

Review 01

Levels of Biological Organization

this term:

cells

tissues

organs

organ systems

organisms

Essential life processes of animals and their adaptations

✓Obtaining materials and energy from the environment

DIGESTIVE SYSTEM

✓Exchanging gases with the environment

RESPIRATORY SYSTEM

✓Getting rid of wastes

DIGESTIVE, URINARY, RESPIRATORY (CO₂) SYSTEMS AND EXCRETION

✓Distributing materials within the body

CIRCULATORY SYSTEM

✓Defending the body from biological attack

IMMUNE SYSTEM FOR DISEASE, PARASITES, CANCER

NERVOUS & SKELETO-MUSCULAR SYSTEMS FOR PREDATORS, ETC.

✓Defending the body from physical attack

KIDNEYS (WATER BALANCE)

✓Maintaining a constant internal environment

HOMEOSTASIS

✓Coordinating body activities

NERVOUS AND ENDOCRINE (HORMONE) SYSTEMS

✓Reproducing

REPRODUCTIVE SYSTEM

Cells

structure

function

Tissues--review Exercise 1 in the lab manual

epithelial.....covers surfaces--protection, absorption, excretion;

glands

connective.....bind, support, protect, store, distribute, etc.--living cells among non-living matrix; e.g. bone, cartilage, fat, blood

muscle.....contract (shorten) in length; e.g. skeletal, cardiac, smooth

nervous.....rapidly conduct information from point to point within body