

Chapter 3-1 & 3-2

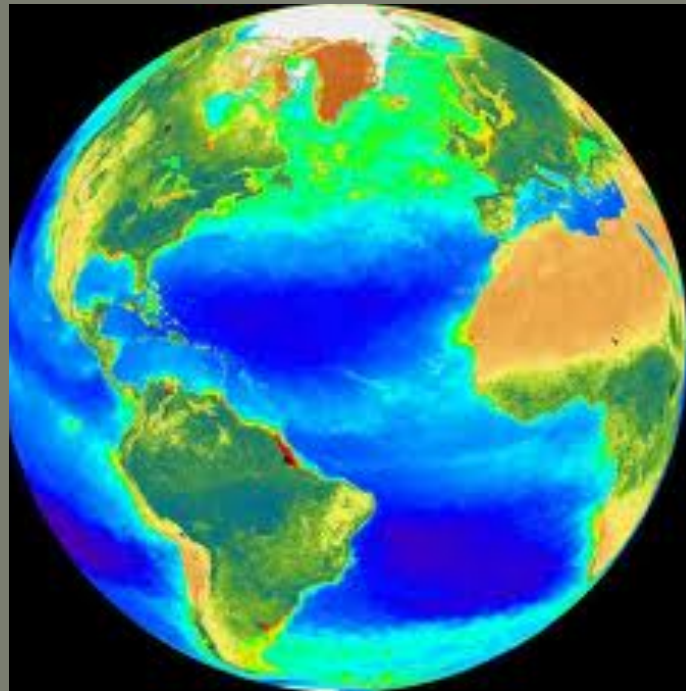
Ecology & Energy Flow

Essential Questions:

- What are the different levels of organization that ecologists study?
- What are methods of ecological study?
- What is the source of energy for life processes?
- How does energy flows through living systems?
- How efficient is energy transfer among organisms?

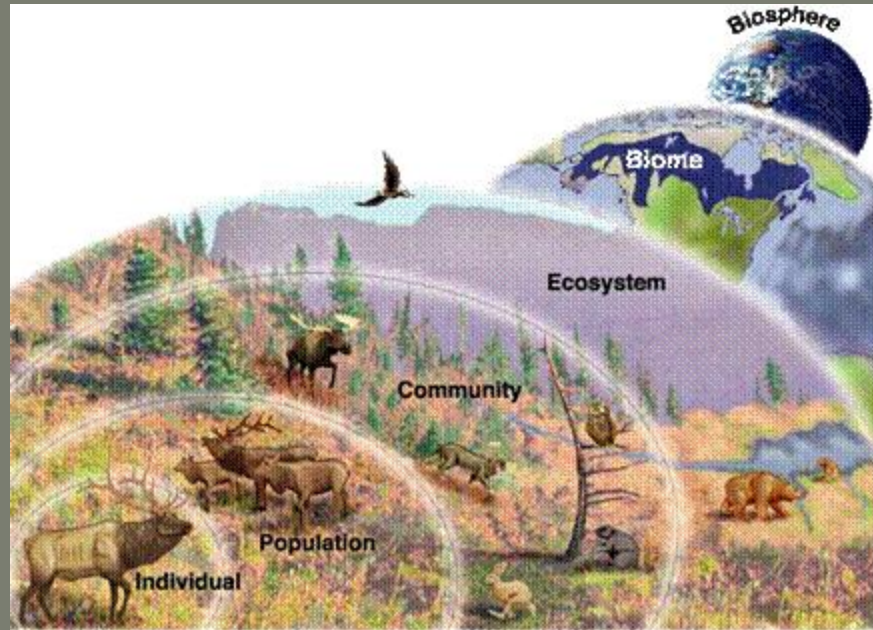
3-1 What Is Ecology?

- Interactions and Interdependence
 - Ecology
 - Biosphere



- Levels of Organization

- Species → population → community → ecosystem → biome → biosphere



- Ecological Methods
 - Observing
 - Experimenting
 - Modeling

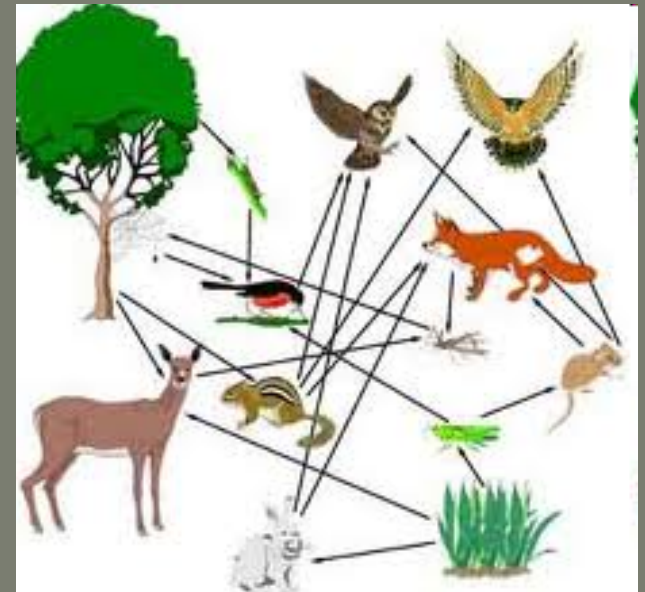
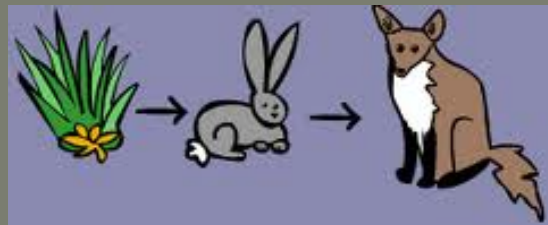


3–2 Energy Flow

- Producers
 - photosynthesis
 - chemosynthesis
 - Autotrophs



- Consumers = heterotrophs
- Feeding Relationships
 - energy flows in ONE DIRECTION
 - Food Chains
 - Food Webs
 - Trophic Levels



- Ecological Pyramids
 - Energy Pyramid



- Biomass Pyramid
- Pyramid of Numbers

