

# World Geography and Cultures

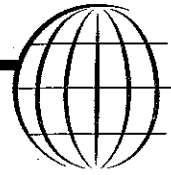
## **Chapter 3 Resources**

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# VOCABULARY

## ACTIVITY

3



### Climates of the Earth

**DIRECTIONS:** Choose the word or phrase that best completes the sentence. Then write the letter of the word or phrase in the blank provided.

- \_\_\_\_\_ is the condition of the atmosphere in one place during a limited period of time.
  - Climate
  - Weather
  - Temperature
- It takes about one year for the Earth to complete one \_\_\_\_\_.
  - axis
  - degree
  - revolution
- The day when daylight and nighttime hours are of equal length is called \_\_\_\_\_.
  - a solstice
  - an equinox
  - a hemisphere
- Without \_\_\_\_\_, the Earth would be too cold for most living things.
  - global warming
  - the greenhouse effect
  - the escaping atmosphere
- Global winds blow in generally constant patterns called \_\_\_\_\_.
  - prevailing winds
  - doldrums
  - smog
- \_\_\_\_\_ is considered a famous recurring climatic event.
  - Rain shadow
  - Coriolis effect
  - El Niño
- The side of a mountain range facing away from the wind is called its \_\_\_\_\_ side.
  - leeward
  - windward
  - wayward
- \_\_\_\_\_ grows where human activity has not changed the environment.
  - Mixed forest
  - Prairie
  - Natural vegetation
- Underground springs can support a(n) \_\_\_\_\_, an area of lush vegetation.
  - oasis
  - chaparral
  - steppe
- Trees whose leaves change color and fall in autumn are called \_\_\_\_\_.
  - coniferous
  - deciduous
  - evergreen

## RETEACHING ACTIVITY 3

*Climates of the Earth*

### Terms and Concepts

**DIRECTIONS:** Match each term from Chapter 3 with the correct definition.

- |                          |   |
|--------------------------|---|
| _____ 1. climate         | a. atmospheric conditions at one time and place |
| _____ 2. weather         | b. grassland                                    |
| _____ 3. prevailing wind | c. coniferous and deciduous trees               |
| _____ 4. mixed forest    | d. weather patterns in an area over time        |
| _____ 5. prairie         | e. moving stream of water                       |
| _____ 6. current         | f. constant global wind pattern                 |

### Organizing Information

**DIRECTIONS:** The lettered items in the Fact Bank identify different climate regions. Complete the diagram below by writing the letter of each climate region in the correct box in the diagram.

#### Fact Bank

- |                        |                         |                      |
|------------------------|-------------------------|----------------------|
| A. desert              | E. tropical savanna     | I. marine west coast |
| B. very high mountains | F. Mediterranean        | J. subarctic         |
| C. humid continental   | G. tropical rain forest | K. humid subtropical |
| D. tundra              | H. steppe               |                      |

7. Tropical	8. Dry	9. Midlatitude	10. High Latitude	11. Highlands

(continued)

## RETEACHING ACTIVITY 3

### Connecting Ideas

**DIRECTIONS:** Answer the following questions in the spaces provided.

12. What connection might exist between global warming and human activities?

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13. In what ways do ocean currents affect climate? Give one example of a current and the area it affects.

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### Visualizing Information

**DIRECTIONS:** Fill in the chart with the ways that each factor influences climate.

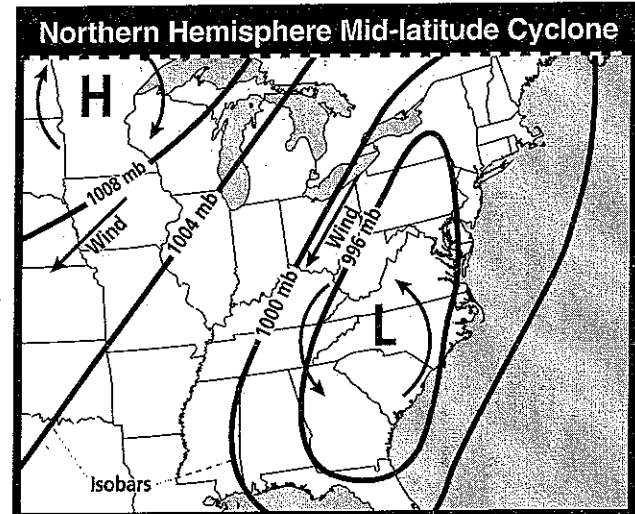
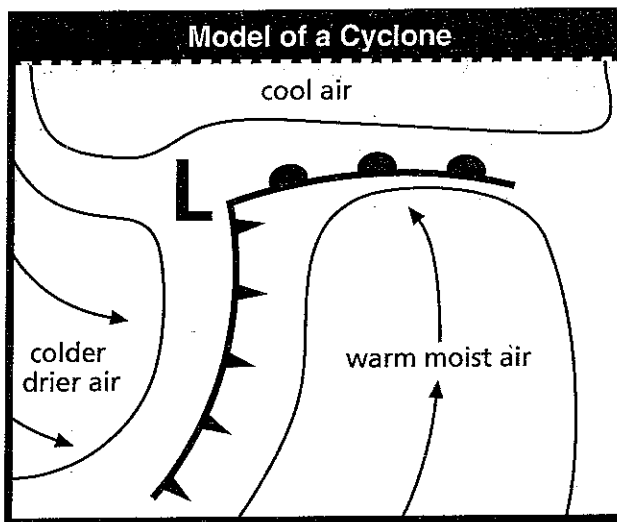
Factors Affecting Climate	
<b>Latitude</b>	14. 15. 16.
<b>Elevation</b>	17.
<b>Wind and Ocean</b>	18. 19. 20.
<b>Landforms</b>	21. 22.

## CHAPTER 3 REINFORCING SKILLS ACTIVITY

### Reading a Diagram

A diagram is a graphic representation of a process or event. Diagrams illustrate placement, movement, change, cycles, or relationships through drawings and symbols. It is important to read and understand titles, labels, and symbols on a diagram. These will help you understand what the diagram is illustrating.

The following diagrams show the formation and movement of midlatitude cyclones, or areas of low pressure that occur between 30°N and 60°N or 30°S and 60°S. In the United States, midlatitude cyclones cause most storms, usually with heavy rain or snow, especially during the winter.



**Key:** **mb** – millibar: a unit of measure for atmospheric pressure, or the weight of air pressing on the Earth's surface  
 —→ direction of wind

**H** – high-pressure area  
**L** – low-pressure area  
 — isobar: line connecting points of equal atmospheric pressure

### Practicing the Skill

**DIRECTIONS:** Use the diagrams to answer the following questions on a separate sheet of paper.

1. Do the winds of a cyclone spin clockwise or counterclockwise?
2. What kind of air meets warm, moist air to start a cyclone spinning?
3. What might the curved line with spikes represent?
4. Around what kind of area do cyclone winds begin to spin?
5. What does the higher millibar measurement in a high-pressure area mean?
6. Does atmospheric pressure increase or decrease toward the center of a low-pressure area?
7. According to the diagram on the right, what part of the United States is likely to experience storms?

## Enrichment Activity 3



### Global Weather Extremes

**DIRECTIONS:** The National Climatic Data Center (NCDC) tracks weather extremes around the world. The chart below shows record high and low temperatures by continent; country, and locality. Study the chart, and answer the following questions.

Continent	Highest Temperature Recorded	Location	Lowest Temperature Recorded	Location
North America	134°F (57°C) July 10, 1913	Death Valley, CA United States	-81.4°F (-63°C) February 3, 1947	Snag, Yukon, Canada
South America	120°F (49°C) December 11, 1905	Rivadavia, Argentina	-27°F (-33°C) June 1, 1907	Sarmiento, Argentina
Europe	122°F (50°C) August 4, 1881	Seville, Spain	-67°F (-55°C) <i>exact date unknown</i>	Ust'Shchugor, Russia
Africa	136°F (58°C) September 13, 1922	El Azizia, Libya	-11°F (-24°C) February 11, 1935	Ifrane, Morocco
Asia	129°F (54°C) June 21, 1942	Tirat Tsvi, Israel	-90°F (-68°C) February 7, 1892	Verkhoyansk, Russia*
Australia	128°F (53°C) January 16, 1889	Cloncurry, Queensland	-9.4°F (-13°C) June 29, 1994	Charlotte Pass, New South Wales
Antarctica	59°F (15°C) January 5, 1974	Vanda Station	-129°F (-89°C) July 21, 1983	Vostok

\* -90°F (-68°C) also recorded at Oimekon, Russia, on February 6, 1933

- At what place and on which continent was the coldest temperature recorded?  
\_\_\_\_\_
- Where and when did the temperature reach -9.4°F (-13°C), a record low for Australia?  
\_\_\_\_\_
- What is the difference between the highest and lowest recorded temperatures on Earth?  
\_\_\_\_\_
- Which continent has experienced the widest range of record high and record low temperatures?  
\_\_\_\_\_  
What is that difference in degrees Fahrenheit?  
\_\_\_\_\_
- In which country were record low temperatures for two different continents recorded?  
\_\_\_\_\_
- Why might Argentina be considered a land of extremes?  
\_\_\_\_\_  
\_\_\_\_\_
- What are two precautions residents of Oimekon, Russia, would need to take when venturing outdoors in winter?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# World Geography and Cultures

## **Chapter 3 Section Resources**

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**Guided Reading Activity 3-1**

For use with textbook pages 50–53

## *Earth-Sun Relationships*

**Underline the Correct Word**

**DIRECTIONS:** Use the information in your textbook to choose the word or phrase that best completes the sentence. Underline the correct word.

1. Weather refers to the \_\_\_\_\_ atmospheric conditions in one place  
(long-term/short-term/global)
2. Climate refers to the \_\_\_\_\_ weather patterns of an area  
(long-term/short-term/oceanic)
3. The Earth's \_\_\_\_\_ is an imaginary line running from the North Pole to the South Pole (Equator/axis/tilt)
4. One reason for the variations in sunlight in different places is the Earth's \_\_\_\_\_  
(revolution/tilt/climate)
5. Earth \_\_\_\_\_ on its axis once every 24 hours (rotates/revolves/wobbles)
6. It takes one year for the Earth to make a complete \_\_\_\_\_ around the sun.  
(rotation/revolution/axis)
7. On the \_\_\_\_\_ the length of the day and the night are equal  
(equinox/Equator/spring)
8. The northernmost point that can receive direct sunlight is called the \_\_\_\_\_  
(tropics/Northern Hemisphere/Tropic of Cancer)
9. On the summer \_\_\_\_\_, the Northern Hemisphere has its longest day of sunlight  
(Equator/solstice/equinox)
10. A polar region tilted away from the sun has six months of winter \_\_\_\_\_  
(darkness/snow/blizzards)
11. Earth's atmosphere \_\_\_\_\_ some of the sun's radiation back into space.  
(reflects/absorbs/transforms)
12. The amount of \_\_\_\_\_ put into the atmosphere by human activity has increased rapidly. (nitrogen/carbon dioxide/carbon monoxide)

**Guided Reading Activity 3-2**

For use with textbook pages 54-59.

## *Factors Affecting Climate*

**Fill In the Blanks**

**DIRECTIONS:** Use the information in your textbook to fill in the blanks for the following sentences.

1. Climate follows general patterns between each \_\_\_\_\_ zone.
2. The zone between the Tropic of Cancer and the Tropic of Capricorn is called the \_\_\_\_\_.
3. Midlatitudes get the most \_\_\_\_\_ weather on the planet.
4. At any latitude, the higher the \_\_\_\_\_, the colder the temperature.
5. Winds occur because the sun heats the Earth \_\_\_\_\_.
6. The \_\_\_\_\_ effect causes prevailing winds to blow diagonally rather than along strict north-south or east-west lines.
7. The prevailing winds of the midlatitudes are called the \_\_\_\_\_.
8. Relatively windless areas along the Equator are called the \_\_\_\_\_, or the horse latitudes.
9. Streams of warm or cold water moving through the oceans are called \_\_\_\_\_.
10. The water cycle affects weather when \_\_\_\_\_ falls as rain or snow.
11. El Niño occurs when patterns of \_\_\_\_\_ currents and water temperatures reverse.
12. El Niño conditions have a profound effect on \_\_\_\_\_ around the world.
13. Places with the same latitude may have different climates because they have different \_\_\_\_\_.
14. Large bodies of \_\_\_\_\_ tend to moderate the climate of surrounding areas.
15. \_\_\_\_\_ block the flow of moisture-laden air.
16. The \_\_\_\_\_ effect causes dry areas or deserts to develop.

**Guided Reading** Activity 3-3

For use with textbook pages 60–64

## World Climate Patterns

**Short Answer**

**DIRECTIONS:** Use the information in your textbook to write a short answer to each of the following questions.

1. What are the regions into which climates can be organized?  
\_\_\_\_\_
2. What is a region's natural vegetation?  
\_\_\_\_\_
3. What is a climate region?  
\_\_\_\_\_
4. What is the characteristic climate and vegetation of a tropical dry climate?  
\_\_\_\_\_
5. What is the difference between a desert climate and a steppe climate?  
\_\_\_\_\_
6. List the characteristics of midlatitude climates.  
\_\_\_\_\_
7. How would you recognize a Mediterranean climate?  
\_\_\_\_\_
8. Which climate region lies just south of the Arctic Circle, and what are its characteristics?  
\_\_\_\_\_
9. What is one hypothesis for the ice ages?  
\_\_\_\_\_
10. How is smog formed?  
\_\_\_\_\_