

# Ecological Roles

Abiotic and Biotic Factors

Chapter 12, Lesson 1

## Main Idea:

**Living things and nonliving factors, such as air, water, sunlight, and soil interact in Earth's ecosystems.**

## What You'll Learn:

- **Explain how abiotic factors including light, temperature, air, water, and soil influence living things.**
- **Describe how systems depend on biotic and abiotic factors.**

## So What?

**Changes in living and nonliving factors can affect ecosystems.**



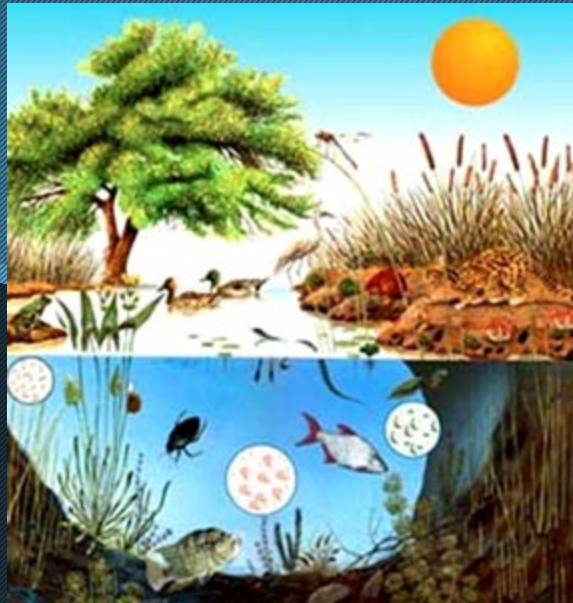
# VOCABULARY

Use your book to locate the definitions for the Review Vocabulary, New Vocabulary, and Academic Vocabulary words on page 134 of your Science Notebook.

# What is an Ecosystem?

Define ecosystem, and describe some interactions that take place in an ecosystem.

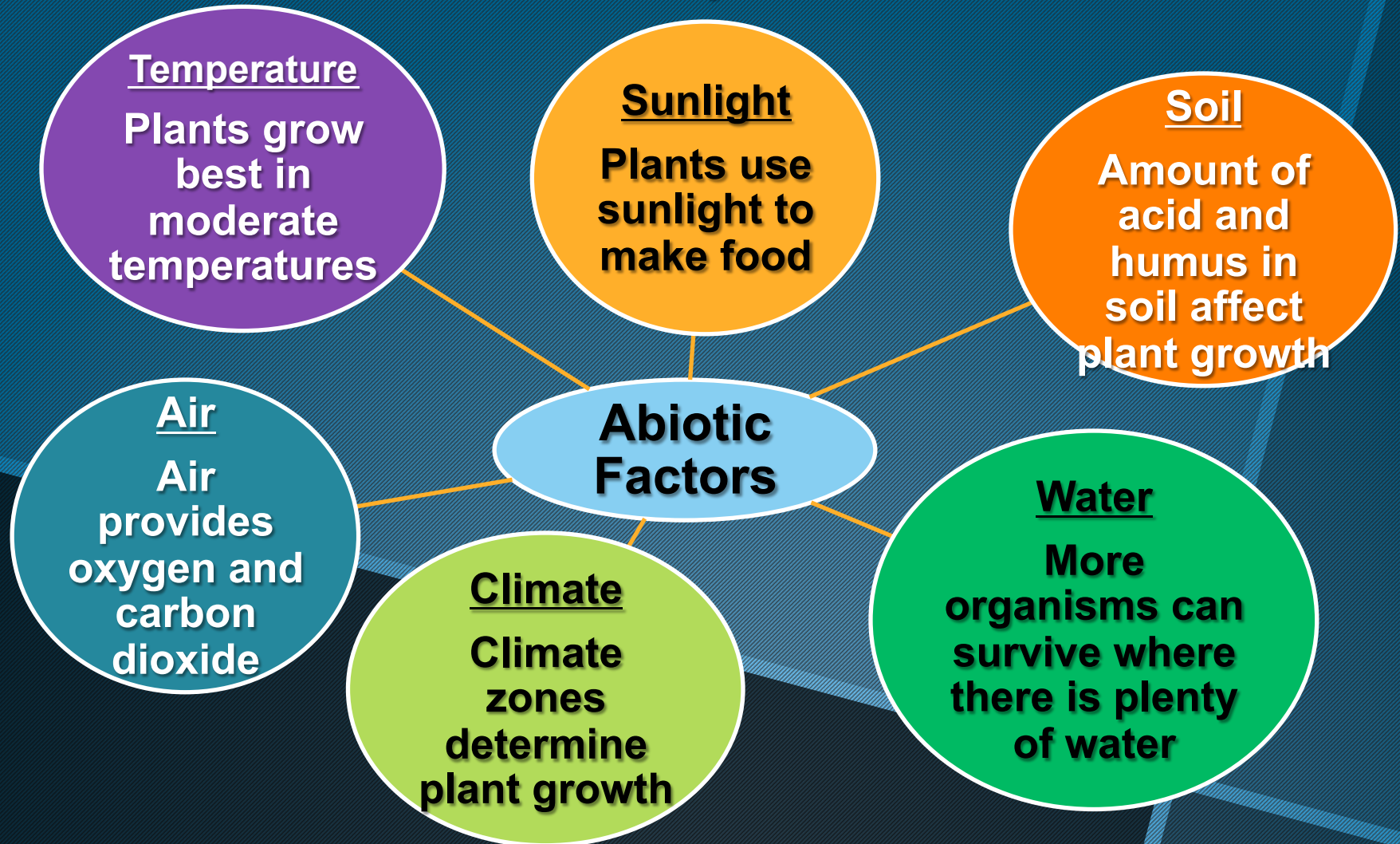
**An ecosystem consists of the organisms in an area and the place they live. In an ecosystem, organisms interact with one another and with nonliving factors (ie: Sun) in the environment.**





# Abiotic Factors

Organize information about the abiotic factors that are found in an ecosystem.



# **SUMMARIZE IT**

**Summarize three main ideas  
of the above sections.**



# Biotic & Limiting Factors

Organize information about limiting factors. Describe how each limiting factor affects populations in an ecosystem.





# Biotic & Limiting Factors

Rephrase in your own words how changes in one population can affect other populations. Use sea otters as an example.

**If the sea otter population declines, the population of sea urchins that otters eat will increase. The urchins will eat more kelp, and the kelp beds will float away. Other organisms that need the kelp beds will decrease.**





# **SUMMARIZE IT**

**Choose one main idea from  
each section above.**

**Summarize the main idea in  
your own words.**