Section: Animals and Agriculture

Read the passage below and answer the questions that follow.

There are a number of different methods of aquaculture. The most common method is known as a fish farm. Fish farms generally consist of many individual ponds that each contain fish at a specific stage of development. Clean water is circulated through the ponds and brings in oxygen while sweeping away carbon dioxide and fecal wastes. The fish grow to maturity in the ponds and are then harvested.

Another type of aquaculture operation is known as a ranch. In this method, fish such as salmon are raised until they reach a certain age and are then released. The salmon, for example, migrate downstream to the ocean, where they live until adulthood. When they are mature, the fish return to their birthplace to reproduce. When they return, they are captured and harvested.

IDENTIFYING MAIN IDEAS

One reading skill is the ability to identify the main idea of a passage. The main idea is the main focus or key idea. Frequently, a main idea is accompanied by supporting information that offers detailed facts about main ideas.

Write the letter of the term or phrase in the space provided, that best completes each statement or best answers each question.

______ 1. What is the most common method of aquaculture?
   a. fish farming       c. capturing
   b. ranching           d. migrating

______ 2. Each individual pond on a fish farm contains
   a. several different types of fish.
   b. one fish species and one of its predators.
   c. fish at a specific stage of development.
   d. mature fish that are ready to be harvested.

______ 3. Where do salmon live until they reach a certain age, before adulthood?
   a. on a fish farm       c. in a river
   b. on a ranch           d. in the ocean

______ 4. Where do salmon live after they leave their birthplace and until they reach adulthood?
   a. in the ocean         c. downstream
   b. in a pond            d. on a ranch
VOCABULARY DEVELOPMENT

Read the following question and write the answer in the space provided.

5. The prefix *aqua-* refers to “water.” The verb *culture* means “to foster the growth of living things.” Use this information to define *aquaculture*.

In the space provided, write the letter of the definition that best matches the term.

6. *migrate*  
7. *circulate*  
8. *harvest*  
9. *mature*  
   a. gather in  
   b. reach adulthood  
   c. flow without obstruction  
   d. move from one place to another

SEQUENCING INFORMATION

One reading skill is the ability to sequence information, or to logically place items or events in the order in which they occur.

Sequence the statements below to show the steps in the process of raising and harvesting salmon. Write “1” on the line in front of the first step, “2” on the line in front of the second step, and so on.

10. The salmon are released.
11. The salmon return to their birthplace.
12. The salmon are raised on a ranch until they reach a certain age.
13. The salmon are captured and harvested.
14. The salmon migrate downstream to the ocean.
15. The salmon grow to adulthood.

RECOGNIZING CAUSE AND EFFECT

One reading skill is the ability to recognize cause and effect.

Read each question and write the answer in the space provided.

16. How does circulating clean water contribute to the operation of a fish farm?

17. Why do salmon return to their birthplace after they mature?
biological control methods will therefore not affect non-targeted species.

18. Even if a few individuals are not harmed by the chemicals, these individuals will grow and reproduce into a new population that may be resistant. Then we must develop new chemicals to kill the newly resistant population.

19. Mixing organic matter (stems and roots of previous crops, crops planted to be turned back into the ground, compost, or manure) into the soil helps loosen topsoil so water can soak in and not run off. It also feeds earthworms, which open the soil, allowing water to drain into it. Plowing along the contour and planting contour strips with grass helps trap any water running downhill.

20. The most common examples are cattle, sheep, goats, pigs, chickens, horses, donkeys, and mules. Livestock are raised for meat, leather, wool, milk, and eggs; these are the primary uses provided in developed countries. People in developing countries are much less likely to use livestock for meat. Livestock in developing countries (and sometimes in developed ones) are often raised to serve as draft animals, and to provide manure for fertilizer or to be used as a source of fuel. In Africa, Masai herders drink blood from cattle.

Active Reading

SECTION: FEEDING THE WORLD

1. a
2. b
3. d
4. Crop yield refers to how much product a crop gives.
5. Mexico increased its wheat production eight-fold. India doubled its rice production.
6. After the green revolution, large amounts of chemicals were used to foster the growth of new crop varieties. Modern methods and machinery also gained popularity.
7. large amounts of water, fertilizer, and pesticides
8. The amount of water for irrigation is decreasing.
9. Pesticides and fertilizers are overused.
10. They can degrade the soil if they are used improperly.

SECTION: CROPS AND SOIL

1. A pest is an organism that exists where it is not wanted or in large enough numbers to cause economic damage.
2. insects, plants, fungi, and microorganisms
3. c
5. Crop plants grow together in large fields, providing pests with a one-stop food source.
6. WP
7. CP
8. WP
9. WP
10. CP
11. Insects in tropical climates grow and reproduce faster than they do in other climates.
12. Pest populations cause economic damage and damage to the food supply.

SECTION: ANIMALS AND AGRICULTURE

1. a
2. c
3. b
4. a
5. Aquaculture involves raising organisms (primarily fish) that live in water.
6. d
7. c
8. a
9. b
10. 2
11. 5
12. 1
13. 6
14. 3
15. 4
16. The water brings in oxygen and sweeps away carbon dioxide and fecal wastes.
17. They return to reproduce.