Biomes
&
Ecosystems

Tundra

- -40 to 18C → -40 to 70 degrees F. Coldest Biome
- Almost no trees
- Precipitation (rain) is so little, it's less than a lot of the world's deserts

Coniferous Forest

- -40 to 20 → -40 to 68 F
- Coniferous and evergreen trees, which help the trees survive in a cold and dry climate
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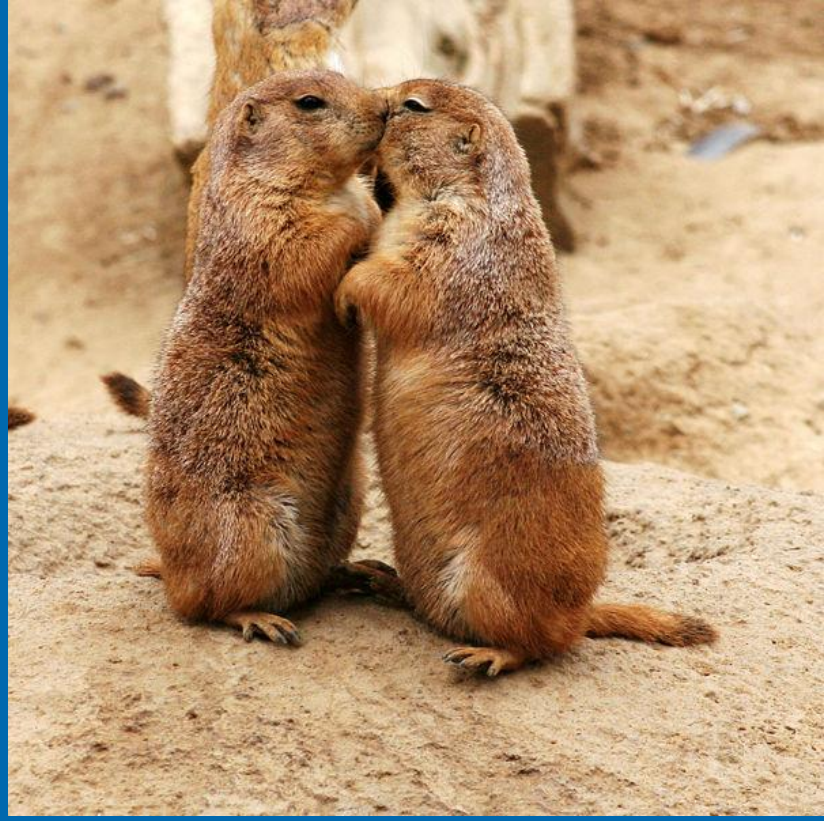
Deciduous Forest

- -30 to 30 → -22 to 86 F.
- Broadleaf trees; oaks, maples, beeches, etc. & mosses
- Have all four seasons (which means the animals that live there are adapted to live in different conditions!)



Grassland

- 20 to 30 → 68 to 86 F
- Grasses… hmmm makes sense… different kinds of grasses include; barley, oat and clover
- Another word for the grasslands? Prairies!

Desert

- Driest of all biomes; -3.9 (night) to 38 (day) → 24.98 (night, below freezing) to 100.4 (day), these are just averages
- Cactus has an adaptation to store water in its leaves.
- Gets only 10% of the rain that the rainforest gets.

Shrubland/Savannah

- Various
- Mostly herbs, some acacia trees
- Small plants have waxy leaves to help conserve water!

Rainforest

- 20 to 25 → 68 to 77 F
- Vines, palms, orchids, ferns. Some of the trees can get up to 250 feet high
- Can have tropical or temperate rainforests. Example of temperate… us!

Ecosystems

Ecosystems Versus Biomes

- A biome is a community of plants and animals living together in a certain kind of climate.
- An ecosystem consists of all plants, animals and micro-organisms (biotic factors) in an area functioning together with all of the non-living physical (abiotic) factors of the environment.
- Ecosystems are more specific than biomes. For example; some websites mention the “marine biome”. However, specific ecosystems in this biome include coral reef, freshwater, estuaries, etc.

A little more about ecosystems

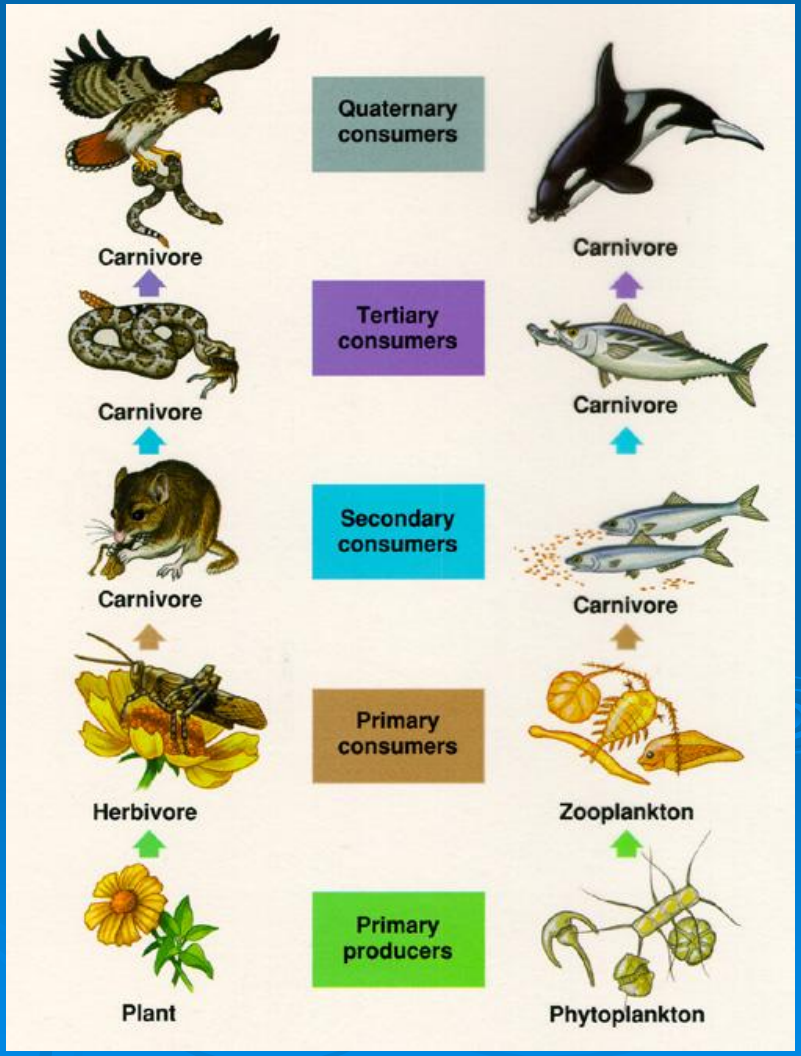
- All the organisms living in an ecosystem hold a specific niche, or a mode of existance that a species has within an ecosystem.

- A species' niche includes:
  - Its habitat (where it lives)
  - Its relationship with other organisms
  - How it gets its food.

- All factors (biotic and abiotic) balance in an ecosystem. If you have a disturbance event (flood, habitat destruction, pesticides, etc) it will ultimately affect all of the organisms.

Food Webs

- Primary producers- produce biomass from inorganic (non-living) compounds
  - Examples?
- Decomposers- break down organic matter
- Primary consumers- Herbivores
- Secondary consumers- Carnivores
- Tertiary/quaternary- Top of the food chain
- The higher up the food chain you get, the less energy there is! Only about 10% of the energy from one level gets passed up to the next.



Here's what you're going to do;

- Create your own ecosystem! It doesn't have to be real! So you can make up your own plants and animals as well!
- This will take a couple days so NO RUSHING!!!
- You will find the requirements of what you need for your ecosystems online
- It's very important to make sure you explain how the different species in your ecosystem are related!!!