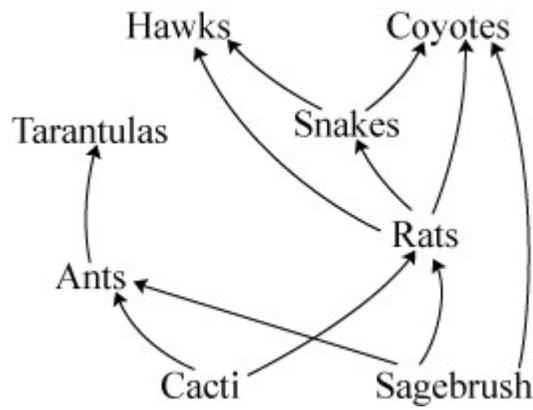


## CISD Grade 7 Science Unit 01 & 02

Some questions (c) 2012 by CSCOPE.

1



Use the desert food web above to answer the following question: How is this ecosystem MOST likely to be affected by a large increase in the number of rats?

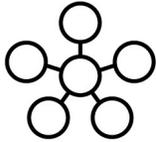
- A** The snake population will decrease.
- B** There will be an increase in the number of snakes, coyotes, and hawks.
- C** There will be a decrease in the number of coyotes and hawks.
- D** There will be an increase in the number of cacti and sagebrush plants.

2 Use the desert food web diagram from the previous question to answer the following question: Who are the producers?

- F** cacti and sagebrush
- G** hawks and coyotes
- H** ants and tarantulas
- J** rats and snakes

- 3 Josie added grass clippings, fungi, and worms to her school's environmental club compost bin. What is the BEST way to show the flow of energy among the organisms found in the compost bin?

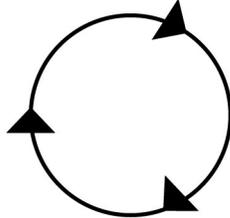
A



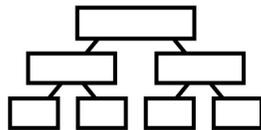
B



C



D



- 4 When energy is passing through a food web, some of the energy is lost. How much of the energy is passed from one level to the next?

F 1%  
G 10%  
H 50%  
J 90%

- 5 Which of the following organisms can undergo photosynthesis?

I. Animals	II. Plants
III. Fungi	

A I and II  
B I and III  
C II and III  
D II only

- 6** What happens to the solar energy absorbed by plants during photosynthesis?
- F** It is recycled by plants and returned to the atmosphere.
  - G** It is converted into oxygen and glucose.
  - H** It is stored as heat within the plant for cellular functions.
  - J** It is transformed into chemical energy.
- 7** The annual goal of the Preservation Middle School Environmental Club is to reduce the amount of solid waste it contributes to the landfill by collecting and composting food waste from the school cafeteria. Students then collect humus from the compost bins and add it to the planters in the school courtyard. This composting is a form of \_\_\_\_\_.
- A** respiration
  - B** pollution
  - C** recycling
  - D** fermentation

- 8** Mushrooms and bacteria serve an important role in an ecosystem, that of the decomposer. Decomposers break down the organic material of once living organisms, such as carbon and nitrogen. Why are decomposers important to the ecosystem?
- F** They release stored energy and nutrients from dead organisms into the ecosystem.
  - G** They eat the dead animals in the ecosystem, cleaning the habitat.
  - H** They provide a direct food source for producers and consumers in the ecosystem.
  - J** They are not an important component in the ecosystem.
- 9** Compost bins are containers where items such as food scraps, paper, and yard trimmings are combined with water and air, and are allowed to break down and decompose. This produces a nutrient-rich product that can be used for fertilizer. What happens to the energy from these materials as they decompose?
- A** There is no energy in dead organisms.
  - B** No energy is lost as the materials decompose.
  - C** The energy stays in the compost bin.
  - D** Some of the energy is released as heat.

Use the scenario below to answer the following two questions.

You enter the classroom, and your teacher tells you to stand on one side of the room. You see on your laboratory table a laboratory procedure, a glass beaker with a blue liquid in it, a pipette; glass, graduated cylinder; petri dish, leaves, and goggles.

**10** What is the FIRST thing you should do?

- F** put the goggles on
- G** waft the beaker
- H** wait for teacher directions
- J** read the procedure

**11** Which of the following is a safety risk for your eyes and would be a reason for having to wear goggles?

- |   |
|---|
| I. unknown blue liquid<br>II. glass beaker<br>III. glass graduated cylinder<br>IV. glass petri dish |
|---|

- A** I
- B** I, II, IV
- C** II, III, IV
- D** I, II, III, IV

**12** After observing a compost bin, a student wanted to investigate what microscopic organisms were living in it. What equipment would be needed to view the microscopic animals?

- F** graduated cylinder, meter stick, thermometer
- G** balance, hand lens, beaker
- H** microscope, microscope slides, notebook
- J** hot plate, stereoscope, tape measure

**13** Describe how a secondary consumer is dependent on the Sun for its energy.