

Interactions in an Ecosystem

MUTUALISM	Mutualism is when both species benefit	Symbiosis	Shark + Remoras
PREDATATION	Predation is when one organism eats another		Owls + Mice
PARASITISM	Parasitism is one organism benefits and the other is harmed	Symbiosis	Covid + Humans
COMPETITION	Competition is when one organism fights with another over something		Male birds fighting over a female
COMMENSALISM	Commensalism is when one organism is benefits and the other is neither helped or harmed	Symbiosis	Birds + Trees

To earn even a bigger brain memorize which of these are symbiosis, define symbiosis and give an example of different organisms that fit through each of these things (You know what I mean don't you?)

ADAPTATIONS

BEHAVIORAL ADAPTATIONS

include activities / behaviors that help an animal survive

EXAMPLES

Migration (birds fly south in the winter), Hibernation (This is deep sleep in which animal's body temp drops, body activities are slowed to conserve energy)

STRUCTURAL ADAPTATIONS

involves some physical characteristic (structure) of an animal's body.

EXAMPLES

Mimicry (allows one animal to look, sound, act like another animal to fool predators into thinking it is poisonous or dangerous.), Camouflage (lets an animal blend in with its environment)

Adaptations are inherited characteristics that help an organism survive and reproduce in its environment

ECOLOGICAL FOOTPRINT

Everyday humans consume energy, materials & use land. The way you use the Earth leaves an impression, like a footprint, of where you have been

Ecological footprint is the impact you have on the environment, the smaller your ecological footprint is, the better. Your ecological footprint is measured in Global Hectares (2 1/2 acres)

THE 4 R'S

Reduce	Cut down on/ limit the amount of garbage you use/shower (the bills??)
Reuse	Use again
Recycle	Turn something into a new thing
Recover	Waste being converted to energy

ITS IN THIS SPECIFIC ORDER: REDUCE, REUSE, RECYCLE, RECOVER

Food Web & Food Chains

FOOD CHAINS

A pathway of energy flow from one living thing to another in an ecosystem

Food chains always: start with the sun, show who eats who, energy flow moves in 1 direction, energy flows from the producer to the consumer

Food chains end with a decomposer who always returns the nutrients back to the soil

FOOD WEBS

Link up of the many/ all of the possibilities of food chains in an ecosystem

Food chains are not realistic as many organisms will eat more than one type of food and each organism will have more than one predator.

There are producers and consumers in a food web

Food Webs and Food Chains Video

Video: http://youtu.be/2lqhJNgn_Wg

EXOSYSTEM VOCABULARY

Biotic Living or once living

Abiotic Never has lived

Symbiosis A relationship between 2 species that live closely together over a period of time

Ecosystem The interactions between biotic and abiotic factors in an area

Ecology The study of nature

Community Different groups of species live and interact with each other

Environment A place or location with abiotic factors



EXOSYSTEM VOCABULARY (cont)

Population A group of individuals of the same species living in an area

Niches The roles (jobs) of an organism

Producers Make their own food

Consumers Eat either consumers or producers

Carnivores Only eat meat (consumers)

Herbivores Eat producers only (plants)

Omnivore Eats both producers and consumers

Scavengers Eat dead and decaying plant and animal matter

Decomposers Break down dead organisms and return nutrients back to soil

Use these words in a sentence if you think your so smart

To help memorize, write the word and definition 10 times on a blank paper without looking at the previous sentences. Ex. Ecosystem are the interactions between biotic and abiotic factors in an ares

The 4 basic needs of living things

Gas exchange - the plant take carbon dioxide and give us oxegyn that we turn into carbon dioxide that the plants turn into oxegyn...

Water

Energy

Suitable Habitat

Succession

DEFINITION

SUCCESSION: A slow process where one species replaces another in an ecosystem

EXAMPLE

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PIONEER SPECIES: The first species to occupy a lifeless piece of land

Lichen & Moss

PRIMARY SUCCESSION: The gradual growth of a species in an area which nothing has lived there before

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SECONDARY SUCCESSION: Gradual growth of organisms in an area that used to be home to many species

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BIOINVASION: Species are introduced to a location they have never been to before

A ship of fruit carries spiders with it that get sent to a new area

LIMITING FACTOR: Makes a population decrease in size

temperature, water availability, oxygen, salinity, light, food and nutrients

THREATENED: The amount of a specific species is decreasing

Mountain Gorilla

ENDANGERED: Organism is in risk of being extinct

Spotted Owl

EXTIRPATED Organism is only lost in a large region

(Taylor) Swift Fox

EXTINCTION: Species is lost in the whole world

Wooly Mammoth



Water Cycle Video

Video: <http://youtu.be/7fkR9foB0cU>

Toxins

Bioaccumulation - the process in which toxins enter the food webs by building up in individual organisms

Toxins usually come via water

Biomagnification - rise or increase in contaminated substances

Tuna, anyone?

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