

Weather Chapter 2 Test**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- _____ 1. The greenhouse effect is
 - a. the absorption of energy by clouds.
 - b. the reflection of solar energy into the atmosphere.
 - c. the process by which gases hold heat in the atmosphere.
- _____ 2. The total energy of motion in the particles of a substance is called
 - a. radiation.
 - b. thermal energy.
 - c. temperature.
- _____ 3. The freezing point of pure water on the Celsius scale is
 - a. 0°C.
 - b. 32°C.
 - c. 100°C.
- _____ 4. Heat transfer between two substances that are in contact is called
 - a. conduction.
 - b. convection.
 - c. radiation.
- _____ 5. Heat from the sun reaches you by
 - a. conduction.
 - b. convection.
 - c. radiation.
- _____ 6. Most of the heating of the troposphere comes from
 - a. conduction.
 - b. convection.
 - c. radiation.
- _____ 7. Winds are caused by differences in
 - a. precipitation.
 - b. humidity.
 - c. air pressure.
- _____ 8. Cool air tends to
 - a. be less dense and flow over warm air.
 - b. be lifted up by more dense warm air.
 - c. be more dense and flow under warm air.
- _____ 9. Local winds differ from global winds because they
 - a. are caused by unequal heating within a small area.
 - b. are caused by differences in cloud cover.
 - c. are due to unequal rainfall.
- _____ 10. Earth's rotation makes global winds curve. This is called the
 - a. convection effect.
 - b. Coriolis effect.
 - c. rotational effect.

- _____ 11. The doldrums are characterized by
- cool temperatures.
 - weak winds.
 - falling air.
- _____ 12. Relative humidity can be measured with a(an)
- psychrometer.
 - barometer.
 - thermometer.
- _____ 13. Two conditions are required for cloud formation: cooling of the air and
- the absorption of infrared energy.
 - the presence of particles in the air.
 - the influence of the Coriolis effect.
- _____ 14. Large clouds that often produce thunderstorms are called
- stratus clouds.
 - cumulonimbus clouds.
 - cirrus clouds.
- _____ 15. Very high feathery clouds are called
- stratus clouds.
 - cumulonimbus clouds.
 - cirrus clouds.
- _____ 16. Layered clouds that often cover much of the sky and are a dull gray color are called
- stratus clouds.
 - cumulonimbus clouds.
 - cirrus clouds.
- _____ 17. Any form of water that falls from clouds is called
- evaporation.
 - condensation.
 - precipitation.

Modified True/False

Indicate whether the statement is true or false. If false, change the identified word or phrase to make the statement true.

Word Bank: 2 True

- _____ 1. On the Celsius scale, the freezing point of pure water is 0°. _____
- _____ 2. When you touch a hot spoon, heat is transferred by conduction from the spoon to your hand.

- _____ 3. Earth's major wind belts are the trade winds, the prevailing westerlies, and the polar latitudes.

- _____ 4. The three main types of clouds are cumulus, stratus, and altos. _____
- _____ 5. The amount of water vapor in the atmosphere that condenses and falls to Earth can be measured with a psychrometer. _____

Name: _____ ID: Version

Completion

Word Bank: air pressure, conduction, convection, convection, global wind, greenhouse, infrared, prevailing westerlies, radiation, scattered, ultraviolet, wind-chill

1. _____ radiation can cause sun burns and skin cancer.
2. Solar energy called _____ radiation is felt as heat.
3. Heat is transferred from the sun to Earth by _____.
4. The transfer of heat by the movement of a fluid is called _____.
5. In the atmosphere, some of the sun's rays get _____, or reflected in all directions.
6. The increased cooling that a wind can cause is called the _____.
7. Winds that blow steadily from specific directions over long distances are _____.
8. Winds in the mid-latitudes that blow from west to east are _____.

Short Answer

Use the diagram to answer each question.

Local Winds

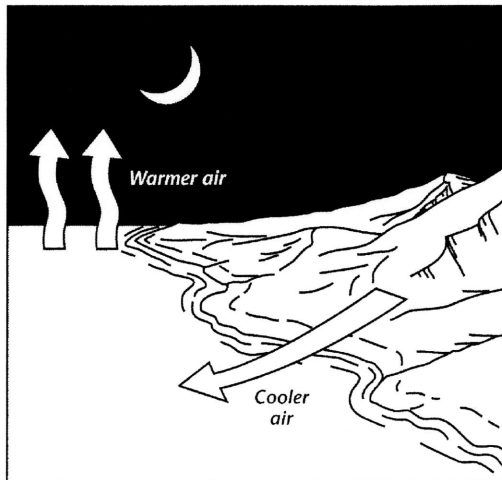


Diagram X

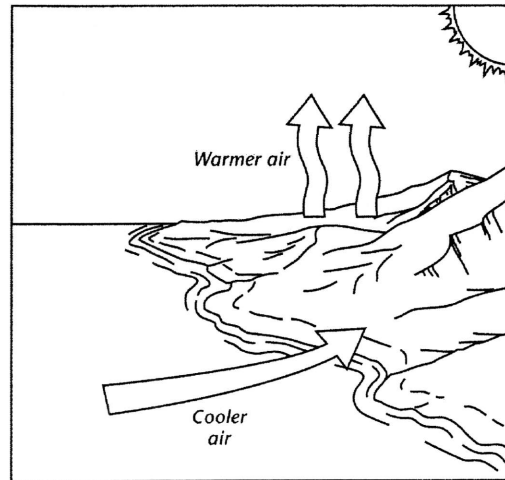
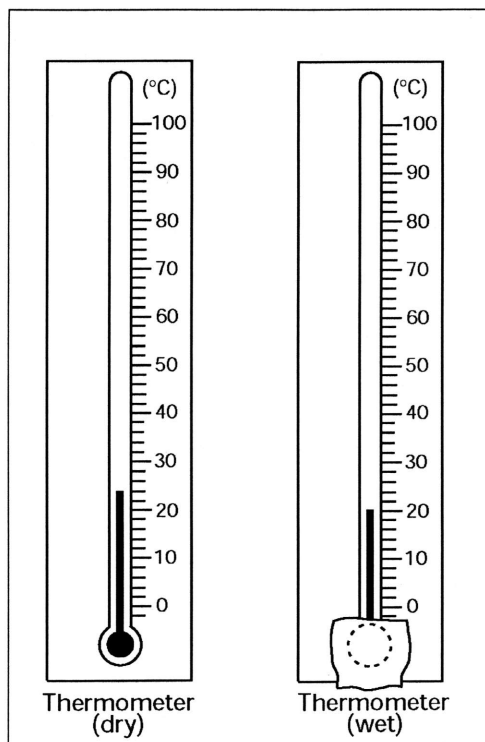


Diagram Y

1. (Use Chapter 2 R&R Packet "Twister Packet")
 - A. Finish drawing the convection cells above for **Diagram Y**. (+2)
 - B. Record the location of High and Low Pressure on **Diagram Y**. (+2)
 - C. With complete sentences, explain how the Sea Breeze in **Diagram Y** occurs. (+2)
(+1 grammar / punctuation)

Use the diagram to answer each question.

Relative Humidity



Dry-Bulb Reading (°C)	Difference Between Wet- and Dry-Bulb Readings (°C)				
	1	2	3	4	5
10	88	76	65	54	43
12	88	78	67	57	48
14	89	79	69	60	50
16	90	80	71	62	54
18	91	81	72	64	56
20	91	82	74	66	58
22	92	83	75	68	60
24	92	84	76	69	62
26	92	85	77	70	64
28	93	86	78	71	65
30	93	86	79	72	66

2. What is the temperature of the dry-bulb thermometer? _____ (+2)
3. What is the temperature of the wet-bulb thermometer? _____ (+2)
4. Based on the temperatures shown in the diagram, what is the relative humidity of the air?
_____ (+2)

5. Which relative humidity below represents dry air? _____ (+2)

45 %, 75% 90%