

Cell Function

Standard III Objective 2: Identify and describe the function and inter-dependence of various organs and tissues.

Enduring Understanding: Cells combine to form tissues which combine to form organs. Organs combine to form organ systems which combine to form organisms.

Essential Questions:

1. How are the cells organized to form a living thing?
2. What are the needs of living things and how are those needs met?

Cell: _____



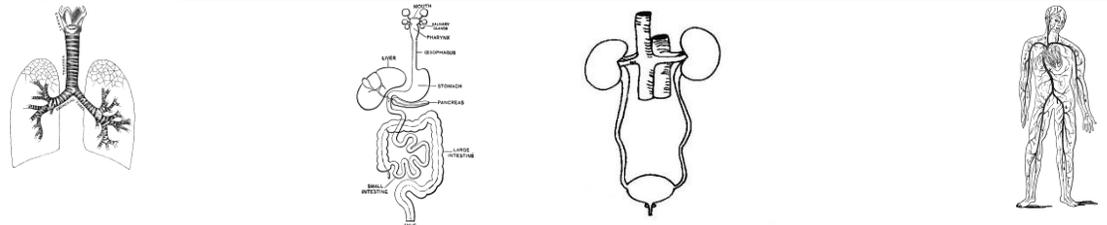
Tissue: _____



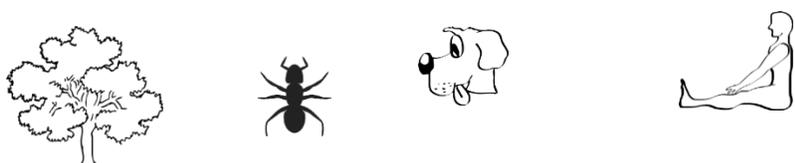
Organ: _____



Organ System: _____



Organism: _____



Parent Signature: _____

X My child studied for at least 15 minutes and taught someone in our family this information.

Organization Study Guide

All living things are made of CELLS. CELLS come together to form TISSUE. TISSUE comes together to form ORGANS. A group of similar ORGANS work together to form ORGAN SYSTEMS and all of the ORGAN SYSTEMS in a body form the ORGANISM.

Example: Nerve CELL---Nervous TISSUE---Brain is the ORGAN---Brain and spinal cord form the ORGAN SYSTEM and the digestive, nervous, skeleton etc systems form the ORGANISM

Example: Stomach CELL---Muscle TISSUE and Smooth TISSUE---Stomach is the ORGAN—Stomach and intestines and colon form the ORGAN SYSTEM-- and the digestive, nervous, skeleton etc systems form the Organism

SYSTEM	ORGANS	TISSUES Examples	CELL Examples	FUNCTION OF SYSTEM
Nervous	Brain , Spinal Cord, Nerves	Nervous	Nerve Cell	To transmit electrical signals throughout the body
Digestive	Mouth, Esophagus, Stomach, Small Intestine, Large Intestine, Colon	Smooth and Muscle	Stomach or Liver Cell	To break down and digest or absorb food.
Skeletal	Bones (there are 206)	Bone Tissue	Bone Cell	To give Structure and Support, to make blood, and store calcium
Respiratory	Lungs, Trachea, Bronchi	Alveoli, Lung Tissue	Lung Cell	To take in oxygen and release carbon dioxide
Circulatory	Heart, Veins, Arteries	Smooth Tissue, cardiac tissue, muscle tissue	Muscle cell or cardiac cell	To transport food, water, chemicals, waste and gasses throughout the body
Immune	Tonsils, Lymph Nodes , Spleen, Thymus	Bone tissue	Muscle Cell	To fight infection and illnesses and to help heal injuries
Muscular	Each individual muscle	Muscle Tissue	Tissue Cell	Movement, Breathing, Heart pumping
Excretory (Urinary)	Bladder and Kidneys	Kidney Tissue	Kidney Cell	To filter the blood and excrete waste as urine

Know the pathway food takes: Mouth-esophagus-stomach-small intestine-large intestine-rectum

A cat is an organism---

It has a digestive system---

Which is made up of organs like the stomach—

which is made of tissue like smooth and muscle tissue—

which is made of cells!!!

