

**McGraw-Hill Science © 2000, Texas Edition  
TAKS Practice Test**

**Grade 5, Chapter 4  
Weather Patterns and Climate**

**Name** \_\_\_\_\_

**Date** \_\_\_\_\_

Use the graph and your knowledge of science to answer Questions 1 and 2.

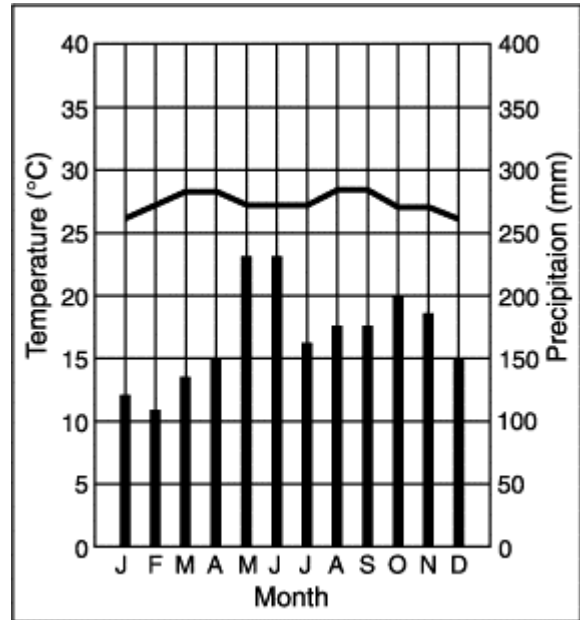
1 What were the two coldest months in City One during 1997?

- A January and February
- B November and December
- C January and December
- D March and June

2 Which of these questions does the graph best answer about City 1 in the year 1997?

- A Did more snow fall in January or February?
- B Why were April and August warmer than June and July?
- C On how many days in July did at least 20 mm of precipitation fall?
- D During how many months did at least 150 mm of precipitation fall?

**Average Temperature and Total Precipitation in City One, for the Year 1997**



**KEY:** Line shows temperature (°C)  
Bars show precipitation (mm)

3 Where would rainy, unsettled weather most likely form?

- A In the middle of a warm air mass
- B In the middle of a cold air mass
- C At a front—the meeting of two air masses
- D At a place without an air mass

4 Where do hurricanes form?

- A In the middle of a cold air mass
- B Over the ocean
- C Over the great plains of the United States
- D Over lakes and rivers

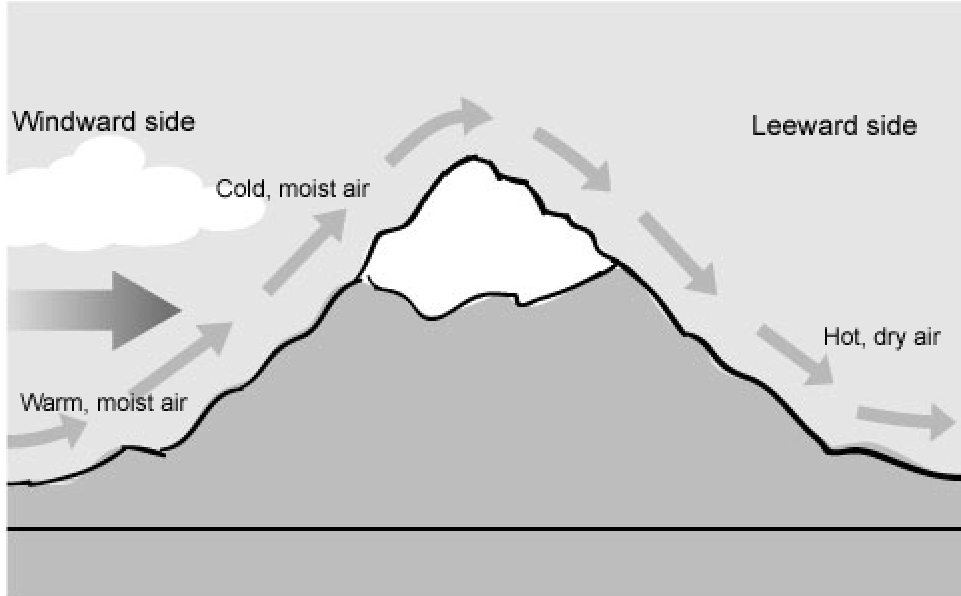
Use the illustration, text, and your knowledge of science to answer Questions 5, 6, and 7.

A student models the effects of the Sun and rainfall on soil. The materials are a tray of soil, a desk lamp, and water in a spray bottle.



- 5 What if the student poured water onto the soil instead of spraying it? What would she be modeling?
- A A snow storm
  - B A very heavy storm or flood
  - C The effects of farming or ranching
  - D How the ocean changes the land
- 6 Over one week, which of these procedures would work best to model a desert?
- A Keep the lamp lit all the time. Add little or no water.
  - B Turn on the lamp in the morning, turn it off at night. Add little or no water.
  - C Turn on the lamp for two hours at 12:00 Noon. Add little or no water.
  - D Keep the lamp lit all the time. Add as much water as falls every year on Earth's deserts.
- 7 What if the student wanted to model the tundra? Which additional material(s) would be most useful?
- A refrigerator
  - B freezer
  - C ammonia and carbon dioxide
  - D grasses and insects

Use this illustration and your knowledge of science to answer Questions 8 and 9.



**Air Passing Over a Mountain**

- 8 It can be inferred that before the air met the mountain, it blew over \_\_\_\_\_.
- A an ocean or other large body of water
  - B a pond, marsh, or small stream
  - C a desert
  - D a volcano
- 9 Why does less precipitation fall on the leeward side of the mountain than on the windward side?
- A The leeward side is colder.
  - B The leeward side is hotter.
  - C The leeward side borders a desert.
  - D The air cools when it meets the mountain. It loses much water on the windward side.

- 10** Temperatures on the Moon range from over 100 °C when the Sun shines to less than 115 °C below zero at night!

Why are Earth's temperatures more moderate than the Moon's temperatures?

- A** Earth is farther away from the Sun than the Moon is.
  - B** Earth's atmosphere acts as a protective blanket. The Moon lacks an atmosphere.
  - C** Earth's oceans moderate the temperature. The Moon lacks oceans.
  - D** The Moon is much flatter and rockier than the Earth.
- 
- 11** A violent, whirling wind that moves across the ground in a narrow path is known as a \_\_\_\_\_.
- A** hurricane
  - B** tornado
  - C** waterspout
  - D** tumbleweed

Use the chart and your knowledge of science to answer Questions 12 to 14.

### Weather Data for Anderson County (1984 – 2000)

Month	Average Temperature	Number of Rainy Days*	Number of Thunderstorms
July, 1984	26 °C	9	3
July, 1985	25 °C	7	2
July, 1986	26 °C	11	<b>6</b>
July, 1987	25 °C	6	2
July, 1988	27 °C	2	0
July, 1989	28 °C	9	4
July, 1990	27 °C	9	2
July, 1991	32 °C	3	0
July, 1992	30 °C	10	3
July, 1993	30 °C	4	1
July, 1994	29 °C	1	0
July, 1995	32 °C	6	2
July, 1996	28 °C	7	0
July, 1997	32 °C	5	1
July, 1998	<b>33 °C</b>	6	1
July, 1999	31 °C	<b>12</b>	5
July, 2000	30 °C	9	3

\*A rainy day is defined as a day of at least 1 centimeter of rain or other precipitation.

- 12** What trend in the weather does the chart show for Anderson County for the years 1984 to 2000?
- A** Precipitation in July gradually increased.
  - B** The average temperature in July gradually increased.
  - C** The number of thunderstorms in July gradually decreased.
  - D** The number of rainy days in July gradually decreased.

- 13** A scientist uses the data from Anderson County to argue that Earth's climate is becoming warmer. Which of the following facts, if true, would weaken her argument?
- A** From 1984 to 2000, Anderson County experienced great changes in its weather during the April months.
  - B** From 1960 to 1984, Anderson County experienced few changes in weather from year to year.
  - C** In 2001 and 2002, the average July temperature in Anderson County was 28 °C.
  - D** Other places around Earth report changes in weather similar to the changes in Anderson County.
- 14** During July of which year did the temperature rise above 30 °C most often in Anderson County?
- A** 1994
  - B** 1998
  - C** 2000
  - D** The chart does not provide the data needed to answer this question.

**ANSWER KEY and CORRELATIONS:**

<b>Question</b>	<b>Answer</b>	<b>TAKS</b>	<b>McGraw-Hill Science Grade 5 textbook</b>
1	C	5.2E	p. 177
2	D	5.2C	p. 177
3	C	4.6A	p. 151
4	B	4.11B	p. 166
5	B	5.2A	p. 179
6	B	5.2A	p. 179
7	B	5.2A	p. 179
8	A	4.6A, 5.6B	p. 181
9	D	4.6A, 5.6B	p. 181
10	B	5.12C	p. 182
11	B	4.6A	p. 164
12	B	5.2E	pp. 188, R21
13	C	5.3A	pp. 188, R21
14	D	5.2D	pp. 188, R21