

# Active Reading

## 13.1 Section: Climate and Climate Change

Read the passage below and answer the questions that follow.

You know that the temperature and precipitation change with the seasons. But do you know what causes the seasons? The seasons result from the tilt of Earth's axis (about  $23.5^\circ$  relative to the plane of its orbit). Because of this tilt, the angle at which the sun's rays strike the Earth changes as the Earth moves around the sun.

During summer in the Northern Hemisphere, the Northern Hemisphere tilts toward the sun and receives direct sunlight. The number of hours of daylight is greatest in the summer. Therefore, the amount of time available for the sun to heat the Earth becomes greater. During summer in the Northern Hemisphere, the Southern Hemisphere tilts away from the sun and receives less direct sunlight. During summer in the Southern Hemisphere, the situation is reversed. The Southern Hemisphere is tilted toward the sun, whereas the Northern Hemisphere is tilted away.

### 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.

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

1. How much does Earth tilt on its axis?

\_\_\_\_\_

2. The number of hours of daylight is greatest when?

\_\_\_\_\_

3. Where is the Northern Hemisphere in relation to the sun in summer?

\_\_\_\_\_

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

- \_\_\_\_\_ 4. Which of the following sentences best states the main idea of the passage?
- a. The amount of time for the sun to heat Earth becomes greater.
  - b. The seasons result from the tilt of Earth on its axis.
  - c. The Southern Hemisphere is tilted away from the sun.
  - d. Temperature and precipitation change with the seasons.

**Active Reading *continued*****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.**

5. What season is it in the Northern Hemisphere when the Southern Hemisphere is tilted toward the sun?

\_\_\_\_\_

6. What season is it in the Southern Hemisphere when the Northern Hemisphere is tilted away from the sun?

\_\_\_\_\_

**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.**

7. What causes the seasons?

\_\_\_\_\_

\_\_\_\_\_

8. How does the tilt of Earth affect sunlight?

\_\_\_\_\_

\_\_\_\_\_

9. How does the amount of time in which the sun can warm Earth affect the seasons?

\_\_\_\_\_

\_\_\_\_\_

10. Where is the Southern Hemisphere in relation to the sun when it is summer in the Northern Hemisphere?

\_\_\_\_\_

\_\_\_\_\_

11. Where is the Northern Hemisphere in relation to the sun when it is summer in the Southern Hemisphere?

\_\_\_\_\_

\_\_\_\_\_