

5.L.2.1

Ecosystems

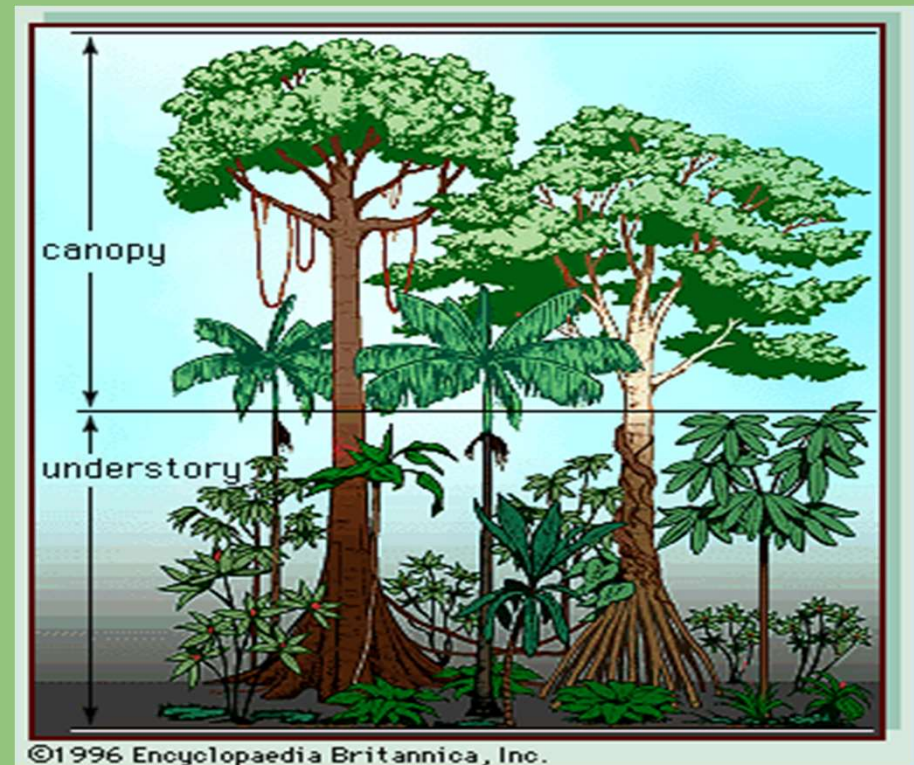
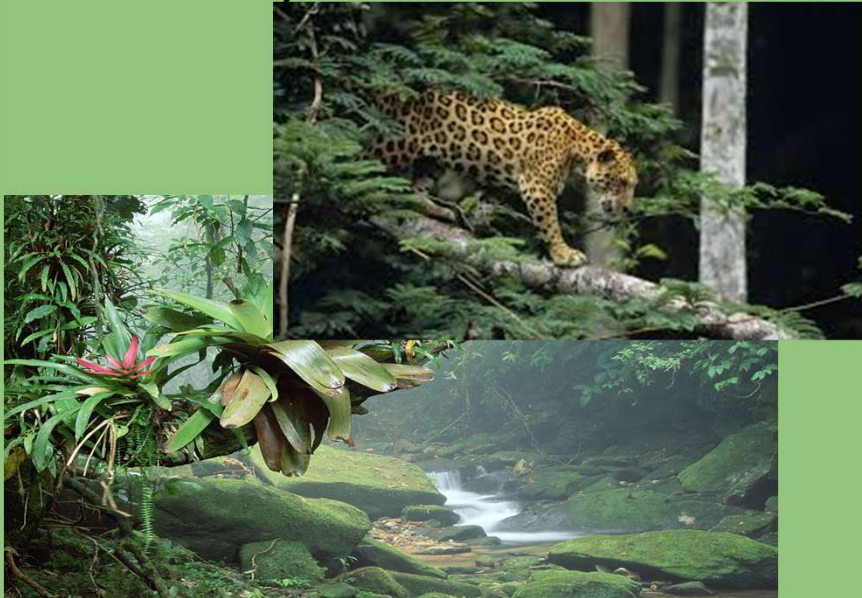
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Biomes

TROPICAL RAINFOREST

has most species of plants and animals :: BIODIVERSITY,
located around Equator

hot & wet year round



SAVANNA/GRASSLAND

less rainfall than dry forest, but more than desert,
covers of grasses spotted with trees

large animal herds & frequent fires

Lions

Zebra

Wildebeest

Gazelles

Elephants

Giraffes



DESERT

dry (less than 25 cm rainfall/year)

extreme temperature changes (hot/cold)

cacti/succulent plants

organisms able to tolerate extreme conditions



TEMPERATE GRASSLAND

plains & prairies; Midwest
very fertile soil

4 seasons - seasonal precipitation,
less rain than temperate forest

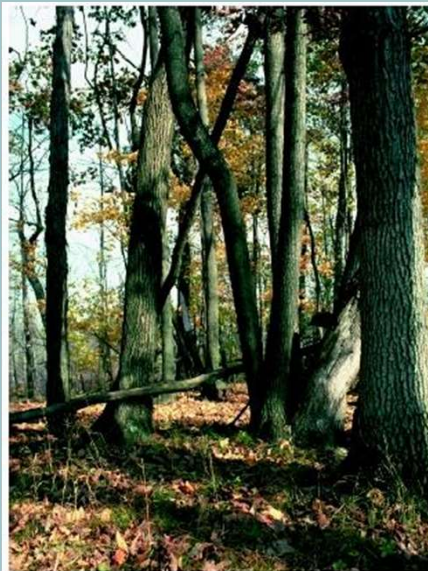


TEMPERATE/DECIDUOUS FOREST

deciduous & coniferous trees (cone-bearing)

Woodlands, deer, foxes, wolves, raccoons, chipmunks

4 seasons - but more rain than grassland



Temperate Deciduous Forest Animals

- Animals must be able to adapt to changing seasons



Broad-Winged Hawk



Turtle



White-Tailed Deer



Raccoon



Opossum



Ladybug



CONIFEROUS FOREST/TAIGA

Evergreen forests
Bitterly long winters,
short, mild summers

Moose, black bear, wolves



TUNDRA

permafrost = layer of *permanently frozen* subsoil

Strong winds -no trees, small plants

mosses, lichens, grasses

arctic fox, caribou



FRESHWATER (AQUATIC)

Ponds, lakes, rivers, streams

Can be free flowing or standing

Animals adapted to water **WITHOUT**
salt content/salinity



SALTWATER/MARINE (AQUATIC)

Ocean, sea, coral reef

Plankton, algae

Organisms adapted to **HIGH SALT content** in water



ESTUARY (AQUATIC)

Where saltwater MEETS freshwater!!!

Organisms adapted to
**low/moderate amounts
of salt** in water



WETLANDS (AQUATIC)

Swamps/marshes
Where water covers soil



5.L.2.2

Ecosystems

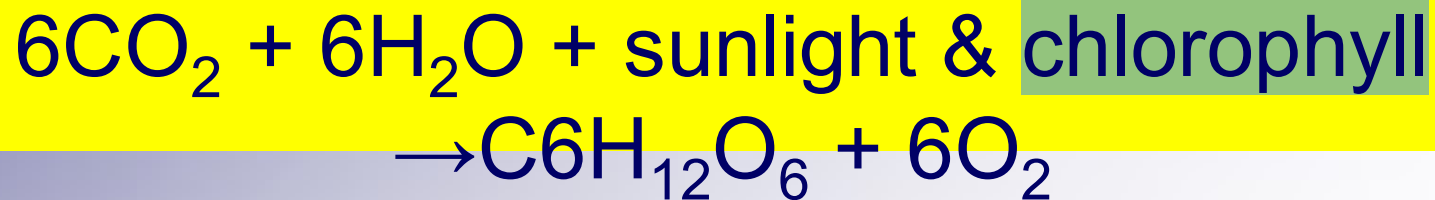


Food Chains & Food Webs



- Begins with the SUN

- Photosynthesis





(apple tree, blade of grass, bush, carrot, tomato plant)

Organisms that can make
their own food are called
PRODUCERS.



(insects, pigs, humans, wolves, tigers, cows, dogs, ANYTHING WITH A MOUTH!)

Organisms that cannot make their own energy are called **CONSUMERS.**

PRODUCERS=PLANTS

CONSUMERS=ANIMALS

**DECOMPOSERS=worms,
bacteria, fungi, mushrooms**

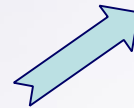
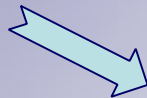
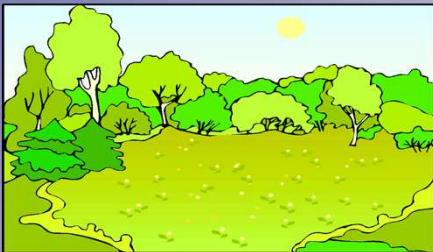


(mushrooms/fungi, earthworms, bacteria, mold)

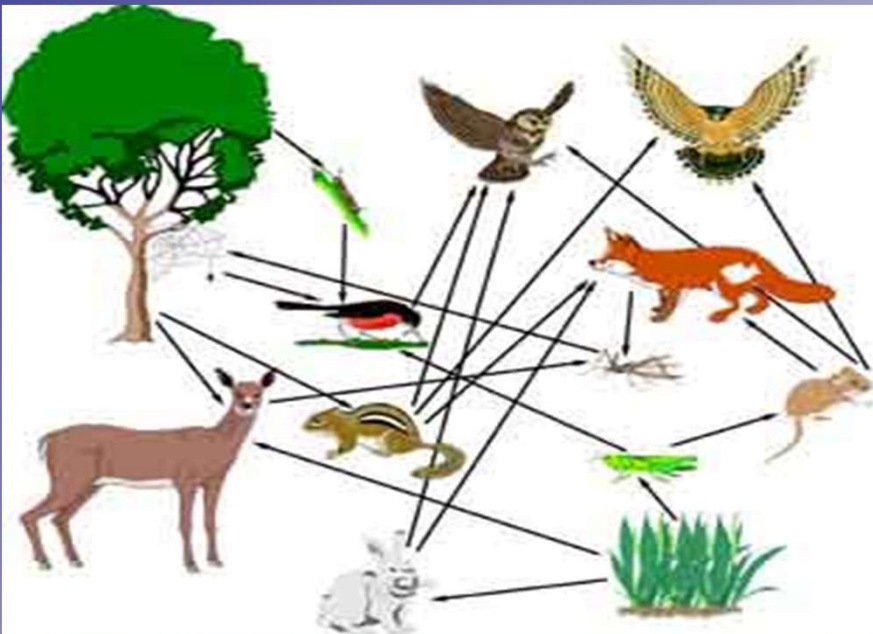
Organisms that feed on and break down dead organisms to return as nutrients to the soil are called

DECOMPOSERS.

The transfer of energy from sun to producer to primary consumer to secondary consumer to tertiary consumer can be shown in a **FOOD CHAIN.**



Food Webs:



- Are **interconnected food chains**
- They show the feeding relationships in an ecosystem

5.L.2.3

Ecosystems

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Interactions in an Ecosystem



Limiting Factors

- A limiting factor is an abiotic or biotic factor that restricts the number of individuals in a population.





Limiting Factors

- Limiting factors can include:
 1. Competitors
 2. Disease and parasites
 3. Weather
 4. Fires





Fires

- Fires lead to succession which is a predictable change in the community over time





Available Habitat

- Human activities play a large role
- Development, damming rivers, clear





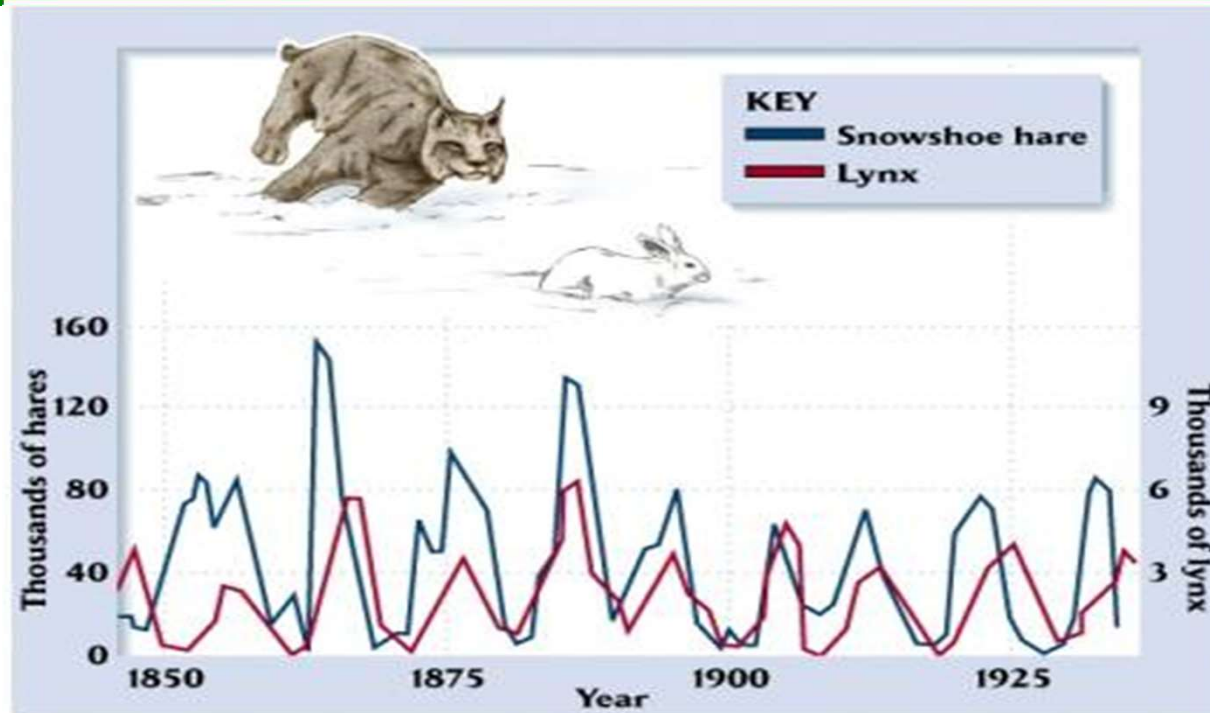
Predators

- As the prey population increases, the predator population increases. As the prey population decreases, then so does the predator





Example: Lynx and Hare:



5.L.3.1/2

Genetics/Hereditiy

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Hereditiy & DNA

Inherited vs. Acquired Traits

All LIVING things have DNA

- DNA is passed on from biological parents to their offspring.
- The key was the ability to self-replicate
- This meant it could pass down its instructions to another copy by replicating.

Characteristics = Traits

- A characteristic of an organism may be *inherited* or *acquired*.
- You are a unique individual.
- Characteristics about you are called traits.
 - Examples: Eye color, basketball skills

Examples of Inherited Traits

- Eye Color
- Hair Color
- Skin Color
- Height
- Foot size
- Moles, birthmarks, freckles
- Diseases or conditions you are born with



Examples of Learned Traits/Behaviors

- Mannerisms
- Language
- Religion
- Food preferences
- Music likes and dislikes
- Favorite sport



Some traits are both!

- Skin color is a combination trait
 - **Inherited** part:
Receive genes for skin color from parents.
 - **Acquired** part:
Amount of time in the sun determines level of tan.

