Ecology

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

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Organizaon of Life

The levels of organization in a multicellular organism are individual cells, tissues, organs and organ systems..

cell - the basic unit of all forms of life.

EXAMPLE: Animal Cell 4 CYTOSKELETON: supports organelle 5 NUCLEUS: command center of cell 6 Smooth endoplasmic reticulum: sy Nucleolus: site where ribosomes are produced Microtubule: tube of protein molecules Nuclear envelope: double membrane between the Intermediate filament: intertwined Nuclear pore: opening embedded with proteins that regulates passage into and out of the nucleus 6 Rough endoplasmic-reticulum: internal membranes studded with Actin filament: twisted protein fibers that are responsible for cell movement Ribosomes: small complexes of RNA and protein that are the sites of protein synthesis Centriole: complex assembly of -Peroxisome: 2 Cytoplasm: semifluid matrix that contains the 2 Mitochondrion: Secretory vesicle: Plasma membrane: CHIND -Lipid bilayer Lysosome: Membrane protein Golgi complex:

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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.

<u>organ</u> - 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 haseleven 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

Check out PowerPoint review



KNOW the NAME and it's FUNCTION..

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

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Inside the Human Body
National Geographic
(Nine Parts: 1 to Middle of 5)

We watched up to part 2.