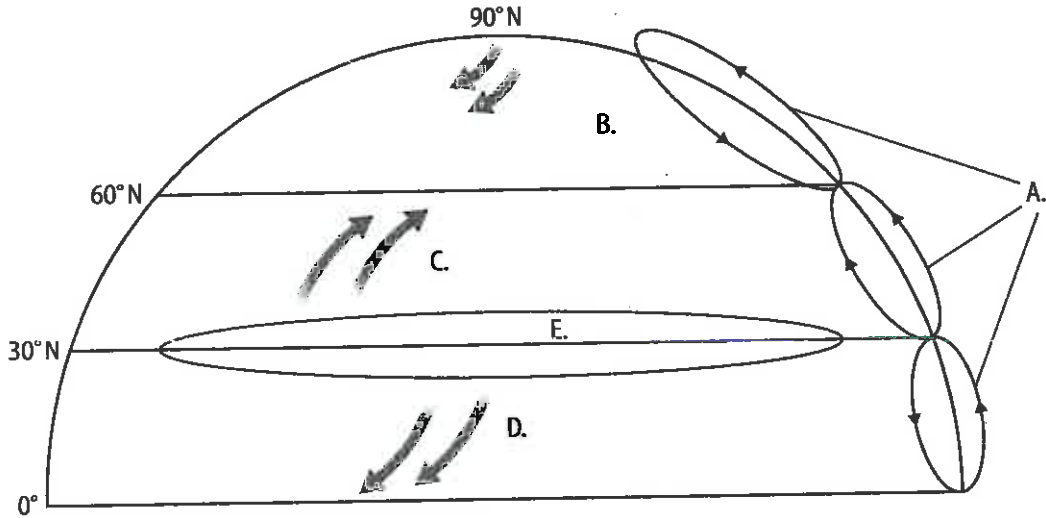


Content Practice A Chapter 12.3 Review

LESSON 3

Air Currents

Directions: The diagram below shows Earth's northern hemisphere. Use the diagram to answer each question or respond to each statement.



1. What is depicted at A?

2. Which winds are depicted by the arrows marked B? _____
3. Which winds are represented by the arrows marked C? _____
4. Which winds are depicted by the arrows marked D? _____
5. What does the area labeled E represent? _____

Directions: Draw a line to connect related terms in each column.

- | | |
|---------------------------------------|------------------|
| 6. low latitudes | warm air |
| 7. high-speed air current | Earth's rotation |
| 8. cause of Coriolis effect | polar regions |
| 9. high-pressure air | cold air |
| 10. high latitudes | tropics |
| 11. cool night air flowing out to sea | jet stream |
| 12. low-pressure air | land breeze |

Key Concept Builder 

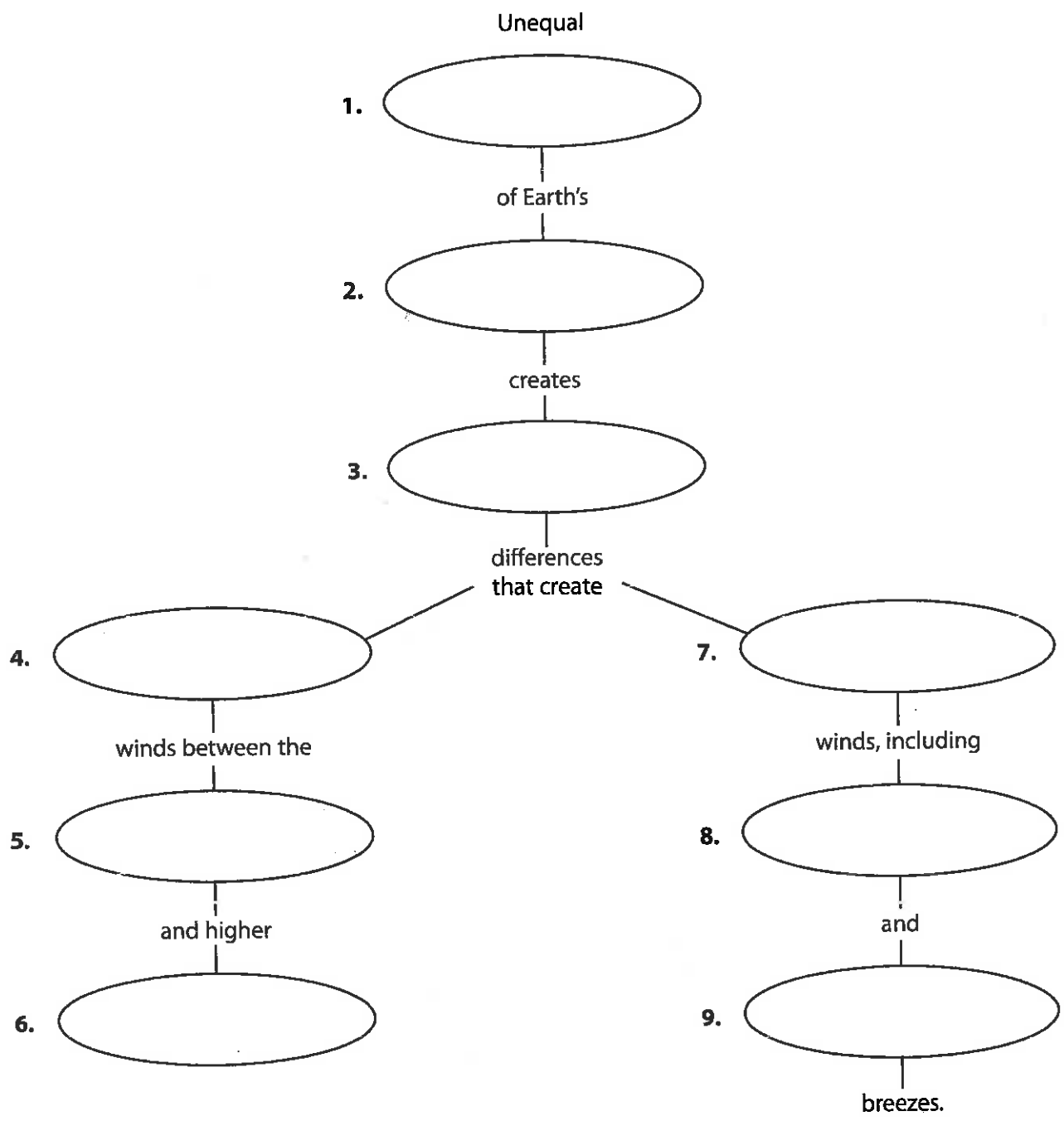
LESSON 3

Air Currents

Key Concept How does uneven heating of Earth's surface result in air movement?

Directions: Complete this concept map by choosing terms from the word bank and writing them in the correct spaces. Each term is used only once.

heating global land latitudes local pressure sea surface tropics



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Key Concept Builder **LESSON 3****Air Currents**

Key Concept How does uneven heating of Earth's surface result in air movement?

Directions: On each line, write the term that correctly completes each sentence. Each term is used only once.

cold **poles** **tropics** **warm**

1. The lowest latitudes are in the _____.
2. The highest latitudes are near the _____.
3. The temperature of air affects its movement— _____ air rises, and _____ air sinks.

Directions: Circle the term in parentheses that correctly completes each sentence.

4. The amount of solar energy that a part of Earth's surface receives depends largely on the (angle/brightness) of the sunlight in that area.
5. Low air pressure is usually located over the (poles/tropics).
6. Air pressure variations in different areas are the source of (clouds/winds).
7. A land breeze usually occurs during the (day/night).
8. A sea breeze is a (cool/warm) wind that blows from the sea onto the land.
9. Global wind belts influence (climate/tides) and weather.

Lesson Quiz A**LESSON 3****Air Currents****Multiple Choice**

Directions: On the line before each question or statement, write the letter of the correct answer.

- _____ 1. What is the cause of wind?
A. the greenhouse effect
B. unequal heating of Earth's surface
C. the release of latent heat as water changes state
- _____ 2. Sea breezes form during the day when
A. a high-pressure area forms over the land.
B. the land heats faster than the nearby ocean.
C. the ocean heats faster than the nearby land.
- _____ 3. What does the Coriolis effect do to winds in the northern hemisphere?
A. causes them to blow faster
B. causes them to reverse direction
C. causes them to turn to the right
- _____ 4. Why do land breezes blow from the land to the sea at night?
A. The land is colder.
B. Land cools faster than nearby water.
C. An area of low pressure forms over the land.

Matching

Directions: On the line before each definition, write the letter of the term that matches it correctly. Each term is used only once.

- _____ 5. steady east-to-west winds that flow toward the equator from 30°N and 30°S
- _____ 6. winds that blow from west to east between 30°N and 60°N and 30°S and 60°S
- _____ 7. cold winds that blow from east to west near the poles
- _____ 8. narrow bands of high winds near the top of the troposphere
- A. prevailing westerlies
B. jet streams
C. trade winds
D. polar easterlies