

Basic concepts of biology

Organization of nature

Biosphere, ecosystem (EX: Florida Coast), community (organisms of the same ecosystem), population (EX: group of brown pelicans), organism (EX: brown pelican), organ system (EX: nervous system), organ (EX: brain), tissue (EX: nervous tissue), cell (EX: nerve cell), organelle (EX: nucleus), molecule (EX: DNA)

PRODUCERS:

- provide the food for a typical ecosystem
- photosynthetic organisms

CONSUMERS:

- eats plants/other animals
- take in oxygen produced by plants
- wastes return other chemicals to the environment

DECOMPOSERS:

- decomposes waste and remains
- act as recyclers
- change complex matter into simpler mineral nutrients (used by plants)

FOUNDATION FOR THE UNITY OF LIFE:

- order: all living things exhibit complex organization (EX: sunflower seeds in a sunflower plant)
- regulation: organisms maintain their internal environment (homeostasis)
- growth& development: inherited information carried by genes controls the pattern of growth and development
- energy and processing: organisms take in energy and transform it to perform in life activities
- respond to its environment: responds to environmental stimuli
- reproduction: reproduce its own kind
- evolutionary adaptation: adaptations suited to their environments and are passed to offspring

PROKARYOTIC CELLS:

EUKARYOTIC CELLS: