

Active Reading

Section: How Populations Change in Size

Read the passage below and answer the questions that follow.

Over time, the growth rates of populations change because birth rates and death rates increase or decrease. Growth rates can be positive, negative, or zero. For a population's growth rate to be zero, the average number of births must equal the average number of deaths. A population would remain the same size if each pair of adults produced exactly two offspring, and each of those offspring survived to reproduce. If the adults in a population are not replaced by new births, the growth rate will be negative and the population will shrink.

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.

In the space provided, write the letter of the term or phrase that best matches the description.

- | | |
|--|--|
| <p>_____ 1. The average number of deaths is greater than the average number of births.</p> <p>_____ 2. The average number of deaths equals the average number of births.</p> <p>_____ 3. The average number of births is greater than the average number of deaths.</p> <p>4. Growth rate is the birth rate minus the _____.</p> | <p>a. positive growth rate</p> <p>b. negative growth rate</p> <p>c. zero growth rate</p> |
|--|--|
5. Suppose that every year, one half of the population has two offspring per person, and the other half has none. If all members of the population die after a year, what is the resulting growth rate? Explain your answer.
- _____
- _____
- _____

Active Reading *continued*

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 illustrate zero population growth. Write "1" on the line in front of the first step, "2" on the line in front of the second step, and so on.

- _____ 6. The population size returns to what it was in year x .
- _____ 7. Two adults produce two offspring in year x .
- _____ 8. The offspring, as adults, reproduce one offspring each.
- _____ 9. The parents die.

RECOGNIZING SIMILARITIES AND DIFFERENCES

One reading skill is the ability to recognize similarities and differences between two phrases, ideas, or things. This is sometimes known as comparing and contrasting.

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

10. Explain the difference between negative growth rate and zero growth rate.

11. What is similar about negative growth rate and zero growth rate?

RECOGNIZING CAUSE AND EFFECT

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

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

12. What would be the result if a population did not replace its deaths with new births?

Active Reading

Section: How Species Interact with Each Other

Read the passage below and answer the questions that follow.

An organism that lives in or on another organism and feeds on the other organism is a *parasite*. The organism the parasite takes its nourishment from is known as the *host*. The relationship between the parasite and its host is called **parasitism**. Examples of parasites are ticks, fleas, tapeworms, heartworms, bloodsucking leeches, and mistletoe.

Photos of parasites may make you feel uneasy, because parasites are somewhat like predators. The differences between a parasite and a predator are that a parasite spends some of its life in or on the host, and that a parasite does not usually kill its host. In fact, the parasite has an evolutionary advantage if it allows its host to live longer. However, the host is often weakened by or exposed to disease from the parasite.

IDENTIFYING MAIN IDEAS

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

1. Give four examples of parasites.

2. What does a parasite get from its host?

3. What is the relationship between a parasite and its host called?

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

- _____ 4. A parasite
- a. takes nourishment from another organism.
 - b. always eventually kills its host.
 - c. cannot live in mistletoe.
 - d. All of the above

- _____ 5. A host
- a. is like a predator.
 - b. is the organism a parasite lives on or in.
 - c. may make you feel uneasy.
 - d. usually kills its parasite.

Active Reading *continued*

VOCABULARY DEVELOPMENT

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

6. The prefix *para-* means “alongside,” while the Greek word *sitos* means “grain” or “food.” Use this information to define *parasite*.

7. If the suffix *-ism* means “the practice of,” how would you define *parasitism*?

RECOGNIZING SIMILARITIES AND DIFFERENCES

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

8. How are parasites and predators alike?

9. How are parasites and predators different?

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.

10. Why is it beneficial for a parasite to allow its host to live?

11. What effect does a parasite’s presence usually have on its host?
