

Populations and Communities



How do populations and communities interact and change?

Before You Read

Before you read the chapter, think about what you know about populations and communities. Record your thoughts in the first column. Pair with a partner, and discuss his or her thoughts. Write those thoughts in the second column. Then record what you both would like to share with the class in the third column.

Think	Pair	Share

Chapter Vocabulary

Lesson 1	Lesson 2	Lesson 3
<p>NEW biosphere population community competition limiting factor population density biotic potential carrying capacity</p>	<p>NEW birthrate death rate extinct species endangered species threatened species migration</p> <p>ACADEMIC estimate</p>	<p>NEW habitat niche producer consumer symbiosis mutualism commensalism parasitism</p> <p>REVIEW predator</p>

Lesson 1 Populations

Scan Lesson 1. Read the lesson titles and bold words. Look at the pictures. Identify three facts that you discovered about populations. Write your facts in your Science Journal.

Main Idea

The Biosphere and Ecological Systems

I found this on page _____.

What is a population?

I found this on page _____.

I found this on page _____.

I found this on page _____.


Details

Complete the sentence frame to describe Earth's biosphere.

Earth's biosphere includes _____

 **Define** population.

Population: _____

 **Draw** a diagram that shows the relationship between populations in a community. Represent populations with blue circles and the community with a red box.

Classify each example. Use the terms ecosystem, community, species, and population.

Term	Example
	Costa Rican rain forest
	all the birds that live in Juan Castro Blanco National Park, Costa Rica
	scarlet macaws
	scarlet macaws that live in Juan Castro Blanco National Park, Costa Rica

Lesson 1 | Populations (continued)

Main Idea

Competition

I found this on page _____.

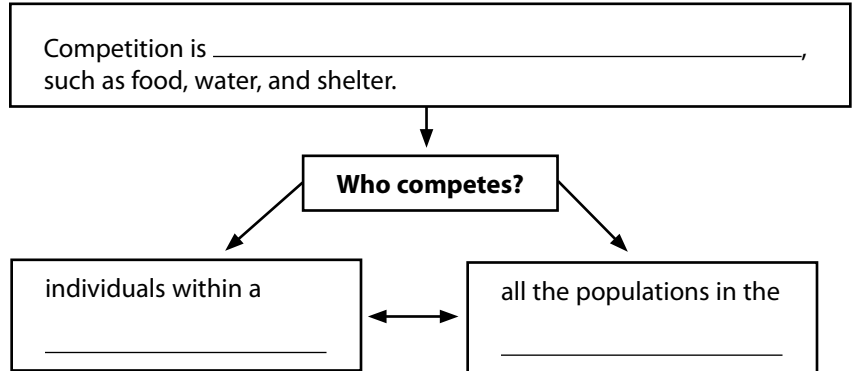
Population Sizes

I found this on page _____.

I found this on page _____.

Details

Explain competition *within a community*.



Analyze the effect of environmental changes on population size. Complete the cause-and-effect chart.

Cause	➔	Effect
Changes in environmental factors: a. _____ b. _____ c. _____ d. _____		

Define limiting factors, and identify seven factors.

Limiting factor: _____

Limiting factors:

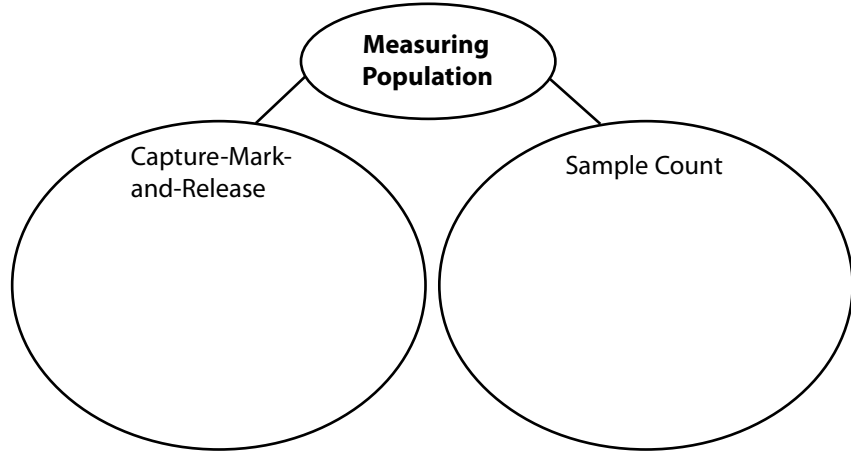
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

Lesson 1 | Populations (continued)

Main Idea Details

I found this on page _____.

Describe two ways scientists measure population.



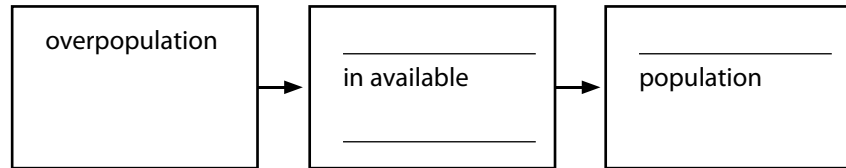
I found this on page _____.

Contrast biotic potential *and* carrying capacity.

Term	Description
Biotic potential	
Carrying capacity	

I found this on page _____.

Analyze how overpopulation can impact a community.



Analyze It A drought decreases growth of prairie grass. What might happen to the deer population because of the limiting factor of food?
