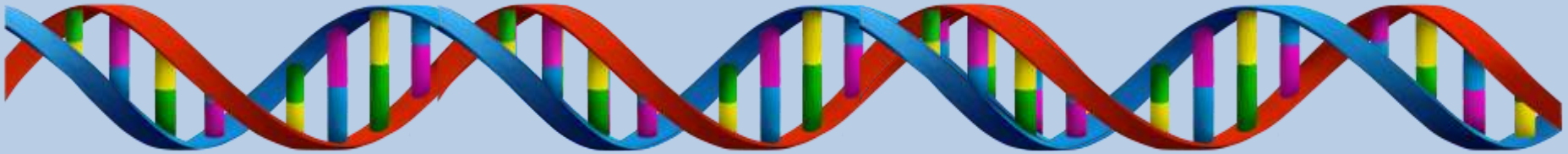
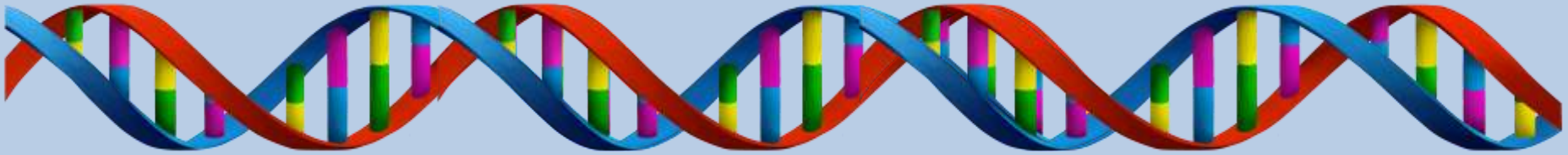
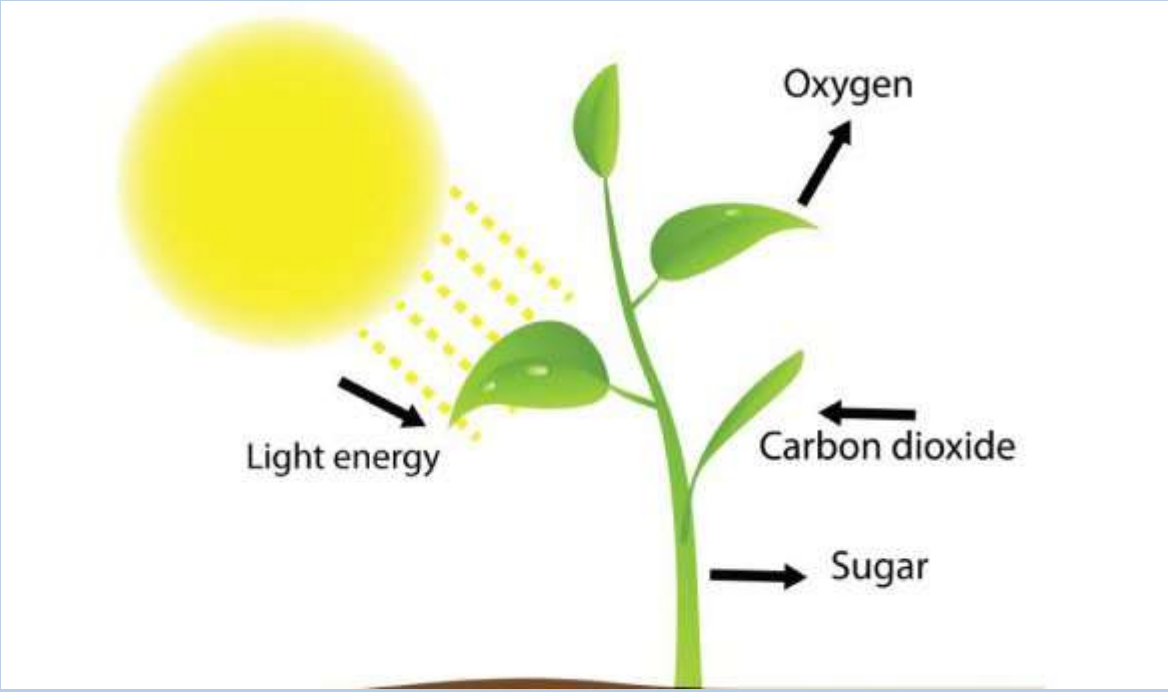


1. What are the two ways that autotrophs obtain energy?
2. What is the difference between decomposer and detritivore?
3. How many species make up a population?



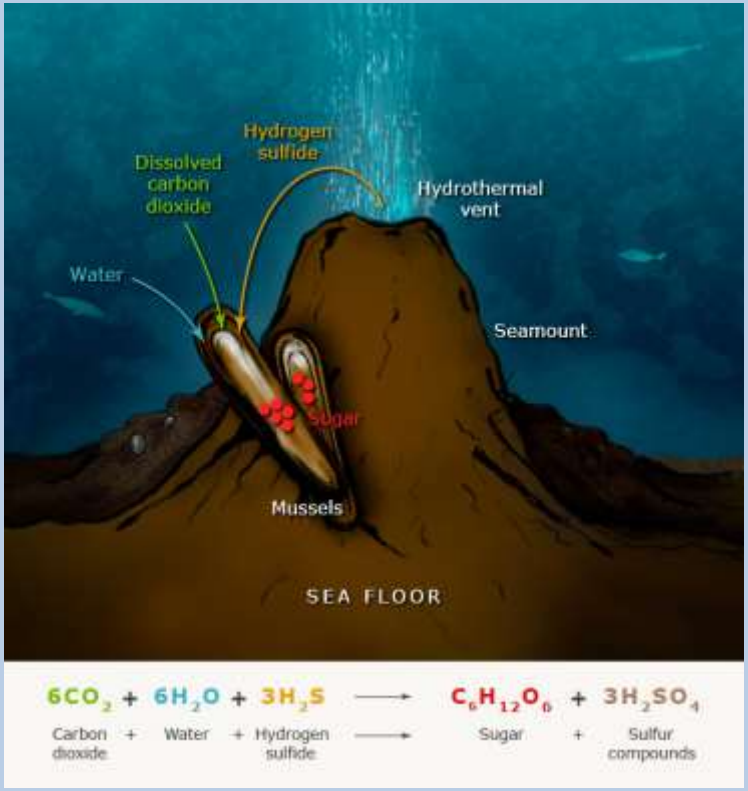
Categorizing Ecology

- Photo = Light
- Synthesis = To make



Categorizing Ecology

- Chemo = Chemicals
- Synthesis = To make



Categorizing Ecology

Categorizing Ecology

Decomposers BREAK DOWN dead organic matter and recycle the nutrients back into the environment

Categorizing Organisms

- Detritivore- internal digestion
- Decomposer- external digestion by chemically breaking down decay (organic matter)

Categorizing Organisms

Herbivore

Heterotroph

Autotroph

Scavenger

Detrivore

Carnivore

Omnivore

Photosynthesis

Decomposer

Energy Flow in Ecosystems

- Energy in an ecosystem starts with an abiotic factor (sun or chemicals) and is CAPTURED by autotrophs

Energy Flow in Ecosystems

- Autotrophs are then consumed by heterotrophs

Energy Flow in Ecosystems

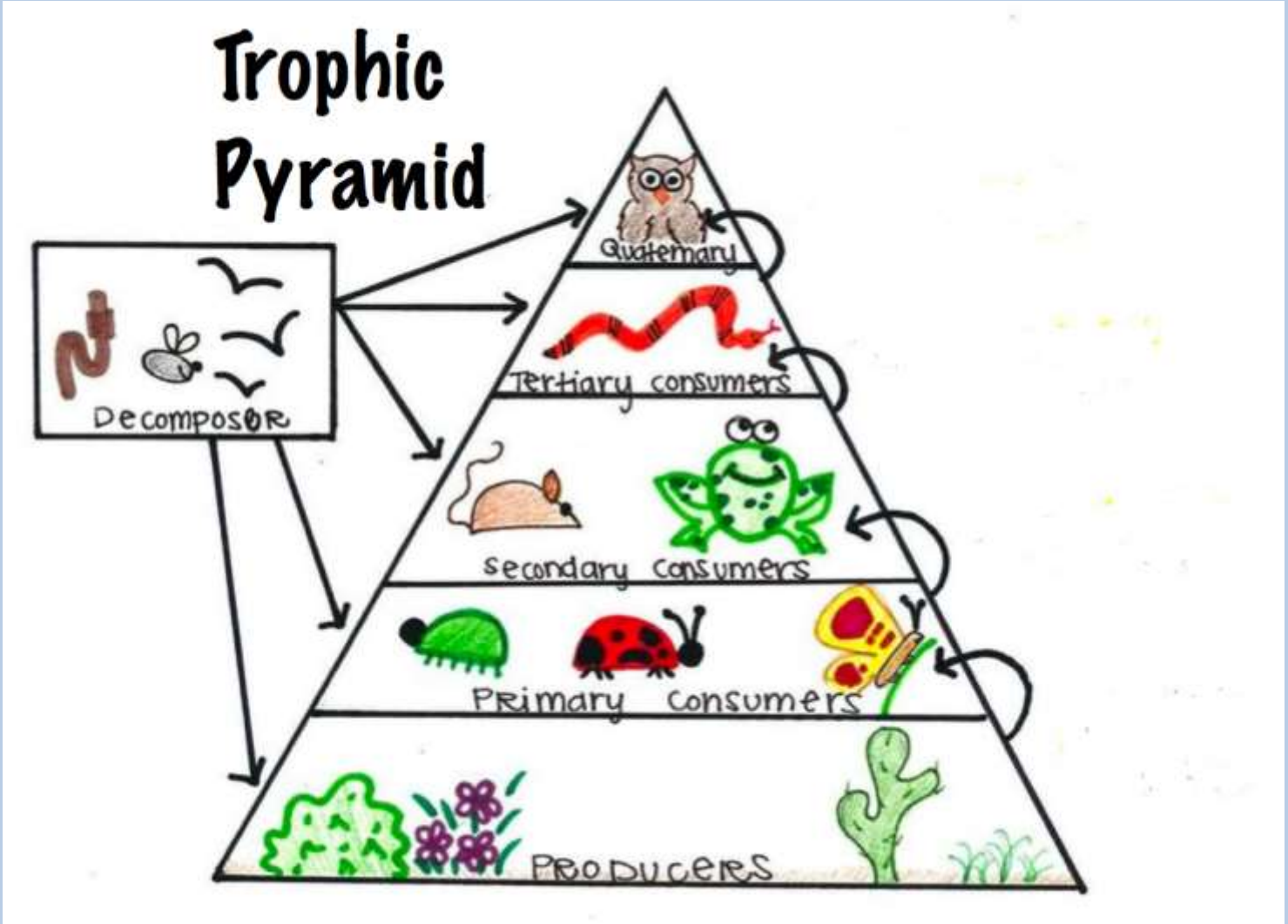
- **What eats the herbivores?**

Energy Flow in Ecosystems

Energy Flow in Ecosystems

- Where do decomposers fit into the trophic levels?

Energy Flow in Ecosystems



Energy Flow in Ecosystems

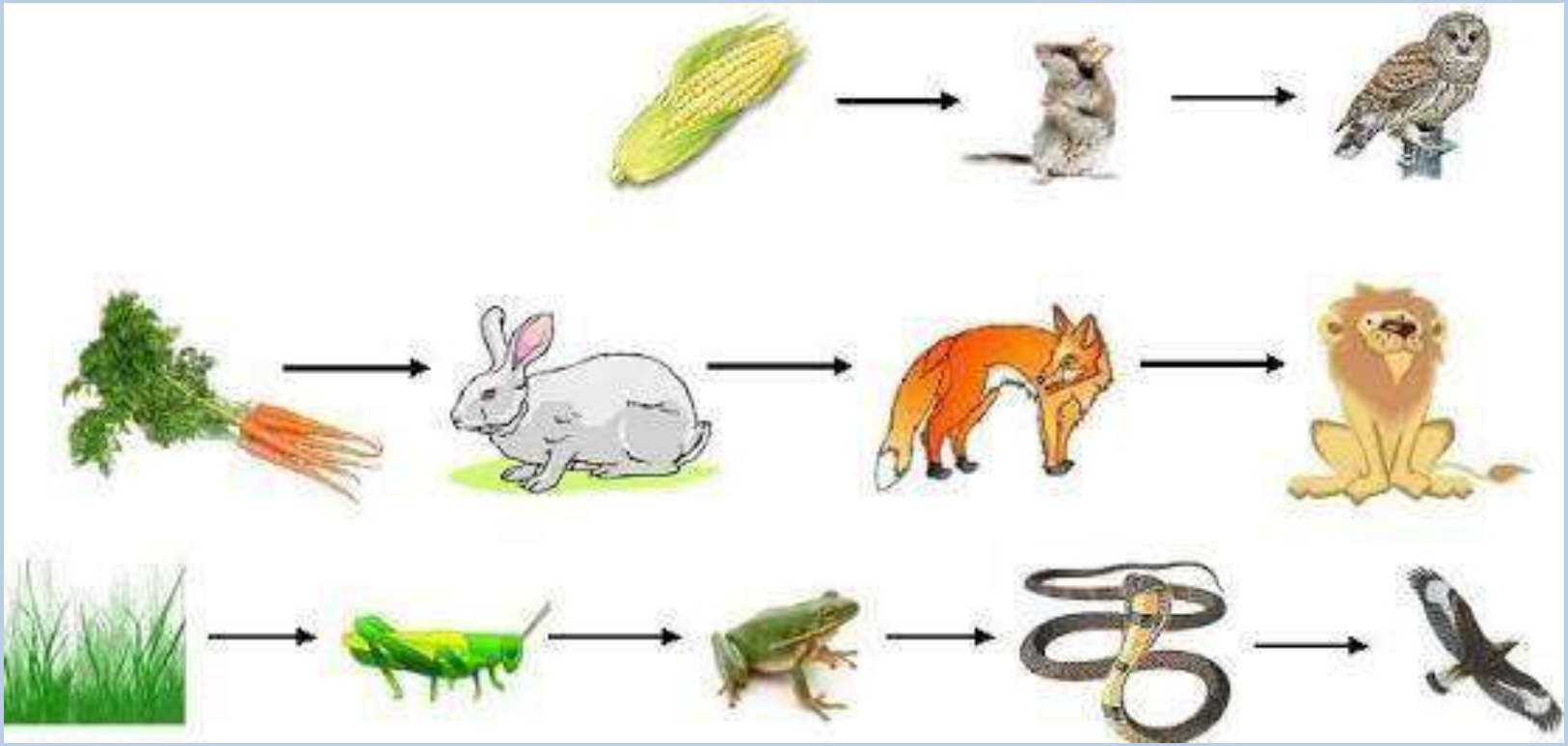
- Food chains show the flow of energy in ecosystems in one direction, from producers to consumers

Energy Flow in Ecosystems

- In groups write a food chain out of the following organisms:

1. Bird
2. Berry
3. Fox
4. Insects

Energy Flow in Ecosystems



Energy Flow in Ecosystems

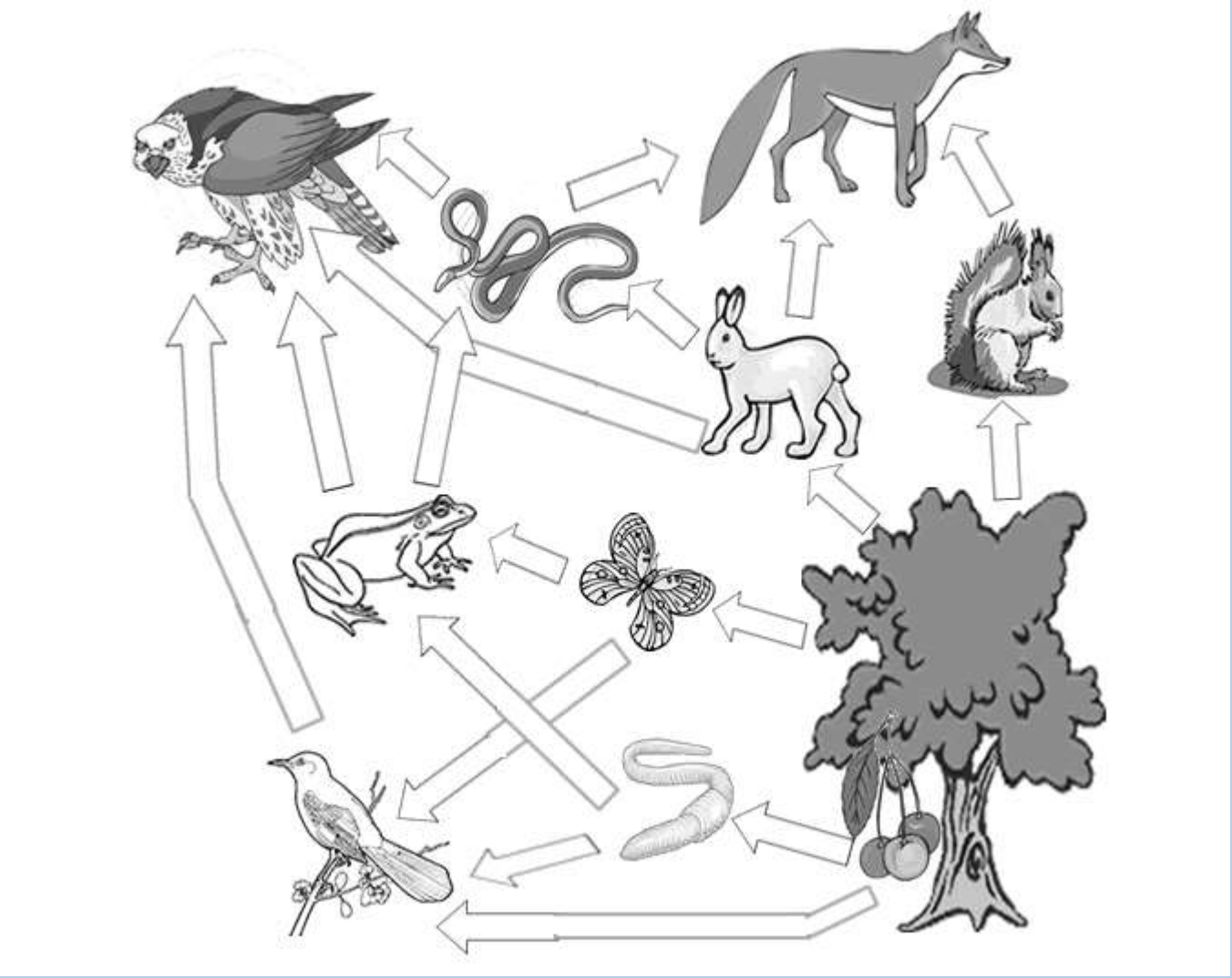
- Food webs show every feeding interaction in an ecosystem

Energy Flow in Ecosystems

- In groups write a food web out of the following organisms:

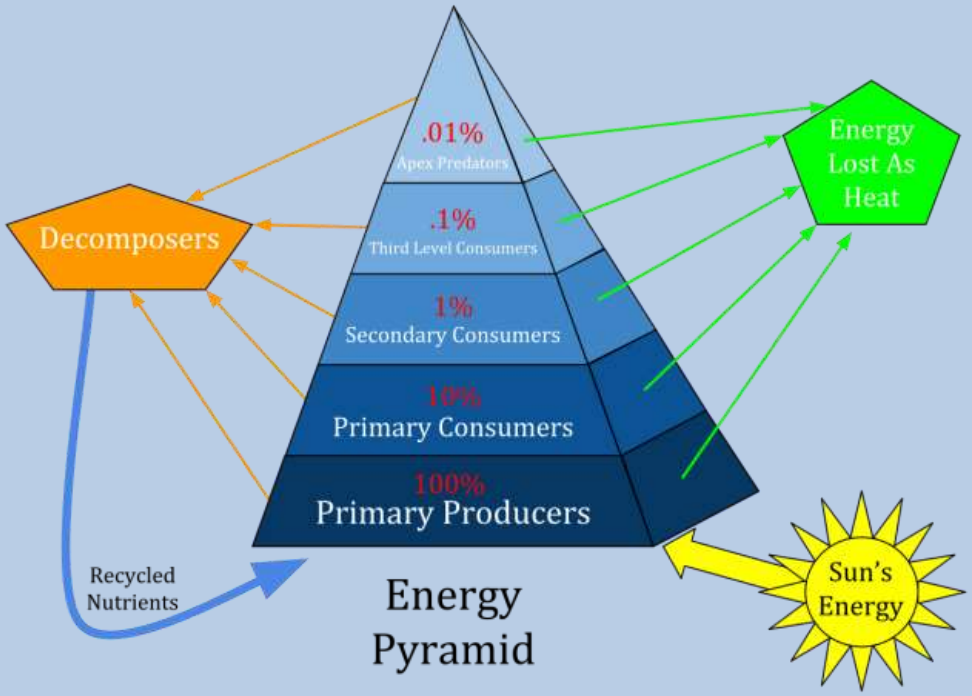
1. Bird
2. Cherry Tree
3. Earth Worm
4. Squirrel
5. Rabbit
6. Frog
7. Eagle
8. Fox
9. Butterfly
10. Snake

Energy Flow in Ecosystems



Energy Flow in Ecosystems

- Another way of modeling the flow of energy is through a pyramid of energy



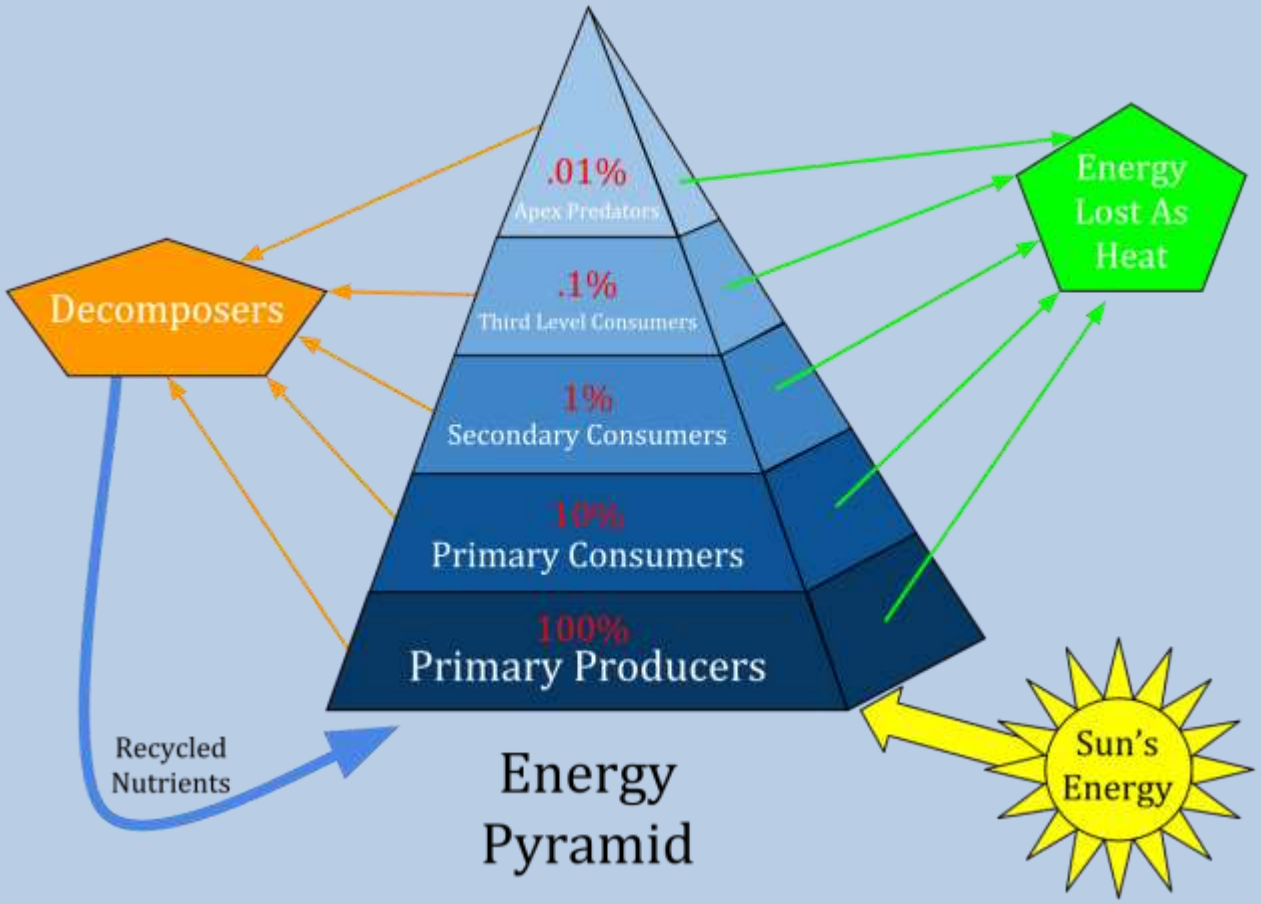
Energy Flow in Ecosystems

- There are 3 kinds of ecological pyramids
  - Energy
  - Biomass
  - Numbers of organisms

Energy Flow in Ecosystems

- **Biomass: total amount of living tissue measured in grams**

Energy Flow in Ecosystems



Energy Flow in Ecosystems

- You will complete the pyramid activity to understand what each one models