Post- 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

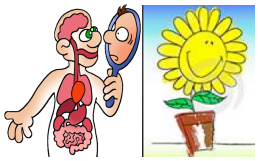
1. Duplicate prompt for each student

Procedure:

1. Explain that this assessment is to help the teacher and the students know what they learned after studying a unit on transport systems in animals and plants. Tell students that you will compare how they did on the pre assessment to what they now know. This will help you and them measure what they learned.
2. Ask students to do their best.

Name: _____

Date: _____



Post Assessment

1. The digestion process begins in which of the following?

    a. large intestine
    b. mouth
    c. small intestine
    d. stomach

2. 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

3. What are the basic structural units of organisms called?

    a. tissues
    b. cells
    c. genes
    d. nucleus

4. 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

5. Where does oxygen rich blood go after leaving the lungs?

    a. brain
    b. heart
    c. kidney
    d. stomach

6. Which organ removes cell waste from the blood?

    a. large intestine
    b. small intestine
    c. kidney
    d. heart

7. Which of the following gases do plants use in photosynthesis?

a. hydrogen
b. oxygen
c. carbon dioxide
d. carbon monoxide

8. Which best describes the role of the esophagus in digestion?
   a. it releases acid and mixes food
   b. it aids in absorption of nutrients from food
   c. it carries food from the mouth to the stomach
   d. it carries food from the stomach to the intestine

9. Which of the following is produced when sugar is used during cellular respiration?
   a. carbon dioxide
   b. water
   c. chlorophyll
   d. oxygen

10. The capillaries connect:
   a. arteries to arteries
   b. veins to veins
   c. arteries to veins
   d. veins to arteries

11. Which of the following transports nutrients and water from the roots to the leaves?
   a. stem
   b. xylem
   c. stomate
   d. phloem

12. 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

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

    a. intestine
    b. kidney
    c. stomach
    d. colon

14. The heart has 4 chambers to help pump the blood. This is an example of:

    a. structure and function
    b. the job the heart does
    c. how the heart is built
    d. why animals need a heart

15. The chemical formula for sugar is:

    a. CO_2
    b. $C_6H_{12}O_6$
    c. $C_6H_6O_6$
    d. O_2

Short Answer

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

16-18. List 3 types of body waste and describe how each waste leaves the body (3 points).

_____
_____
_____
_____
_____
_____
_____

19-24. You've studied the circulatory, digestive, excretory and respiratory system. Select one system and describe all of the structures that make up this system. Give the function for each structure (6 points).

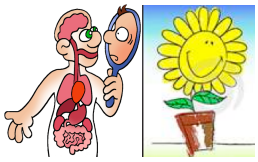
Name of system_____

Structure	Function

25-26. Describe how the respiratory and circulatory system work together (2 points).

27-28. Explain the role of the chloroplasts and stomata in photosynthesis (2 points).

29-30. In the process of photosynthesis, plants produce _____ and _____. In the process of cellular respiration, plants and animals produce water, _____ and _____.



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

16-18. List 3 types of body waste and describe how each waste leaves the body (3 points).
carbon dioxide from the lungs (gas from the lungs; from the mouth; from nose)
solid waste (poop) from the digestive tract (large intestine/anus)
liquid waste (pee/urine) from the excretory system (urethra)

19-24. You've studied the circulatory, digestive, excretory and respiratory system. Select one system and describe all of the structures that make up this system. Give the function for each structure (6 points).

(Students should list at least 4 structures. Score ½ point for structure listed for a total of 2 pts; score 1 point for each correct function for a total of 4 points)

Name of system_____

Structure	Function
Circulation	
Heart	Pump blood
Arteries	Carries blood away from heart; carries nutrients to cells
Veins	Carries blood to the heart; carries wastes from the cells
Capillaries	Connects arteries and veins; nutrients into the cell; waste away from the cell
Digestive	
Mouth	Begins digestive by chewing (mechanical) and chemical (silva)
Esophagus	Transport food from mouth to stomach
Stomach	Continues chemical (acid) and mechanical digestion
Small Intestine	Absorbs nutrients from the digested food
Large Intestine	Absorbs water
Colon	End of the intestine where waste gathers
Rectum/Anus	Point of excretion
Excretory	
Kidney	Filters blood for waste
Ureters	Connects kidneys to the bladder
Urinary bladder	Holds the urine until it can be released
Urethra	Tube from bladder to outside the body for urine to be released
Respiratory	
Nose	Gathers and filters air
Trachea	Transports air from nose/mouth down the throat area
Bronchi	Connections trachea to lungs on left and right side
Lungs	Has air sacs where gases are exchanged (CO_2 and O_2)

25-26. Describe how the respiratory and circulatory system work together (2 points).
The circulatory system transports blood that carries gases from the respiratory system. The blood picks up oxygen from the lungs and waste from the cells.

27-28. Explain the role of the chloroplasts and stomata in photosynthesis (2 points).
The chloroplasts contain chlorophyll that traps the sun's energy for the plant to make food. The stomata allow carbon dioxide to enter the leaf. Both structures are used for photosynthesis.

29-30. In the process of photosynthesis, plants produce oxygen and sugar. In the process of cellular respiration, plants and animals produce water, carbon dioxide and energy.