

Science 8
Unit 4: Cells, Tissues, Organs and Systems
Topic 5: Tissues, Organs and Systems



Student Name: _____

Tissues:

- Groups of similar cells
- Found in all multicellular organisms
- Ex. Muscle tissue, nerve tissue, epithelial tissue, etc

Organs:

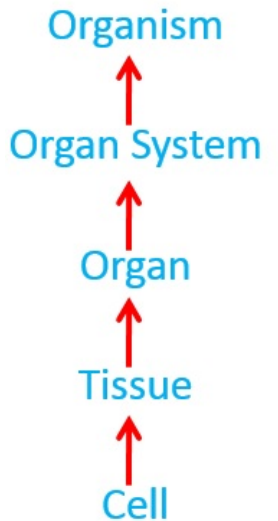
- Groups of tissues. Made up of two or more types of tissues.
- They are distinct structures that perform specific functions.
- Ex. Lungs, kidneys, heart, etc.

All systems have the following characteristics:

- Made up of individual parts that work together as a whole
- Often connected to one or more systems. If one part of a system is missing or damaged, the system will not function well or may not function at all.
- There are 11 systems in the human body

Organ Systems:

A group of organs that perform activities that help the body as a whole. 6 examples of organ systems are...



System	Function	Consist of
Digestive System	To take in and break down food, absorb nutrients, and eliminate solid waste.	Small Intestine Liver Large Intestine Pancreas Esophagus Stomach Gall Bladder Mouth
Circulatory System	To transport blood, nutrients (chemicals needed for survival), gases and wastes.	Heart Arteries, Veins Capillaries
Nervous System	To detect changes in the environment and to signal these changes to the body which then carries out a response	Brain Spinal cord Nerves Sense organs
Respiratory System	To control breathing, and exchange gases in lungs and tissues	Nasal cavity Trachea Lungs
Excretory System	To remove liquid and gas wastes from the body	Lungs Kidneys Urinary bladder
Muscular System	To work with the bones to move body parts	Muscle tissue connected to bones throughout the body.

PART A: MULTIPLE CHOICE

Instructions: Shade the letter of the correct answer on the computer scorable answer sheet provided.

1. What is the basic unit of all life?
 - (A) Cell
 - (B) Microbe
 - (C) Organ
 - (D) Tissue

2. Which of the following refers to a group of similar cells performing the same function?
 - (A) Cell
 - (B) Organ
 - (C) System
 - (D) Tissue

3. Which tissues helps with movement within the body?
 - (A) Connective tissue
 - (B) Skin tissues
 - (C) Muscle tissue
 - (D) Nerve tissue

4. Which of the following refers to a collection of tissues that perform a particular function?
 - (A) Cells
 - (B) Muscle
 - (C) Organ
 - (D) Tissue

5. Which of the following is an example of organ in human beings?
 - (A) heart
 - (B) lungs
 - (C) stomach
 - (D) All of them

6. What body system that is responsible for breaking down your food to usable nutrients ?
 - (A) Respiratory system
 - (B) Digestive system
 - (C) Circulatory system
 - (D) Excretory system

7. Which body system that is responsible for balancing the water in your body?
 - (A) Respiratory system
 - (B) Digestive system
 - (C) Circulatory system
 - (D) Excretory system

8. Which body system that is responsible bringing in oxygen and removing carbon dioxide?
 - (A) Respiratory system
 - (B) Digestive system
 - (C) Circulatory system
 - (D) Excretory system

9. Which body system that has the pancreas, gall bladder, and liver?
 - (A) Circulatory system
 - (B) Digestive system
 - (C) Excretory system
 - (D) Respiratory system

10. Which body system has the heart, veins, and arteries?
 - (A) Circulatory system
 - (B) Digestive system
 - (C) Excretory system
 - (D) Respiratory system

11. What is the main organ in the excretory system?
 - (A) Kidney
 - (B) Large intestine
 - (C) Lung
 - (D) Small intestine

12. Which body system is most responsible for detecting changes in the environment and responding to them?
 - (A) Circulatory system
 - (B) Digestive system
 - (C) Nervous system
 - (D) Respiratory system

PART B: FILL IN THE BLANK

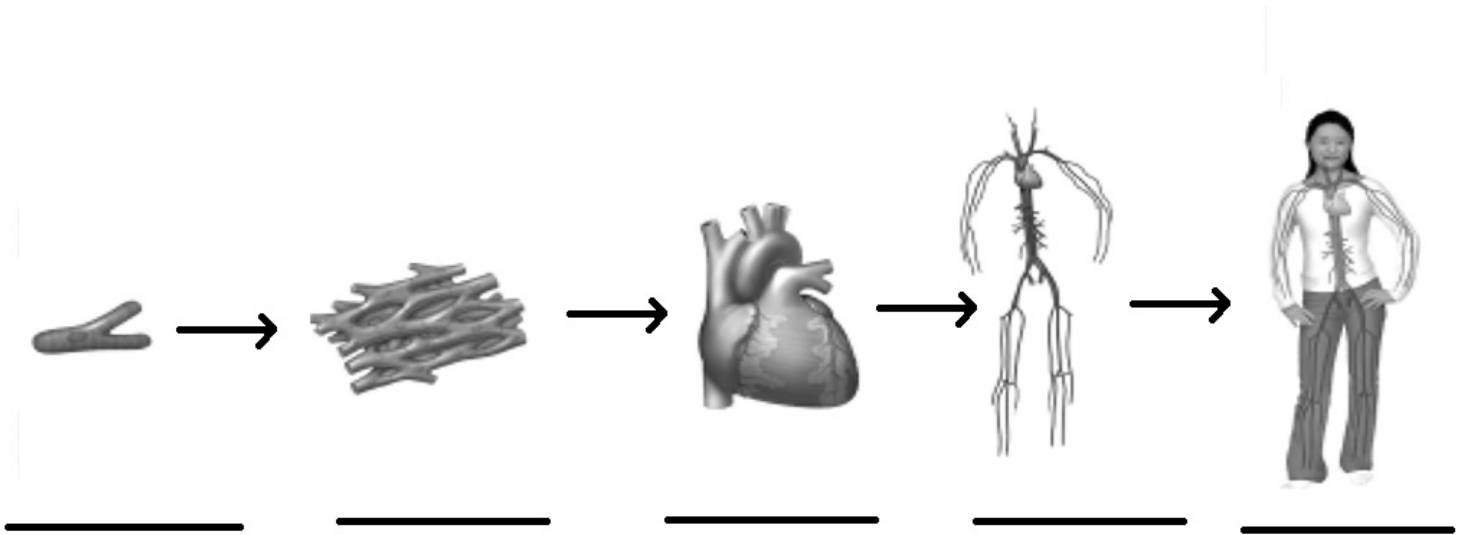
Use the terms in the vocabulary box to fill in the blanks. Use each term only once. You will not need to use every term.

circulatory	reproductive	digestive
respiratory	muscular	excretory
nervous	organ	tissue
cell		

1. The _____ system controls breathing.
2. _____ is a group of tissues working together to perform a task
3. _____ is the basic unit of life
4. The _____ system has bones that support the body and work with muscles to move the body.
5. The _____ system has nerves that detect, signal, and respond to changes in the environment.
6. The _____ system removes liquid and gas wastes from the body.
7. _____ is a group of cells that have the same structure and function.
8. The _____ system takes in and breaks down food, absorbs nutrients, and gets rid of solid waste.
9. The _____ system has muscles that work with bones to move the body.
10. The _____ system moves blood, nutrients, gases, and wastes.

PART C: WRITTEN RESPONSE

1. Label the diagram below:



2. What is a system?

3. What happens if one part of a system is missing or damaged?

4. How are tissues related to cells?


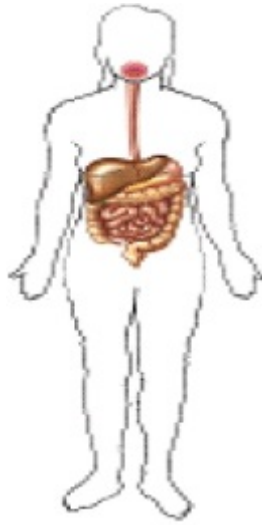
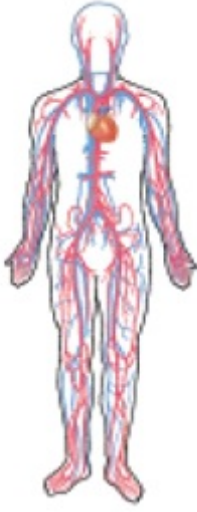



5. How are organs related to tissues?

6. What are the three characteristics of a system?

7. Identify the system of the body to which each of the following organs belongs.

- (a) arteries _____
- (b) liver _____
- (c) kidneys _____
- (d) nose _____
- (e) mouth _____

8. Identify each of the following body systems

 <p>A diagram of a human figure from the front, with the skeletal system highlighted in yellow. The skull, spine, ribs, and leg bones are clearly visible.</p>	 <p>A diagram of a human figure from the front, with the digestive system highlighted in brown and red. The esophagus, stomach, and coiled small and large intestines are shown.</p>
 <p>A diagram of a human figure from the front, with the circulatory system highlighted in red and blue. The heart is in the center, with arteries and veins branching out to the rest of the body.</p>	 <p>A diagram of a human figure from the front, with the respiratory system highlighted in red. The trachea and two lungs are shown.</p>
 <p>A diagram of a human figure from the front, with the urinary system highlighted in orange and red. The two kidneys, ureters, and bladder are shown.</p>	 <p>A diagram of a human figure from the front, with the muscular system highlighted in red and blue. The muscles of the torso, arms, and legs are shown.</p>