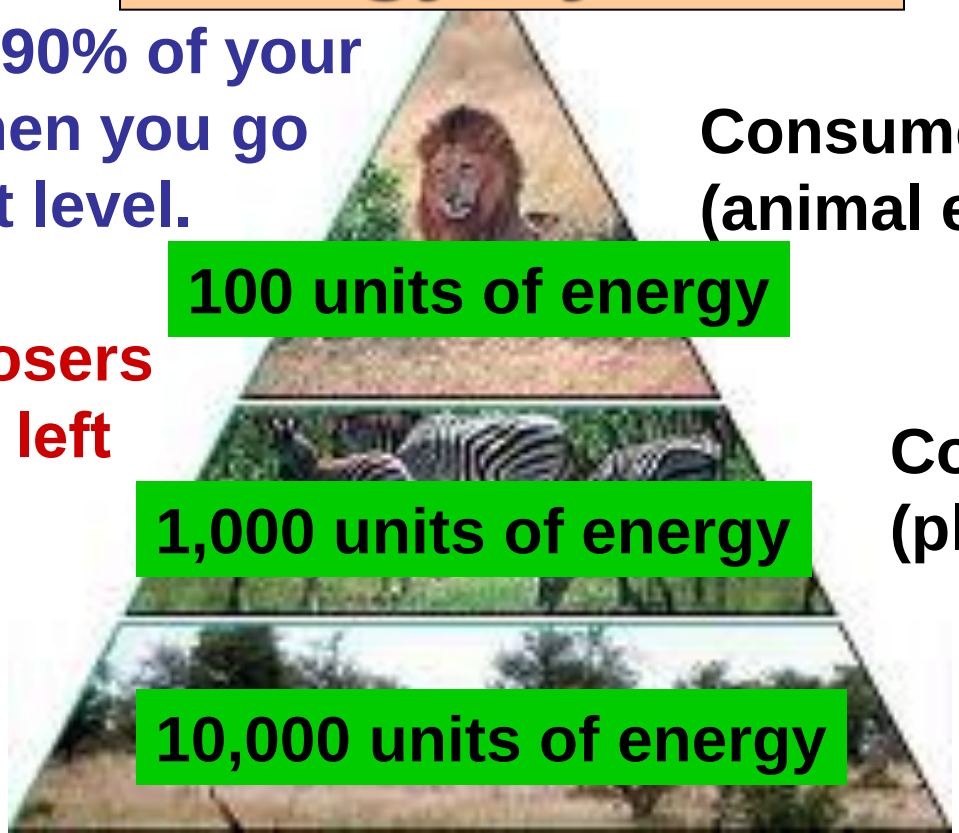
- What is energy?

The ability to do work or cause change

Energy Pyramid

- **You lose 90% of your energy when you go to the next level.**

- **Decomposers eat what's left over.**



Consumer: carnivores (animal eaters)

Consumer: herbivores (plant eaters)

Producer: plants

What is a food chain?

The flow of energy of one organism eating another organism

Turn your energy pyramid into a food chain:

Grass → **Zebras** → **Lion** → **Bacteria**

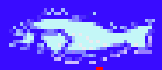
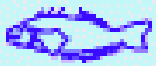
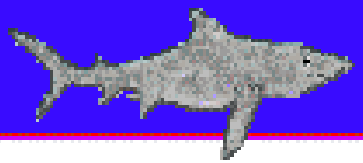
Producer → **Consumer** → **2nd level consumer** → **Decomposer**





S:\FACULTY\6th Science\Energy flow through an ecosystem.asf

Sample Food Chains

Trophic Level	Grassland Biome	Pond Biome	Ocean Biome
Primary Producer	grass	algae	phytoplankton
Primary Consumer	grasshopper 	mosquito larva 	zooplankton 
Secondary Consumer	rat 	dragonfly larva 	fish 
Tertiary Consumer	snake 	fish 	seal 
Quaternary Consumer	hawk 	raccoon 	white shark 

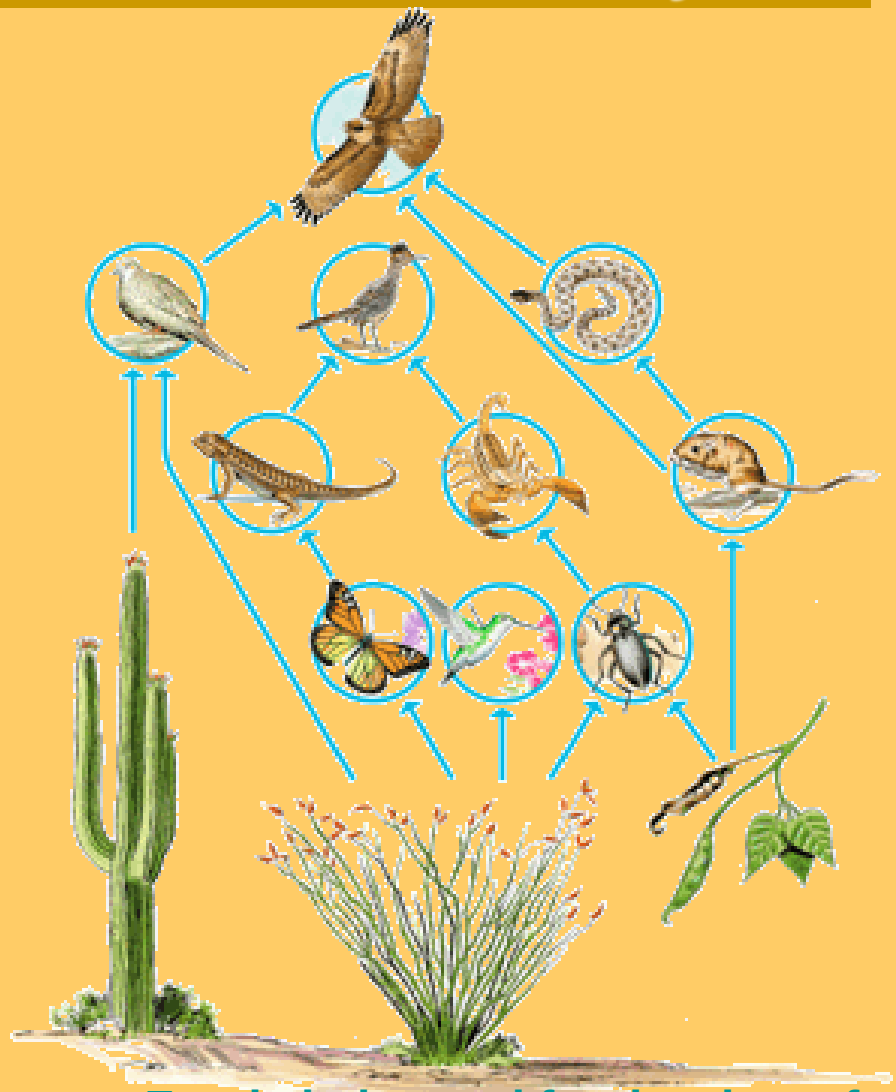
What is a food web?

The pattern of overlapping food chains in an ecosystem

FOOD WEBS SHOW HOW MANY ANIMALS ARE INTERCONNECTED BY DIFFERENT PATHS.

FOOD WEBS show how plants and animals are connected in many ways to help them all survive.

FOOD CHAINS follow just one path as animals find food.



S:\FACULTY\6th Science\Food web.asf

Food chains and food webs.asf