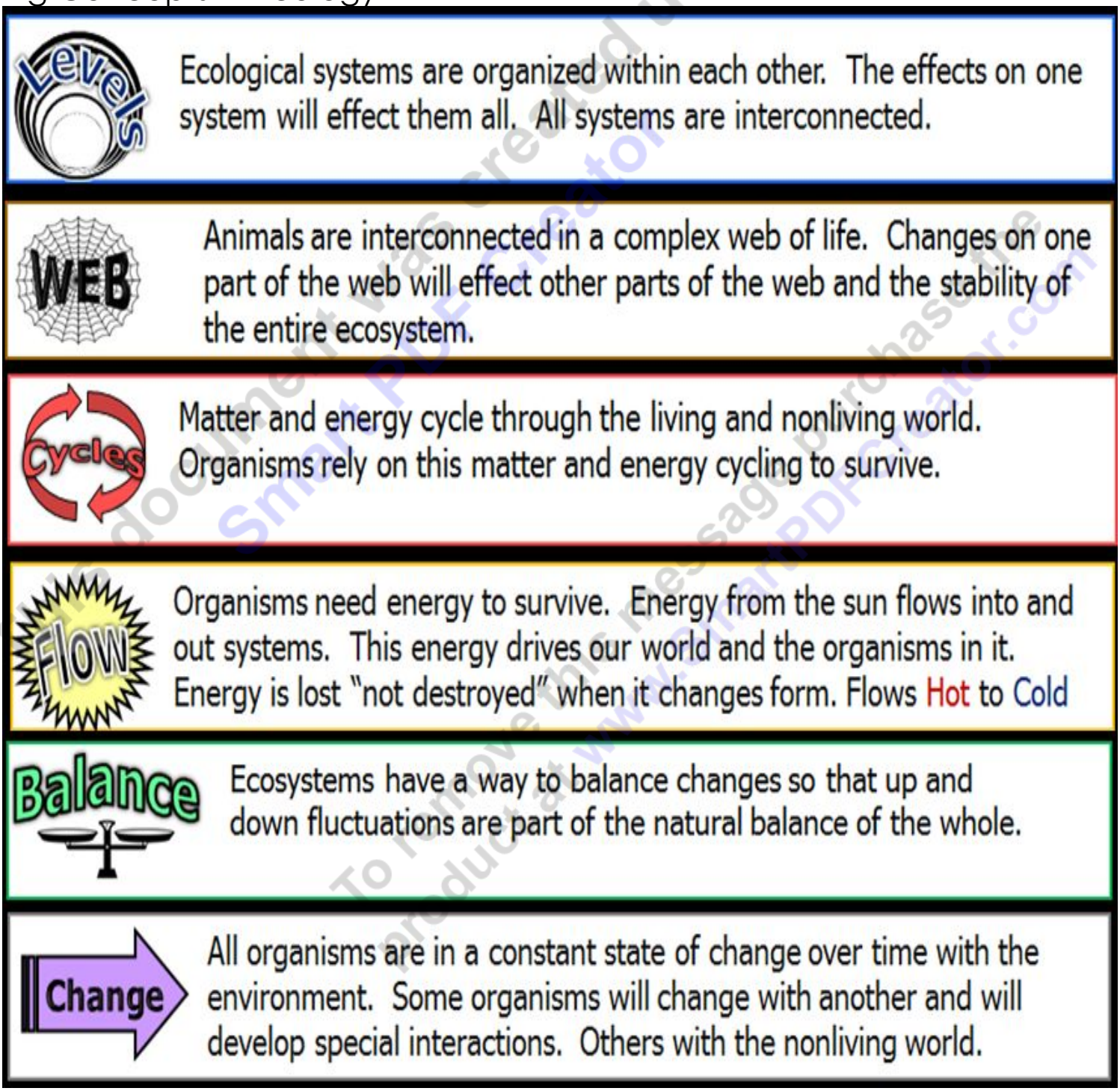
Ecology: Feeding Levels Unit Notes

(DO NOT LOSE) Name:_____

Ecology: The study of the relationships between living things and the environment.

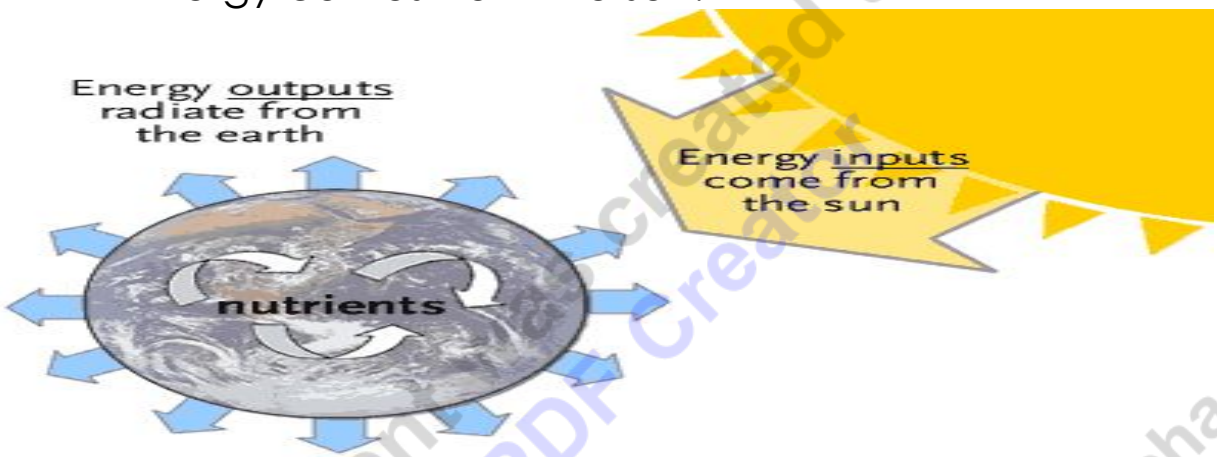
Big Concepts in Ecology



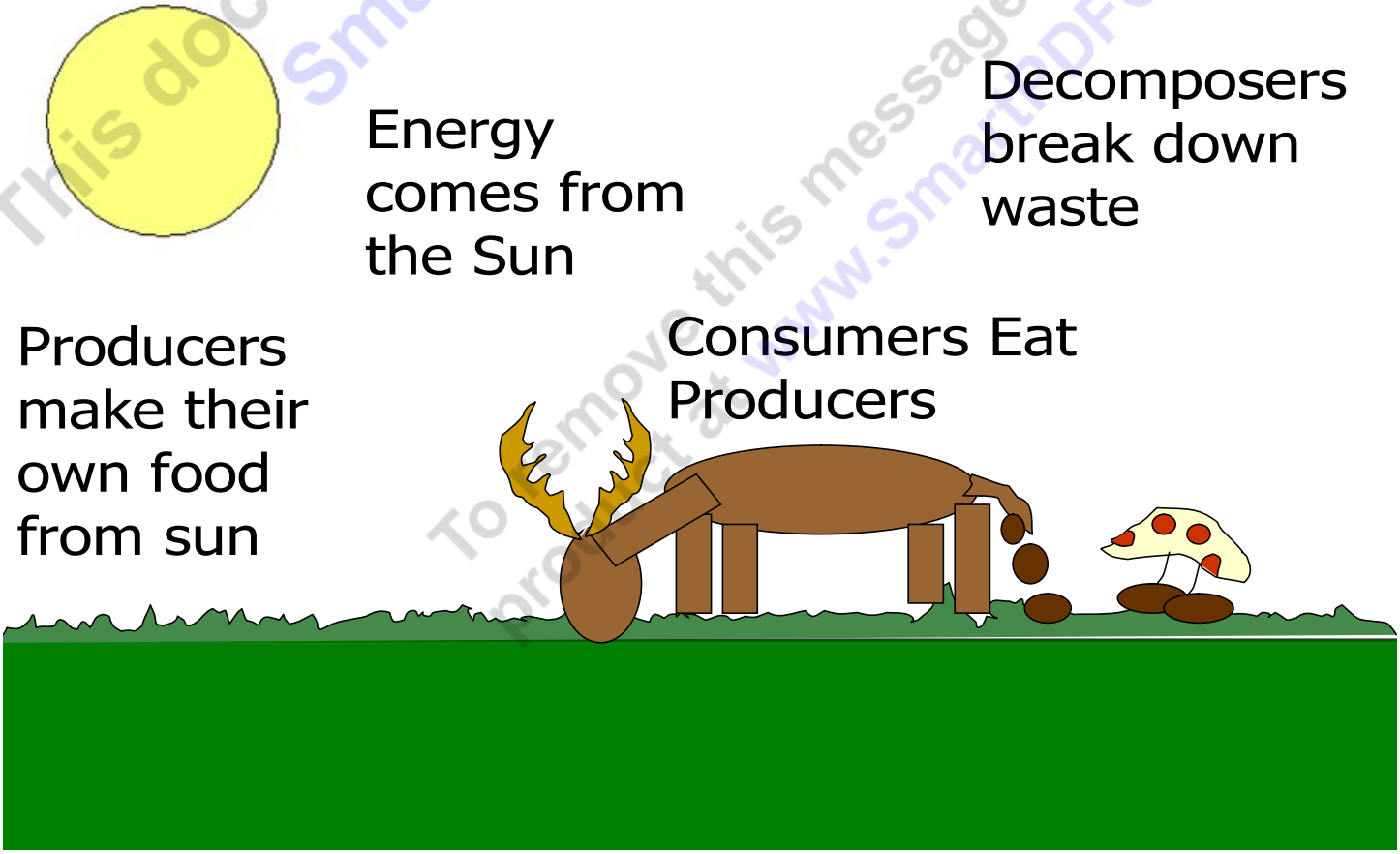
There's No Such Thing As A Free Lunch (FLOW)

- Laws of Thermodynamics (Heat and Energy)
  - Heat flows from warm to cold.
  - Energy cannot be created or destroyed; it can be transferred between systems and surroundings.
  - Energy goes from useful to non useful.

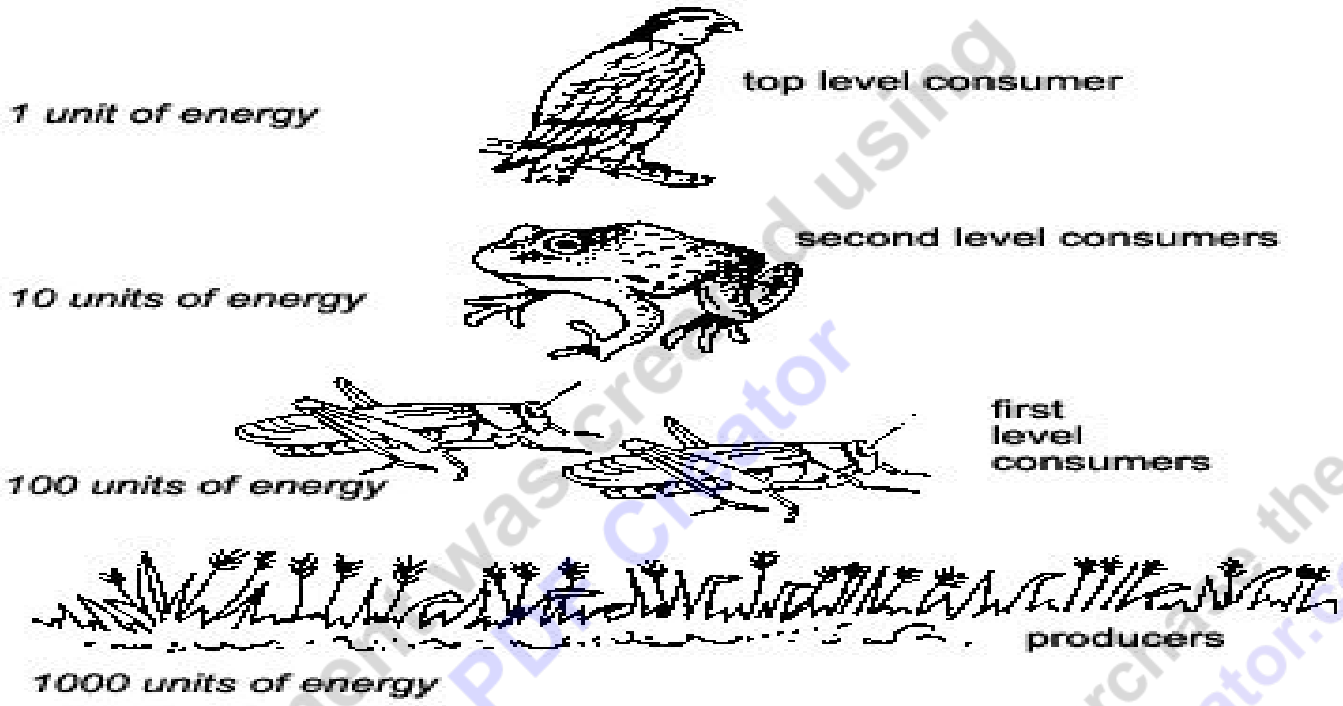
Energy comes from the sun.



Food Chain: A community of organisms where each member is eaten in turn by another member.



Trophic Feeding Levels



Producers-Organisms that make their own food.

Consumers: Feed on plants or other animals.

Herbivore: General name for an animal that only eats plants.

Carnivore: An animal that only eats other animals.

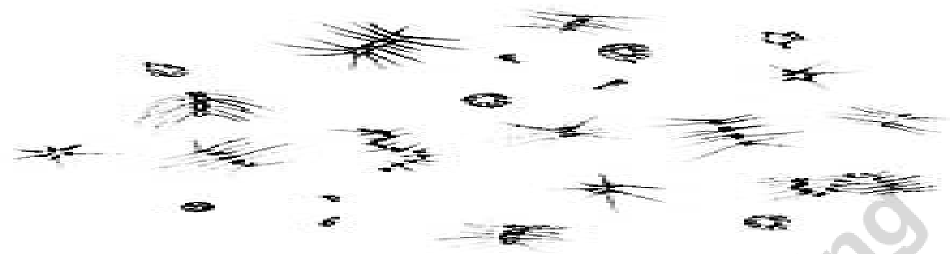
Omnivore: An organism that eats both plants and animals.

Opportunistic: Eat everything + scavenge.

Decomposer: Organisms that feed on organic matter.

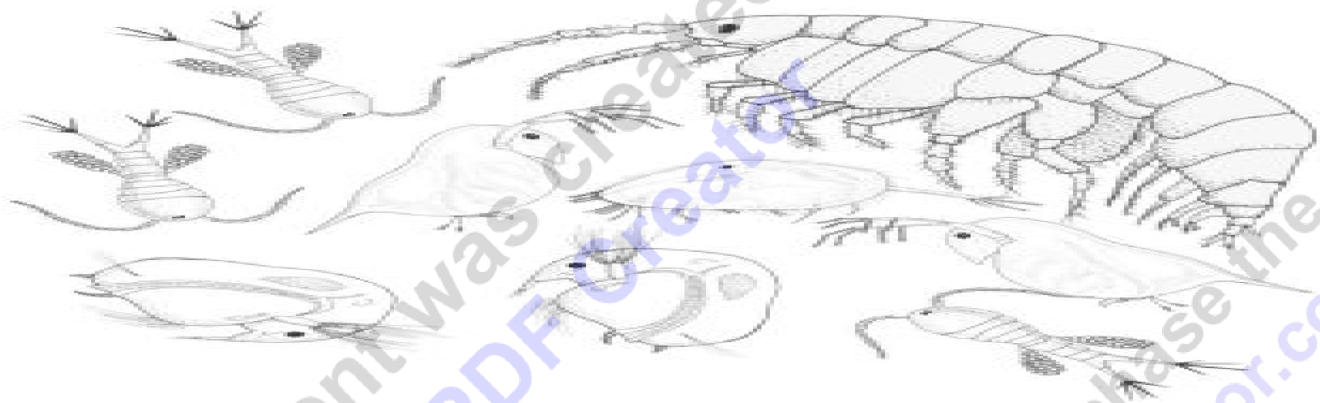
- Called detritivores
- Return nutrients to soil.

Phytoplankton: Very small free floating aquatic plants that get energy from sun.



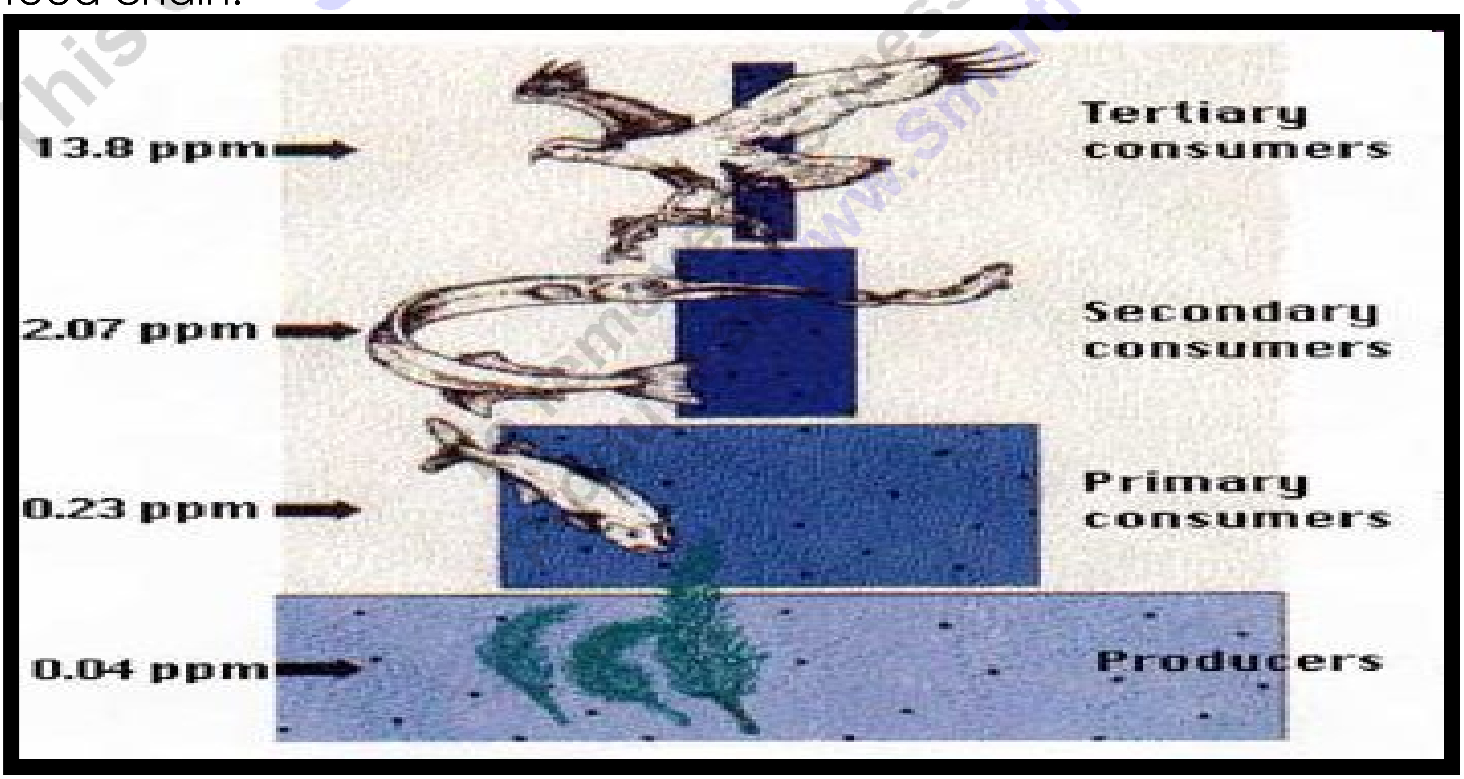
Zooplankton: Tiny animals that cannot make their own food.

- Many eat phytoplankton.

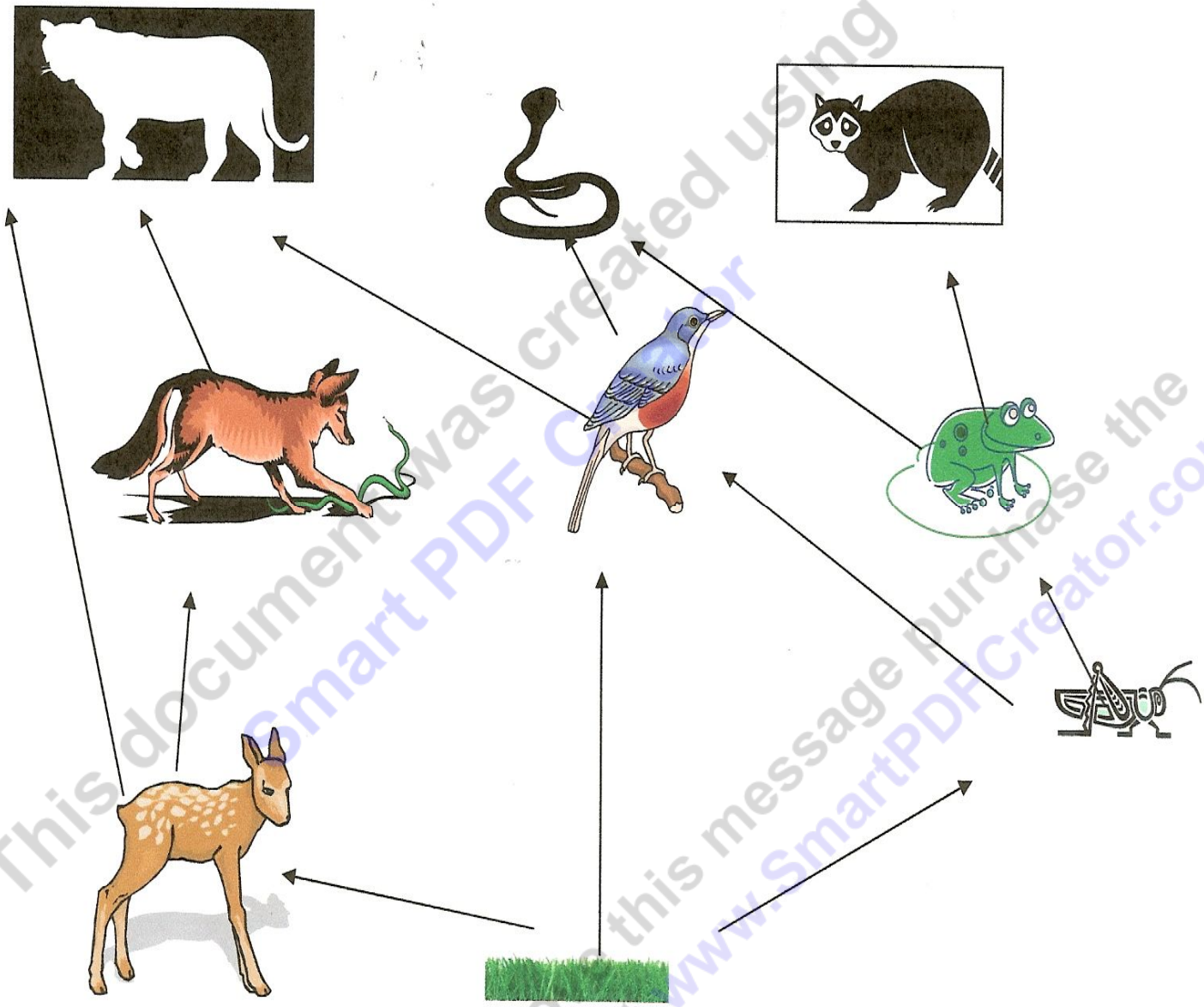


Bioaccumulation: The process whereby an increasing amount of pollutants are concentrated in the cells of plants and animals.

Biomagnification: When contaminants increase at each step of the food chain.

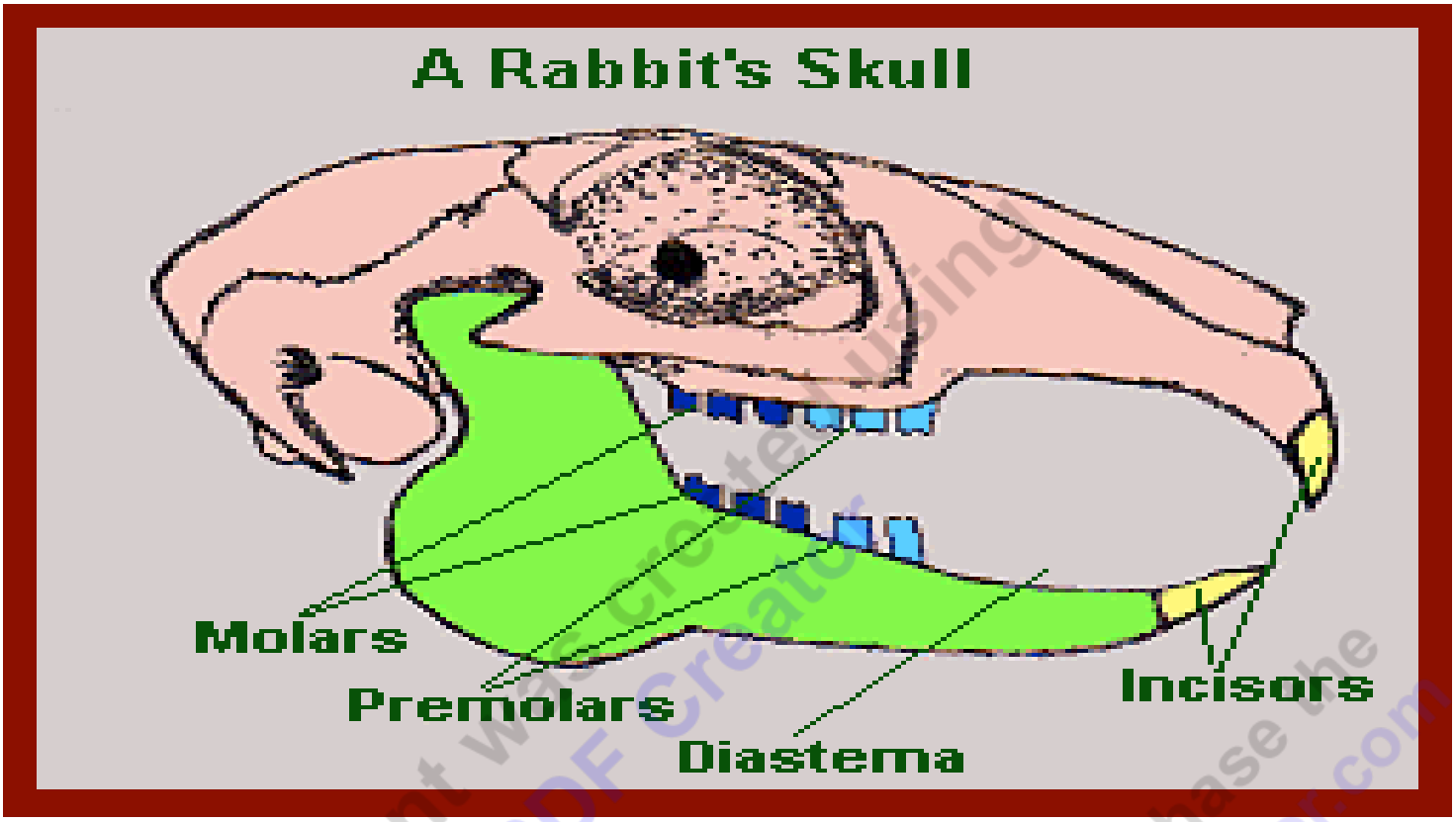


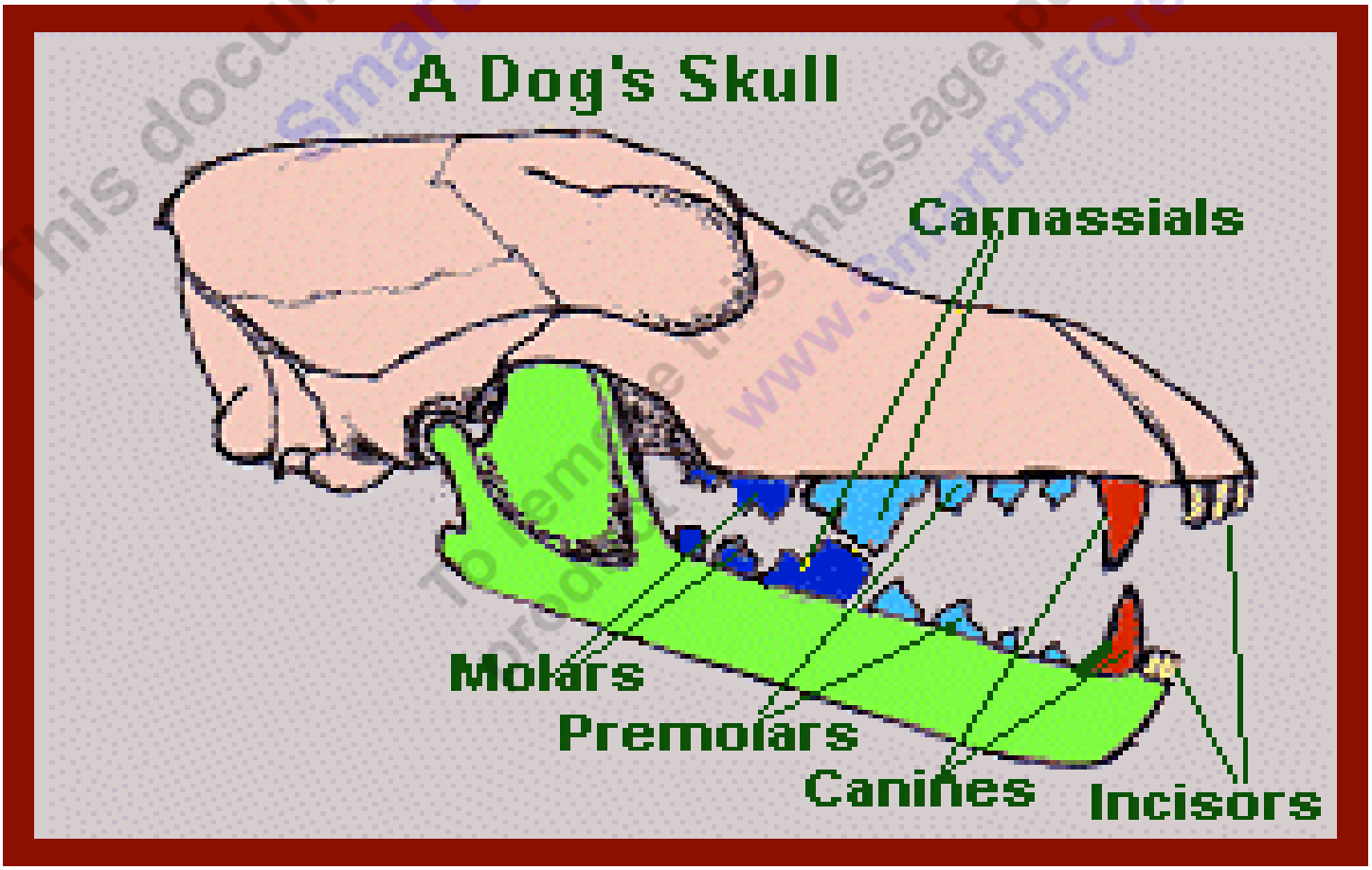
- Food Web: A complex network of many interconnected food chains and feeding interactions.



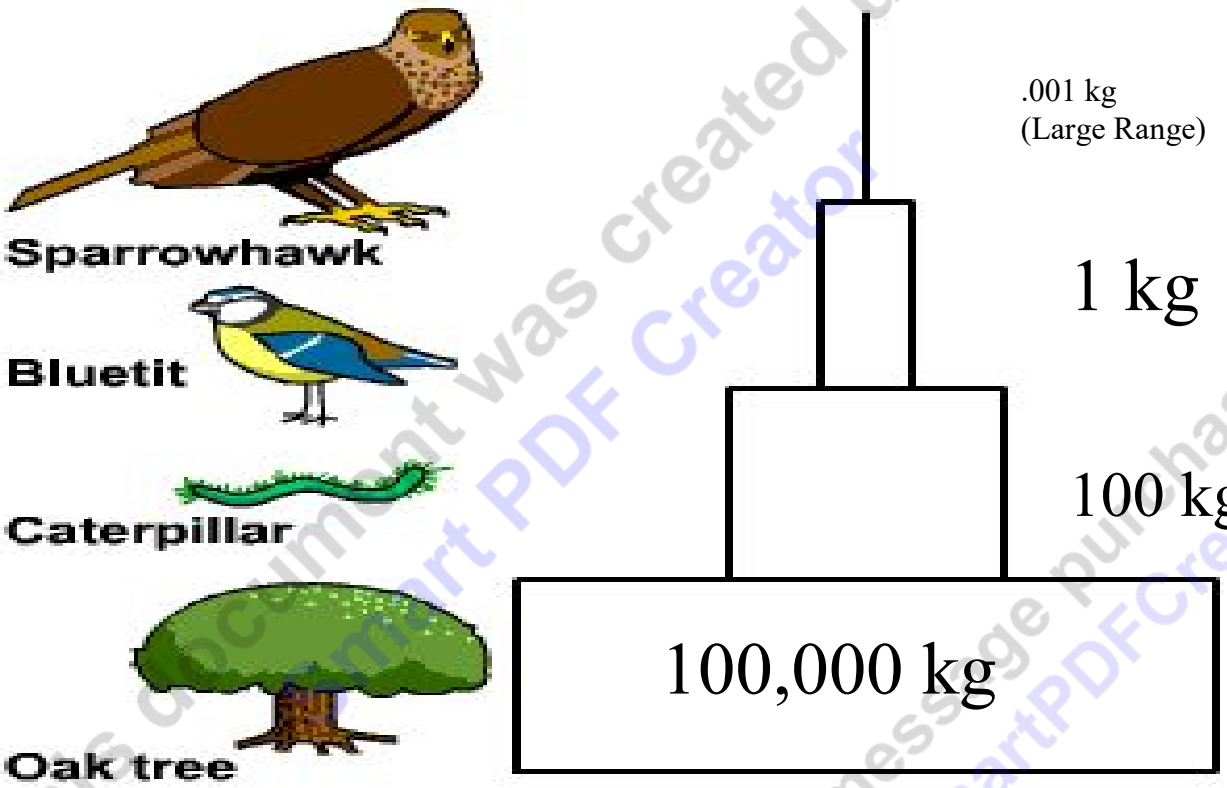
Animal Dentition

- Incisors = For cutting.
- Canines: For stabbing and killing, tearing and piercing.
- Molars: Larger, crushing and grinding food.
  - **Diastema**: A large gap between adjacent teeth, normally between the incisors and chewing teeth.





Pyramid of Biomass- the total mass (quantity) at each level trophic level.



Biomass decreases as you move up the pyramid from the producers, to the consumers, to the 2nd order consumers.

Pyramid of numbers: The total numbers of individuals at each level.

- Available energy decreases as you move up the pyramid.
  - The tree 100,000 leaves
  - 1,000 caterpillars
  - 10 small birds
  - 1 hawk

Important Vocabulary

Food Chain: Group of organisms that feed upon another group.

Food Web: A complex network of many interconnected food chains and feeding interactions.

Ecology	Study of organisms in environment
Producer	An organisms that makes its own food
Consumer	An organisms that eats food
Decomposer	An organism that breaks down waste
Organism	A living thing
Phytoplankton	Tiny organisms that make their food
Zooplankton	Tiny organism that eats food
Aquatic	Living in water
Biomass	Weight of living material
Inorganic	Not living
Nutrients	Chemicals living things need
Ecosystem	The place a group of organisms lives.
Cycle	To repeat
Concentrated	To gather together
Cells	Small unit of life
Biomagnification	When pollution increases up food chain