

Ecology

Ecology is the scientific study of interactions among organisms and between organisms and their environment or surroundings.

tissue - group of similar cells that performs a particular function.
- four main types: muscle, epithelial, nervous and connective

- 1) *muscle tissue* - enables the body to move.
- 2) *epithelial tissue* - cover interior and exterior body surfaces.
- 3) *nervous* - transmits nerve impulses throughout the body.
- 4) *connective* - provides support for the body and connects its parts.

organ - a group of different types of tissues that work together to perform a single function.

ex: The eye is made up of epithelial tissue, nervous tissue, muscle tissue and connective tissue.

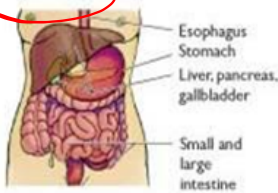
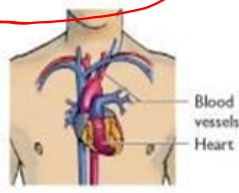
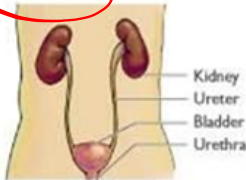
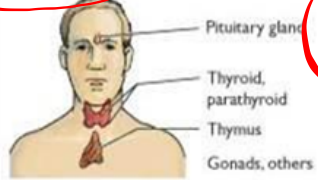
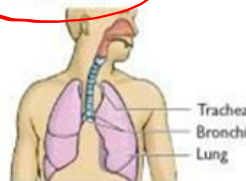
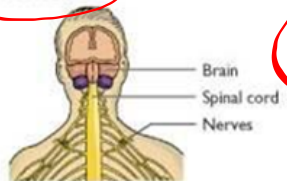
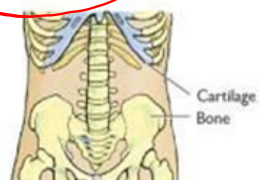
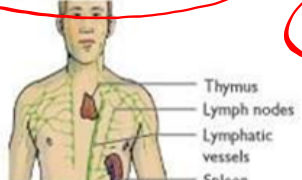

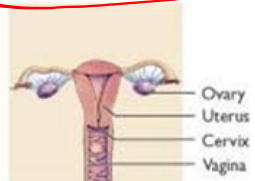

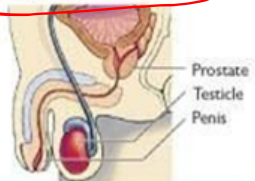
organ system - a group of organs that perform closely related functions.
- the human body has eleven organ systems...

nervous system
integumentary system
respiratory system
digestive system
excretory system
skeletal system
muscular system
circulatory system
endocrine system
reproductive system
lymphatic/immune system



KNOW the NAME and it's FUNCTION...

TABLE 5.1 | Organs and Functions of the Human Organ Systems

Organ System	Function	Organ System	Function
Digestive  <p>Esophagus Stomach Liver, pancreas, gallbladder Small and large intestine</p>	Ingests and breaks down food so that it can be absorbed by the body Chapter 7	Cardiovascular  <p>Blood vessels Heart</p>	Enables the transport of nutrients, gases, hormones, and wastes to and from cells of the body Chapter 9
Urinary  <p>Kidney Ureter Bladder Urethra</p>	Eliminates liquid wastes; regulates water balance Chapter 11	Endocrine  <p>Pituitary gland Thyroid, parathyroid Thymus Gonads, others</p>	Secretes hormones into bloodstream for regulation of body activities Chapter 16
Respiratory  <p>Trachea Bronchi Lung</p>	Enables gas exchange, supplying blood with oxygen and removing carbon dioxide Chapter 10	Nervous  <p>Brain Spinal cord Nerves</p>	Senses environment; communicates with and activates other parts of the body Chapters 14 and 15
Skeletal  <p>Cartilage Bone</p>	Provides mechanical support for the body; stores minerals; produces red blood cells Chapter 6	Lymphatic and Immune  <p>Thymus Lymph nodes Lymphatic vessels Spleen</p>	Protects against infections Chapter 12
Muscular  <p>Skeletal muscles</p>	Enables movement, posture, and balance via contraction and extension of muscles Chapter 6	Reproductive—Female  <p>Ovary Uterus Cervix Vagina</p>	Produces eggs and supports the development of offspring Chapter 18
Integumentary  <p>Hair Nails Skin</p>	Protects body from environment, injury, and infection; stores fat Chapter 6	Reproductive—Male  <p>Prostate Testicle Penis</p>	Produces and delivers sperm and associated fluids Chapter 18

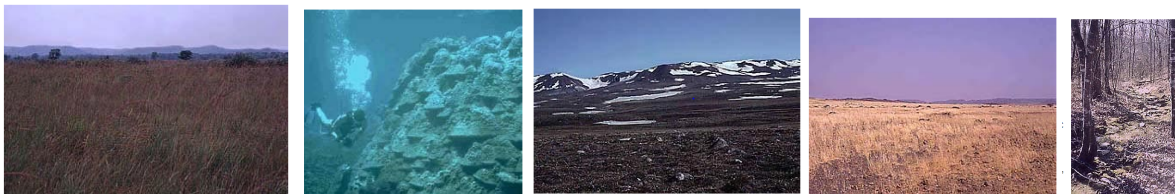
NOTES - Ecological Organization.pdf

Levels of Ecological Organization

The levels of organization studied by ecologists are organisms, species, populations, communities, ecosystems, biomes and finally the biosphere.

- **Organism** - an individual living thing.
- **Species** - group of individuals that are closely related and can mate to produce fertile offspring.
(don't have to be in the same place)
- **Population** - all the members of the same species that live in the same place at the same time.
- **Community** - a group of various species that live in the same place and interact with each other.
- **Ecosystem** - a collection of all the organisms that live in a particular place together with their nonliving, or physical environment

- **biome** - a group of terrestrial communities that covers a large area and is characterized by certian soil and climate conditions and particular assemblages of plants and animals



Five Major Types of Biomes

Aquatic
Deserts
Forests
Grasslands
Tundra

- **biosphere** - contains the combined portions of the planet in which all life exists, including land, water, and air, or atmosphere.
 - extends from about 8 km above Earth's surface to as far as 11 km below the surface of the ocean
-

Biosphere 2
???



Only
Special
People
Can
Eat
Baked
Beans

Organism
Species
Populations
Communities
Ecosystem
Biome
Biosphere

7
7

Cell

Tissue

Organ

Organ System

CToo's

Attachments

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