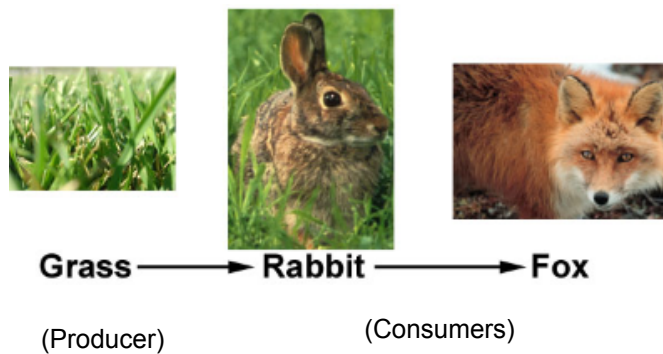


LESSON 2- HOW IS ENERGY PASSED THROUGH AN ECOSYSTEM?

ENERGY TRANSFER

Each time something eats something else, food energy is transferred from one organism to another. **The transfer of energy between organisms is called a food chain.**

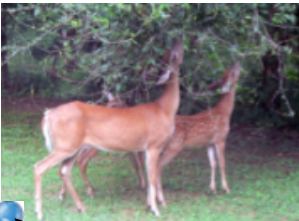
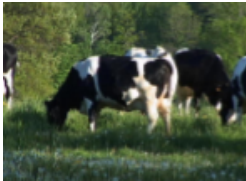


Ecosystem- All the organisms in an area and the environment in which they live.

Niche- an organism's role or job in an ecosystem.

TYPES OF CONSUMERS

Herbivore- an animal that eats plants or other producers.

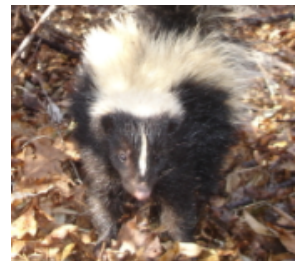
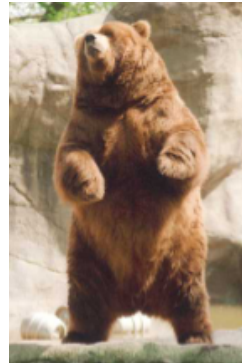


Click here to play a game

Carnivore- an animal that eats mainly other animals.
second- level consumers



Omnivores- eat both plants and other animals
Can be first or second- level consumers.

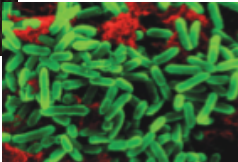


DECOMPOSERS

Decomposers- breaks down the remains of dead organisms.
Returns nutrients to the soil for plants to use.
Connects both end of a food chain.



Mushrooms



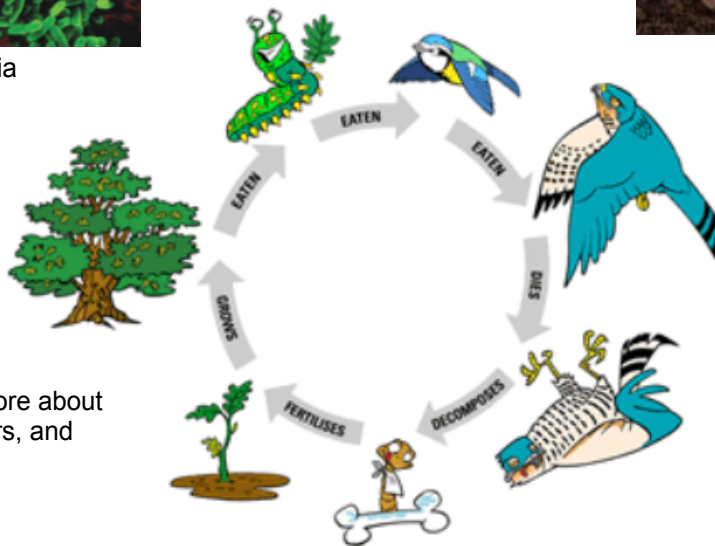
Bacteria



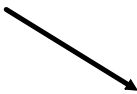
Fungi



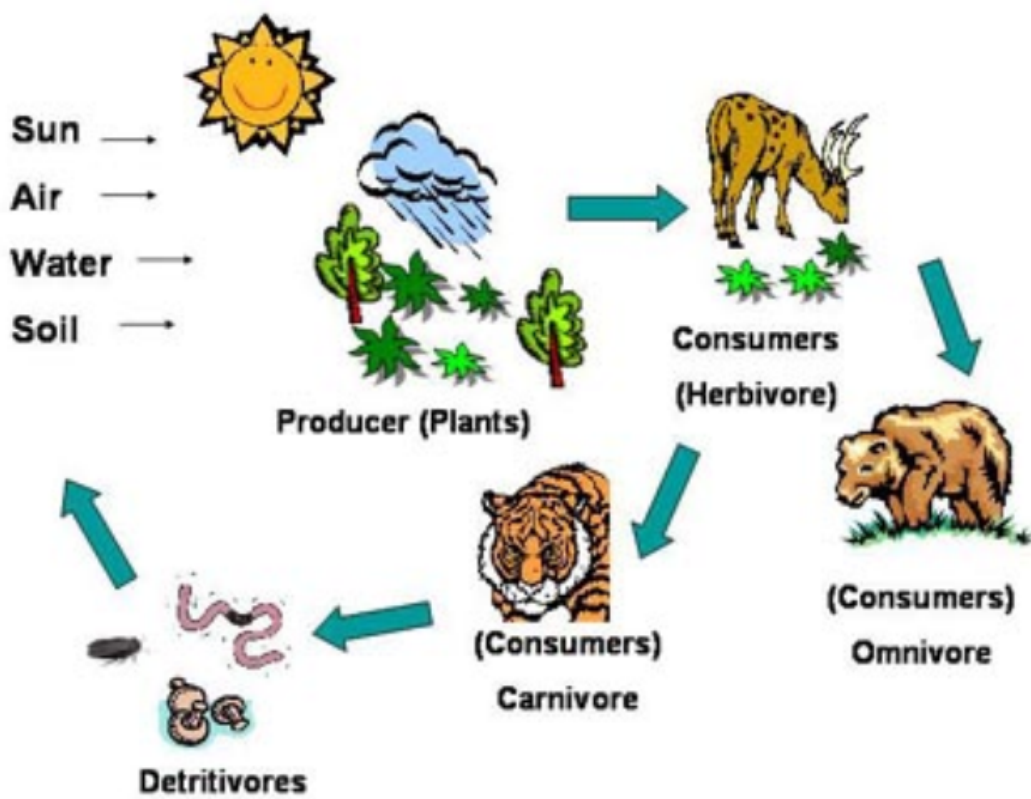
Worms

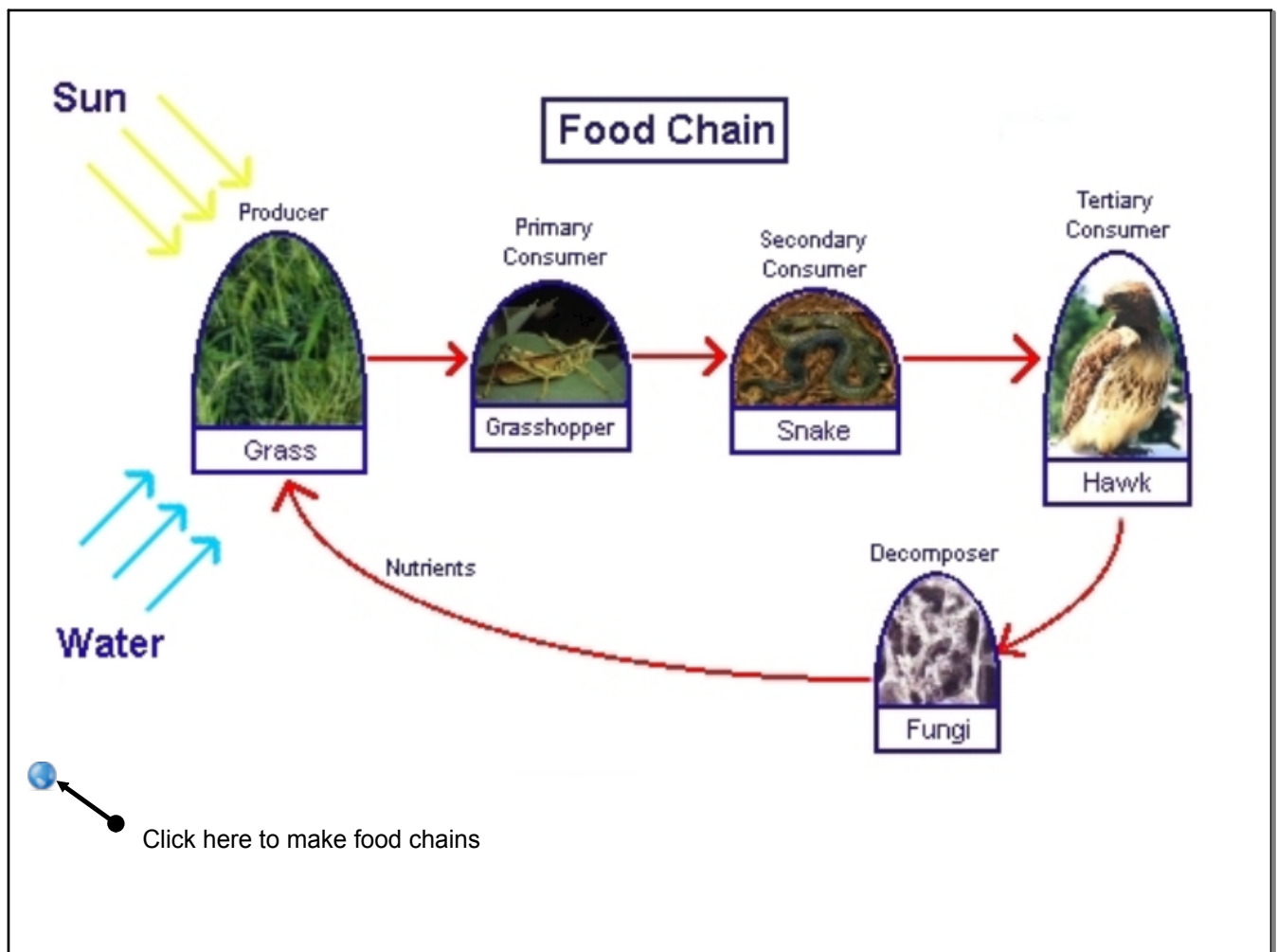


Click here to learn more about
producers, consumers, and
decomposers



FOOD WEB





FOOD WEBS

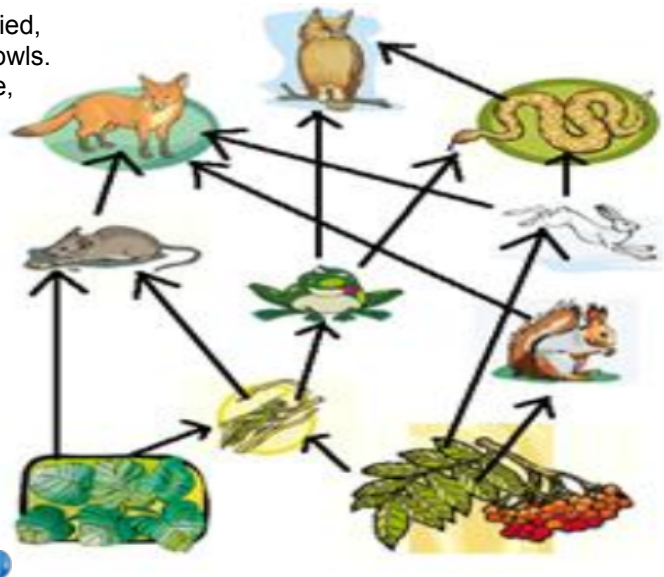
A **food web** shows the relationship between many different **food chains**.

***Most animals eat more than one kind of food and can be a part of several food chains.**

*** Because organisms in an ecosystem depend on each other, a change in the number of one kind of organism can effect the entire ecosystem.**

Example: In this food web, if the frogs all died, there may not be enough food for the snakes and owls. The grasshoppers couldn't all be eaten by the mice, so there would be too many of them. The grasshoppers might eat too many plants which affects the food supply of the mice.

Press on the link to make food webs.

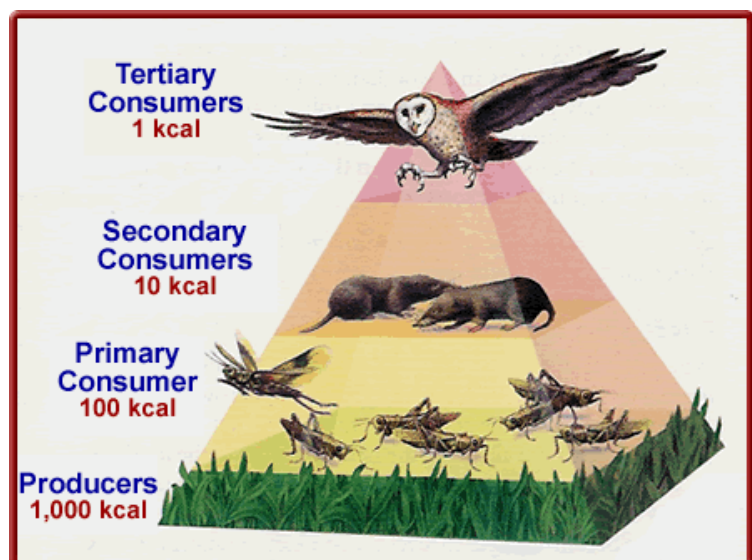


ENERGY PYRAMIDS

Energy Pyramids show the amount of energy that is passed from one level of a food chain to the next.

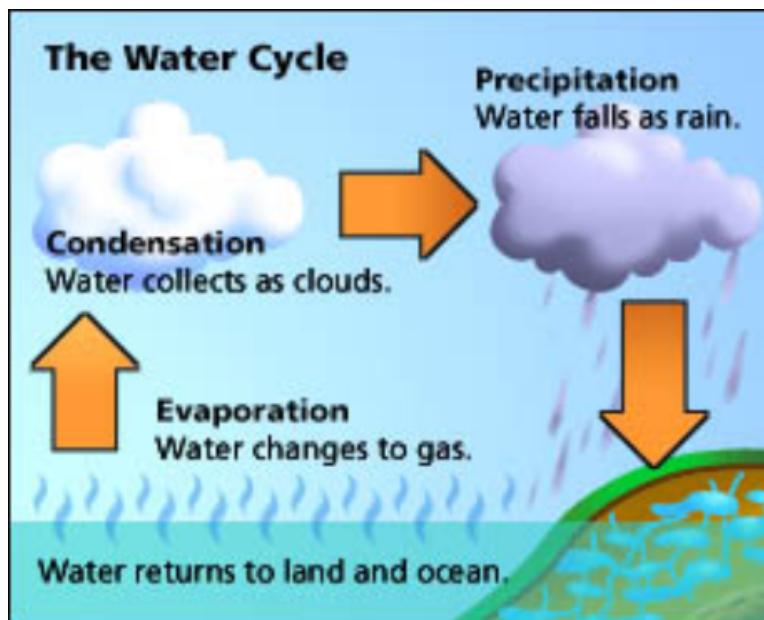
Most energy at each level is used by the organism at that level for its own life functions. About 90% of the energy is used by the organism and only 10% is passed on to the next level.

Because so little energy is passed on, there needs to be many producers and there can only be a few organisms near the top of the pyramid.



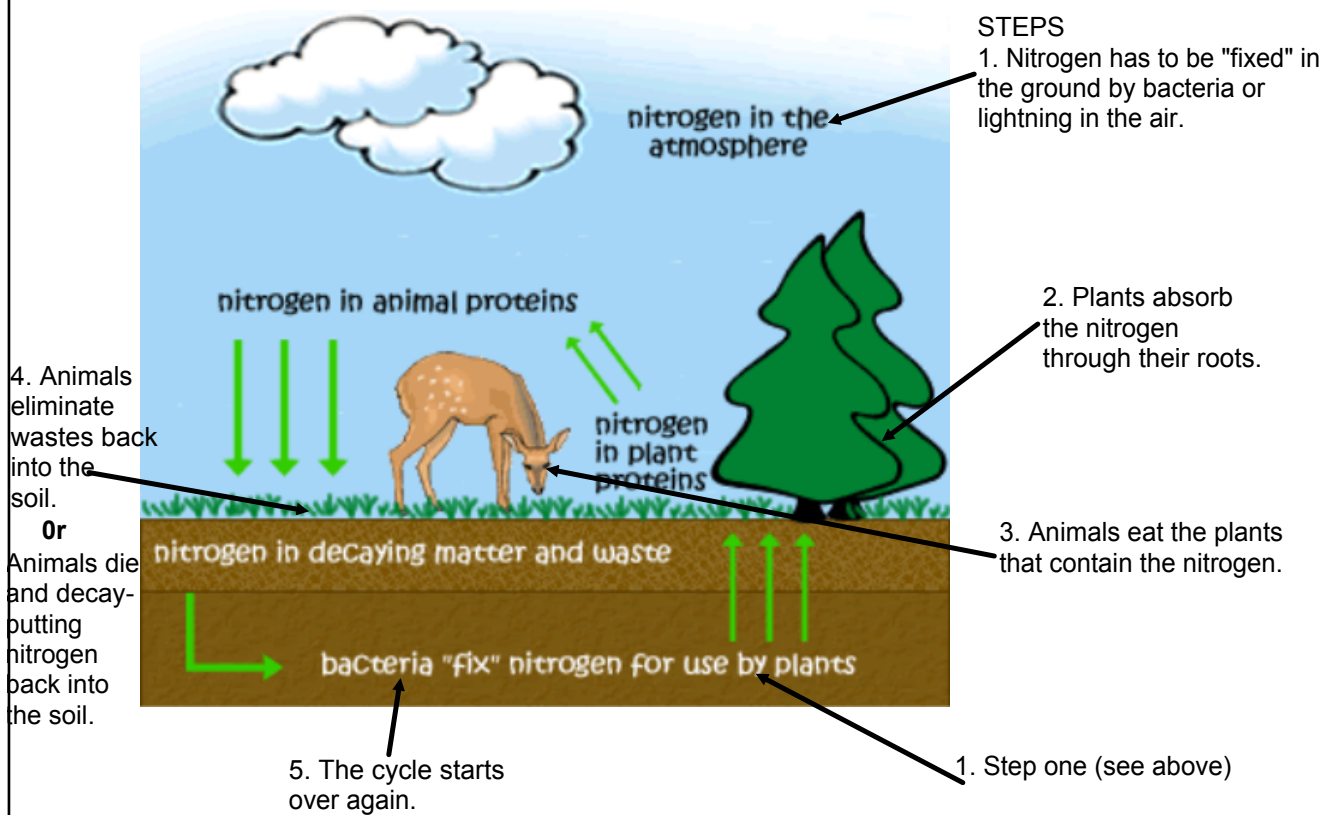
NATURAL CYCLES

WATER CYCLE- Provides water to plants (producers) for photosynthesis.

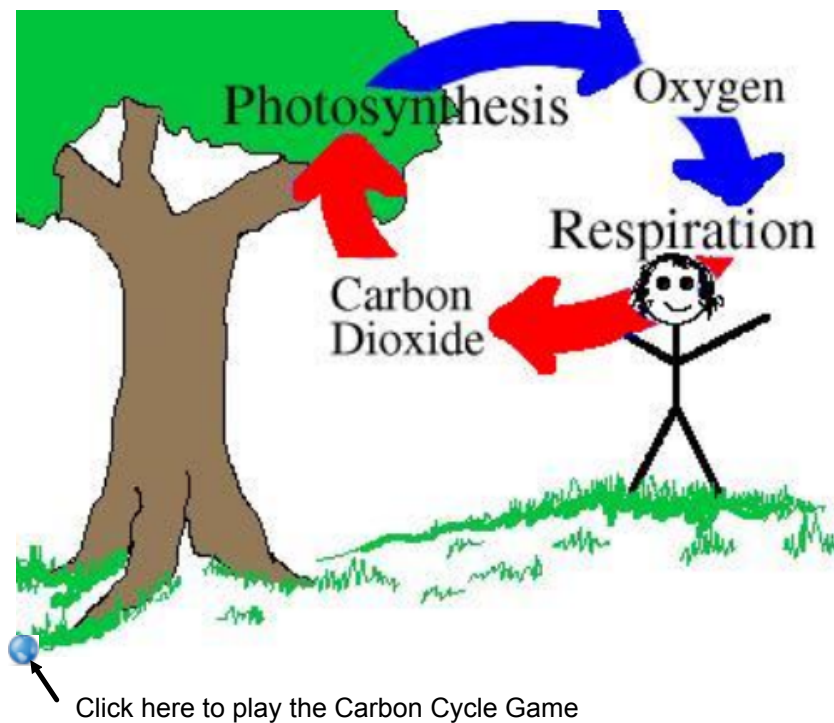


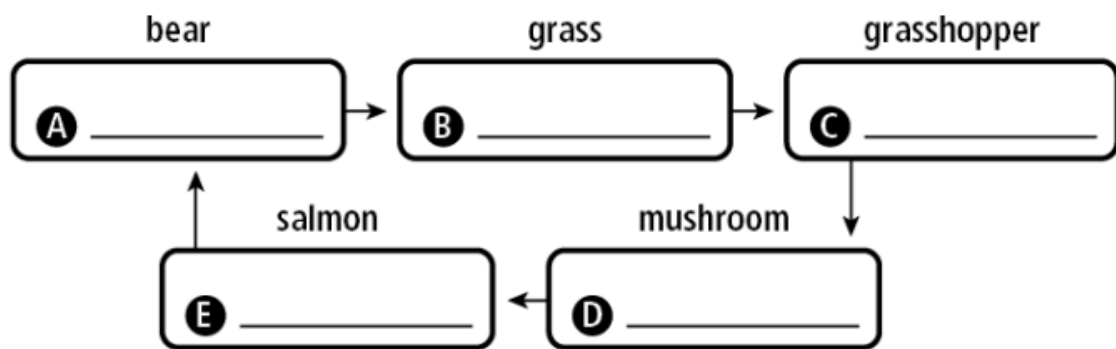
[Click here to view Water Cycle Animation](#)

NITROGEN CYCLE



CARBON- OXYGEN CYCLE





Attachments

water cycle animation.mp4

The_Cycling_of_Nutrients_in_the_Forest_Ecosystem__Producers__Consumers__and_Decomposers