

## Pre- Assessment

### Concepts Assessed

Living things are organized structurally from microscopic cells to tissues, organs, and organ systems; within each of these levels, living things demonstrate a structure function relationship in which the way something is designed and built contributes to its ability to perform specific functions; four systems in animals function to transport materials; those systems are the respiratory, circulatory, digestive and excretory systems; each of these systems is made of smaller parts called organs, each with their own function; in addition to a specific function (e.g., digest food), these systems are inter-related (e.g., circulatory and respiratory) to provide nutrients to the body and remove wastes; plant structures also provide transport of nutrients and the removal of waste; roots, stems (xylem and phloem), and leaves are actively involved in the transport; photosynthesis enables plants to make food from carbon dioxide and water in the presence of chlorophyll and sunlight; photosynthesis produces oxygen, which is used by animals and plants in the process of cellular respiration; cellular respiration produces carbon dioxide used by plants creating the photosynthesis/respiration cycle.

**Time** 45 minutes

**Materials** Individual  
Prompt

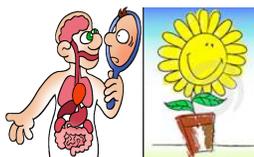
**Advance preparation** 1. Duplicate assessment for each student

### Procedure:

1. Explain that this assessment is to help the teacher and the students tell what they know about transport systems in animals and plants. Explain that they will probably not be able to answer all the questions, but to try to do their best.
2. Explain that you will use the information from this assessment to help determine how best to help them learn more about these systems.

Name: \_\_\_\_\_

Date: \_\_\_\_\_



**Pre-Assessment**

**A: Table**

*Directions: Fill out the chart below. If you have never heard of the term, check the first box. If you have heard the term, but aren't sure what it is, check the second box. If you know this term and can give an example, in the third box, write the definition and give an example.*

Term	I have no idea!	I have heard this term before	I know this term (define the term and give example)
1. structure			
2. function			
3. cell			
4. tissue			
5. organ			
6. respiratory system			
7. circulatory system			
8. digestive system			
9. excretory system			
10. photosynthesis			
11. roots			
12. phloem			

**B. Short Answer**

*Directions: Answer each of the following questions in complete sentences.*

13. What parts of your body do you use to bring in and digest nutrients (food)?

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14. What parts of your body do you use to bring in oxygen?

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15. How does your blood circulate through your body?

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16. How does your body get rid of waste?

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17. How do plant get nutrients (food)?

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18. What plant parts are involved in transporting nutrients and water within the plant?

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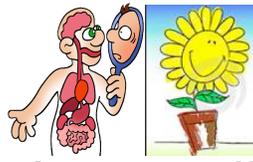
19. The digestion process begins in which of the following?
- a. large intestine
  - b. mouth
  - c. small intestine
  - d. stomach
20. Which list gives the correct order of food traveling through the digestive system after it is swallowed?
- a. stomach, esophagus, large intestine, small intestine
  - b. small intestine, large intestine, esophagus, stomach
  - c. esophagus, stomach, large intestine, small intestine
  - d. Esophagus, stomach, small intestine, large intestine
21. What are the basic structural units of organisms called?
- a. tissues
  - b. cells
  - c. genes
  - d. nucleus
22. What is the name of a collection of cells that work to perform one or more specific functions?
- a. organ
  - b. tissue
  - c. nucleus
  - d. cell system
23. The function of the small intestine is to \_\_\_\_\_.
- a. create white blood cells
  - b. absorb water from food
  - c. absorb nutrients from food
  - d. create hormones

24. A group of organs that function together to perform a certain role in the body is called a (n)\_\_\_\_\_.

- a. cell
- b. organ system
- c. ecosystem
- d. tissue

25. What organ is NOT associated with the digestive system?

- a. liver
- b. kidney
- c. stomach
- d. pancreas



## Pre-Assessment: KEY

### A: Table

*Directions: Fill out the chart below. If you have never heard of the term, check the first box. If you have heard the term, but aren't sure what it is, check the second box. If you know this term and can give an example, in the third box, write the definition and give an example.*

Term	I have no idea!	I have heard this term before	I know this term (define the term and give example) POSSIBLE TYPES OF ANSWERS
1. structure			How something is built or put together; hand made of 5 fingers; elbow joint; a building made of concrete with many floors; football is oval with laces
2. function			The job something does; hand picks up stuff; elbow bends; building hold people; football can be passed or kicked
3. cell			Basic structural unit of all living things. Blood, muscle skin cells
4. tissue			Made up of the same types of cells to do a similar task; nervous, muscle; skin
5. organ			Made of different types of cells that work as a unit like the heart which has muscle, nervous and covering tissue
6. respiratory system			A combination of parts (organs) that work together to help living things exchange gases. Organs include trachea, bronchi, alveoli, lungs
7. circulatory system			A combination of parts (organs) that work together to help living things pump blood. Organs include heart, veins, arteries, capillaries
8. digestive system			A combination of parts (organs) that work together to help living things break down food for energy. Organs include mouth, esophagus, stomach, intestines, anus/rectum
9. excretory system			A combination of parts (organs) that work together to help living things get rid of liquid waste. Organs include kidney, urinary bladder, ureter, urethra
10. photosynthesis			A process by which plants make their food. Carbon dioxide and water in the presence of chlorophyll and sunlight are changed to sugar and oxygen
11. roots			A part of a plant that takes in nutrients and water from the soil
12. phloem			A tube in the stem of a plant that transport food from the leaves down to the rest of the plant

## B. Short Answer

*Directions: Answer each of the following questions in complete sentences.*

19. What parts of your body do you use to bring in and digest nutrients (food)?  
I start with food in my mouth where it is mechanically and chemically digested. Then it goes through my esophagus to the stomach where it churns and acid is released to break it down even more. Then it goes to the small intestine where most of the nutrients are absorbed into my blood stream. Then it passes to the large intestine where water is re-absorbed and the waste continues out of my anus and rectum as poop.
20. What parts of your body do you use to bring in oxygen?  
I breath in through my nose. But if it is stuffy, I might breathe in through my mouth. Then the air goes to the back of my throat and down my trachea which branches into bronchial tubes. One goes to my left lung, the other goes to my right lung. Inside my lungs, the alveoli exchange my waste (carbon dioxide) for the new oxygen.
21. How does your blood circulate through your body?  
If you start at the heart, the blood comes into the right atrium and goes to the right ventricle which sends the blood to the lungs to get oxygen. Then it returns to the left atrium to the left ventricle which contracts and pushes the blood through the aorta to the body. It goes through many arteries until it gets to capillaries in the cells where it dumps off nutrients and picks up wastes. Then it goes back to capillaries to the veins and returns to the right side of the heart through the vena cava.
22. How does your body get rid of waste?  
There are 3 types of waste: Carbon dioxide we breath out from our lungs. Solid waste comes out of our anus/rectum from the digestive system. Liquid waste is made in our kidneys, stored in the urinary bladder and then comes out our urethra.
23. How do plant get nutrients (food)?  
Plants make their own food through a process called photosynthesis. Water from the roots and carbon dioxide from the air that enters the leaves through stomata are converted, in the presence of chlorophyll and sunlight, into sugar and oxygen. The plant uses the sugar for food.
24. What plant parts are involved in transporting nutrients and water within the plant?  
Roots bring it from the soil to the stem. In the stem, it flows in the xylem to the leaves and goes through the veins to the cells in the leaves. Food that is produced in the leaves goes down the stem in the phloem.

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