Name _____ Date _____ Class _____

Key Concept Builder

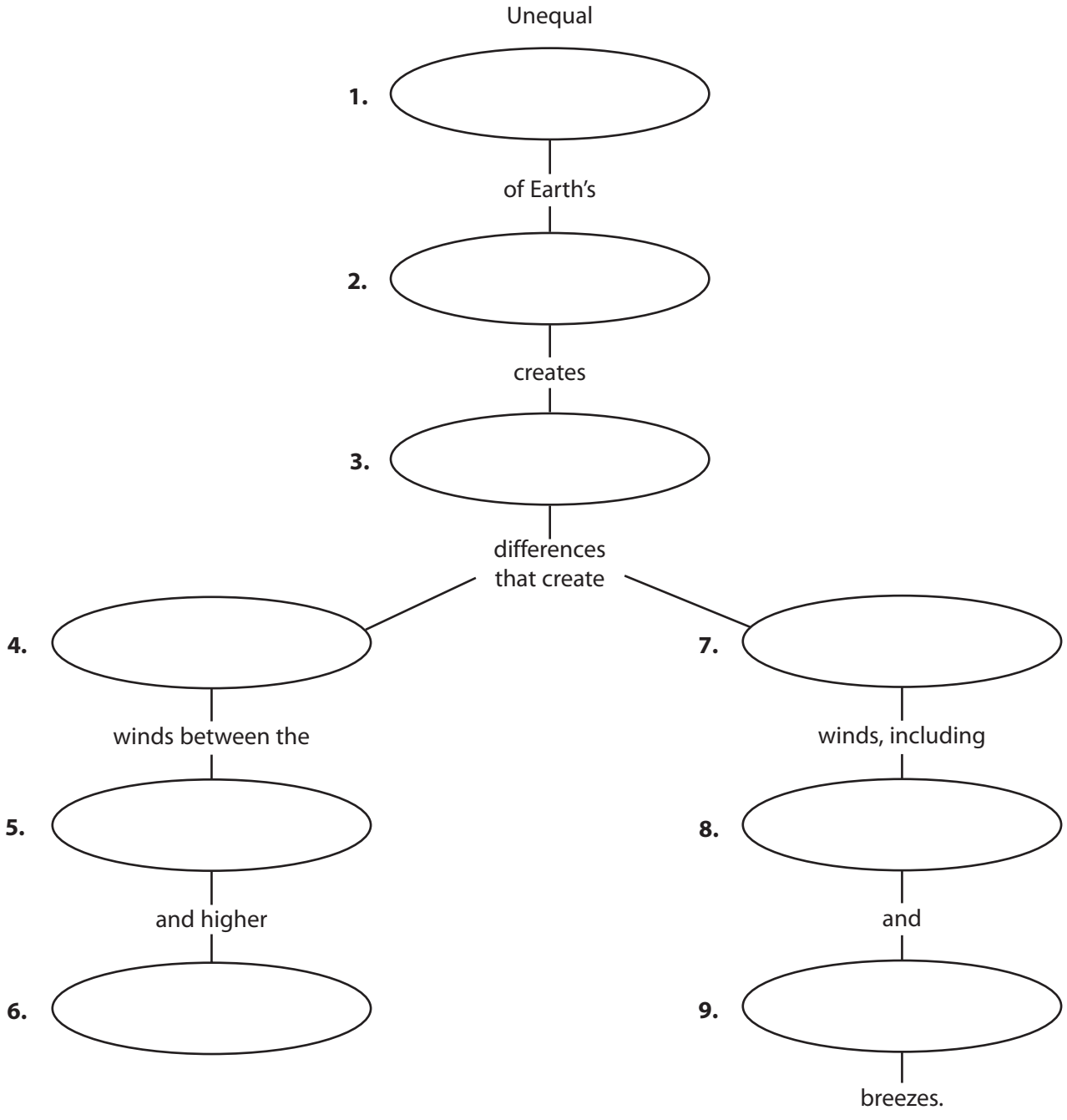
LESSON 3

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**



Name _____ Date _____ Class _____

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.

Name _____ Date _____ Class _____

Key Concept Builder

LESSON 3

Air Currents

Key Concept How are air currents on Earth affected by Earth's spin?

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

_____ **1.** various distinct wind patterns near Earth's surface

_____ **2.** a phenomenon that causes air masses to apparently turn left or right

_____ **3.** steady winds that flow toward the equator

_____ **4.** areas of high pressure and calm air

_____ **5.** steady winds that flow toward the east

_____ **6.** cold winds near the poles that blow toward the east

_____ **7.** narrow bands of fast, high-altitude winds

_____ **8.** a global wind belt

A. westerlies

B. trade winds

C. prevailing winds

D. easterlies

E. jet streams

F. convection cell

G. Corliolis effect

H. doldrums

Name _____ Date _____ Class _____

Key Concept Builder **LESSON 3**

Air Currents

Key Concept What are the main wind belts on Earth?

Directions: *Answer each question on the lines provided.*

1. What is the name of the model that scientists use to describe air circulation in Earth's atmosphere?

_____

2. In which layer of the atmosphere do these air movements occur?

_____

3. Where does the warmest air rise in this model, and where does it move back to the surface?

_____

_____

_____

_____

4. Where does other air rise and sink in this model?

_____

_____

_____

_____

5. What causes winds flowing north or south to seem to turn toward the west or east, depending on the hemisphere? What is the name of this phenomenon?

_____

_____

_____