

ORANGE PUBLIC SCHOOLS
OFFICE OF CURRICULUM AND INSTRUCTION
OFFICE OF SCIENCE

GRADE 7
SCIENCE
Post - Assessment



School Year 2013-2014

Directions for Grade 7 Post-Assessment

The Grade 7 Post-Assessment is made up of multiple choice questions, and constructed response questions.

Read each question carefully, including diagrams and/or graphs. Work as rapidly as you can without sacrificing accuracy. Do not spend too much time puzzling over a question that seems too difficult for you. Answer the easier questions first; then return to the harder ones. Try to answer every question, even if you have to guess.

Where necessary, you may use scratch paper for your work. Do not use the margins of the test booklet to do scratch work.

YOU MUST RECORD ALL ANSWERS IN THE TEST BOOKLET PROVIDED. ALL SHORT CONSTRUCTED RESPONSES AND ESSAY RESPONSES MUST BE WRITTEN IN YOUR TEST BOOKLET.

Student Name: _____

Teacher: _____

7th Grade CPO Life Science

Date: _____

SGO Post-Assessment – Grade 7I

Multiple Choice

Identify the choice that best completes the statement or answers the question and write the letter of the correct answer in the blank provided.

- _____ 1. When pouring juice for your family, you give 1 pint to each person. What scientific measurement are you making?
- a. Area
 - b. Mass
 - c. Temperature
 - d. Volume
- _____ 2. A hypothesis:
- a. may be correct, partially correct, or incorrect.
 - b. is always wrong.
 - c. is always right.
 - d. should be a random guess.

Read the following statements to answer question 3.

Jessica discovered that a piece of bread left in a sandwich bag had developed a black mold-like substance growing on its surface. She decided to investigate the factors affecting mold growth. Answer the following question about Jessica's discovery.

- _____ 3. In Jessica's bread mold experiment, she used the same brand of bread and sandwich bags. She placed the sealed bags in places that had varying temperatures. What are her control variables?
- a. temperature.
 - b. mold.
 - c. same brand of bread and sandwich bags .
 - d. different brands of breads and sandwich bags.
- _____ 4. Which of the following is an organ system?
- a. Intestine
 - b. Heart
 - c. Circulatory
 - d. Pancreas

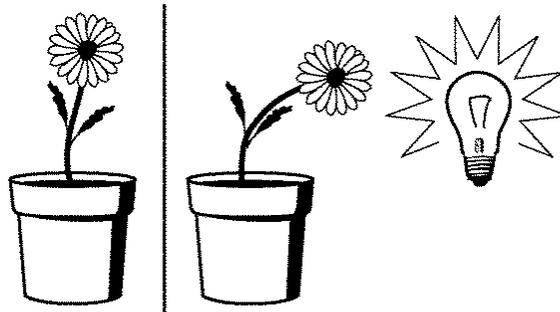
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Figure 2-1A – Reference the figure below to answer question 5



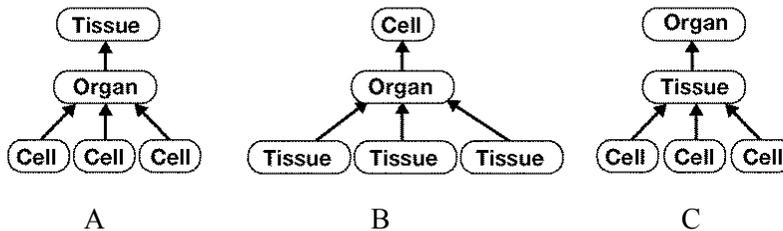
As part of an experiment, a light source is placed next to a plant. After a few days, David notices the plant growing toward the light.

_____ 5. David noted the **plant's growth** towards the light in Figure 2-1A as a:

- a. stimulus.
- b. response.
- c. growth.
- d. defense.

_____ 6. The heart, brain, and stomach are made up of groups of:

- a. organelles
- b. organ systems.
- c. tissues.
- d. blood.



_____ 7. Which diagram shows the correct **levels of organization** in a multicellular organism?

- a. A
- b. B
- c. C
- d. None of the above

_____ 8. Only organisms who are of the same _____ can reproduce with one another.

- a. species.
- b. family.
- c. cell.
- d. kingdom.

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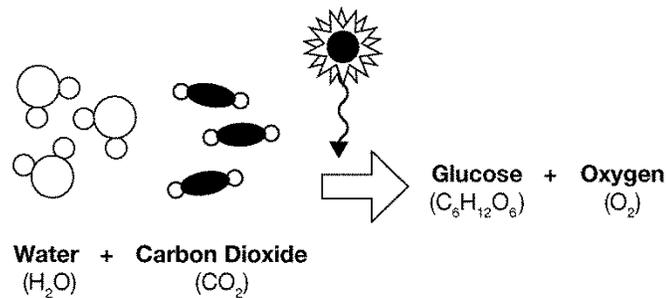
____ 9. The simplest form of matter is known as a(n) _____.

- a. cell
- b. atom
- c. molecule
- d. compound

____ 10. _____ are substances that include sugars and starches.

- a. lipids
- b. carbohydrates
- c. compound
- d. water

Reference the figure below to answer questions 11 and 12



____ 11. Figure 4-1A shows a chemical reaction. In this chemical reaction, water is:

- a. a product.
- b. a reactant.
- c. a form of energy.
- d. a lipid.

____ 12. A drop of water moves from place to place on Earth through:

- a. the precipitation cycle.
- b. the monsoon cycle.
- c. the weather cycle.
- d. the water cycle.

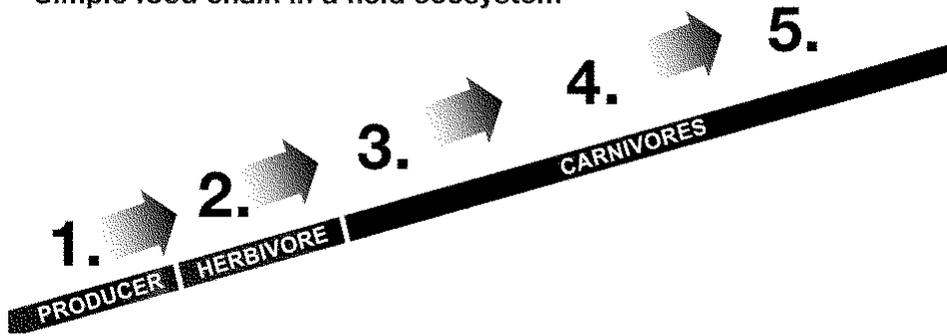
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Simple food chain in a field ecosystem



Match the following living things with their place in the food chain.

- a. grasshopper
- b. snake
- c. grass

- ____ 13. Producer
- ____ 14. Herbivore
- ____ 15. Carnivore

____ 16. Robert Hooke noticed what looked like tiny boxes when he looked at a sample of cork under a microscope. He called his discovery _____.

- a. cells.
- b. rooms.
- c. microscopic.
- d. cardboard



____ 17. Examples of a eukaryotic cells are:

- a. bacterial cells
- b. virus cells
- c. cytoplasm
- d. plant cells

____ 18. Which of the following statements is NOT part of the **cell theory**?

- a. New cells come only from existing cells.
- b. The basic unit of structure and function in an organism are cells.
- c. All cells are identical.
- d. All living things are made up of one or more cells.

____ 19. Molecules move against the gradient from lower to higher concentrations during:

- a. diffusion.
- b. osmosis.
- c. active transport.
- d. protein transport.

Student Name: _____

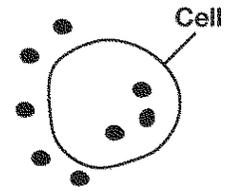
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_____ 20. In the diagram, the molecules will:

- a. move out of the cell.
- b. move around outside of the cell but never enter the cell.
- c. move into the cell.
- d. stay where they are.



● = Water molecules

_____ 21. The cell cycle describes the process where cells:

- a. are born and eventually die.
- b. increase their numbers by dividing into identical cell.
- c. increase their numbers by dividing into different cells..
- d. do not increase in number.

_____ 22. Siblings look different even though they come from the same two parents. This is because:

- a. All their traits come from their father
- b. All their traits come from their mother
- c. Mother and father's traits combine in different ways with each child
- d. Mother and father's traits combine exactly the same with each child

_____ 23. As the levels of classification move towards species, organisms share _____ characteristics.

- a. less
- b. more
- c. the same
- d. none of the above

_____ 24. DNA, made up of nucleotides, is responsible for:

- a. providing food for the cell
- b. transporting water
- c. genetic coding of traits
- d. digestion

_____ 25. A group of living things and their physical surroundings is called a(n):

- a. ecosystem.
- b. biosphere.
- c. community.
- d. population.

_____ 26. Organelles are found in the _____ of a cell.

- a. outside of
- b. cytoplasm
- c. membrane
- d. nucleus

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_____ 27. Cell walls are found in _____ cells.

- a. animal.
- b. plant.
- c. bacteria.
- d. both B and C.

_____ 28. Different forms of the same genes are expressed as:

- a. different traits
- b. same traits
- c. death
- d. identical twins

Refer to the picture to answer question 29.

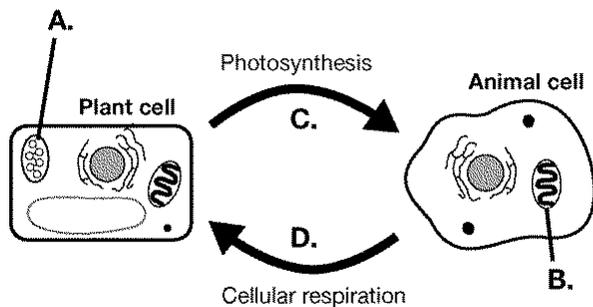


Figure 8-2A

_____ 29. What product(s) of photosynthesis is part of C in Figure 8-2A?

- a. Sugar and oxygen
- b. Carbon dioxide and water
- c. Sunlight
- d. Oxygen and carbon dioxide

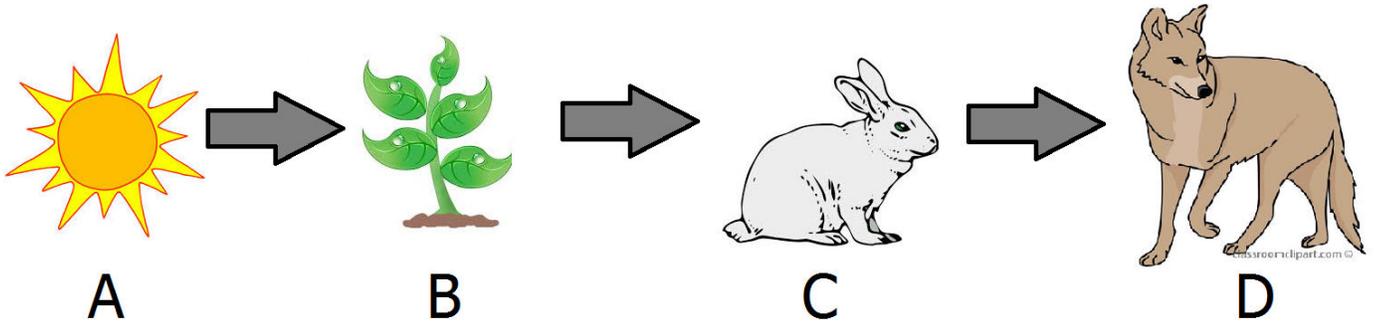
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Short Answer – Answer each question in the space provided. Write legibly and in complete sentences taking care to use proper sentence structure. Address each aspect of the question in your answer



30. **EXPLAIN** what would happen in the ecosystem if C was removed from the food chain.

Essay - Answer each question in the space provided. Write legibly and in complete sentences taking care to use proper sentence structure. Address each aspect of the question in your answer.

31. **DESIGN** an experiment to test the effect of different amounts of water on plant growth. Be sure that your experiment follows the scientific method. You may include a diagram if you wish.

32. What is the experimental variable?

33. What are your control variables?

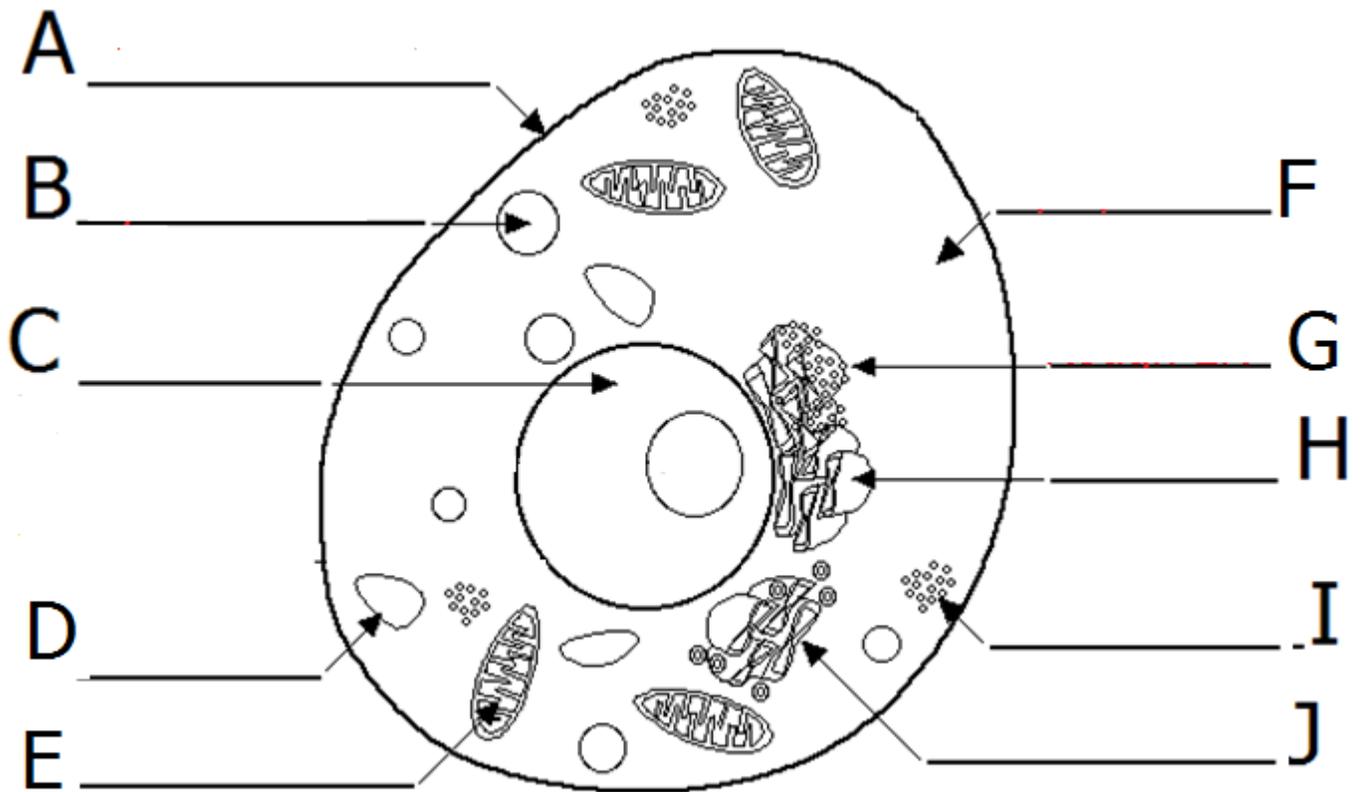
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34. Below is a diagram of an animal cell. Label the cell organelles.



35. Choose 4 organelles and describe their function in the cell.

Organelle	Function