

**Populations and Communities** ▪ *Guided Reading and Study*

## Studying Populations

*This section describes how scientists study population density, size, and growth. The section also explains how factors such as food, space, and weather limit how large populations can become.*

### Use Target Reading Skills

*Before you read, preview the red headings. In the graphic organizer below, ask a question for each heading. As you read, write the answers to your questions.*

**Determining Population Size**

Question	Answer

### Determining Population Size

Match the type of study with its example.

Type of Study	Example
___ 1. direct observation	a. Counting the number of nesting sites in an area
___ 2. indirect observation	b. Counting all the crabs that live in a tide pool
___ 3. sampling	c. Counting hawks with and without bands on their legs
___ 4. mark-and-recapture study	d. Counting the number of red maples in a small area to estimate the number in the entire forest



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**Studying Populations** *(continued)*

**Changes in Population Size**

5. How can populations change in size?

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6. What is the major way in which new individuals are added to a population?

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7. The number of births in a population in a certain amount of time is the \_\_\_\_\_.

8. What is the major way that individuals leave a population?

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9. The number of deaths in a population in a certain amount of time is the \_\_\_\_\_.

10. Is the following sentence true or false? If the birth rate is greater than the death rate, population size decreases. \_\_\_\_\_

Match the term with its definition

<b>Term</b>	<b>Definition</b>
____ 11. immigration	a. Leaving a population
____ 12. emigration	b. Moving into a population

13. Is the following sentence true or false? Population density is the number of individuals in a specific area. \_\_\_\_\_  
\_\_\_\_\_

**Limiting Factors**

14. An environmental factor that causes a population to decrease is called a(n) \_\_\_\_\_.

15. What are some limiting factors for populations?

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16. The largest population that an area can support is called its \_\_\_\_\_.

17. Is the following sentence true or false? Space is often a limiting factor for plants. \_\_\_\_\_

18. What are some ways weather conditions can limit population growth?

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