

Name: _____

Period: _____

Chapter 14 Study Guide

14.1: Climates of Earth

1. What four factors determine climate?

- a.
- b.
- c.
- d.

2. Define climate:

3. How is climate different from weather?

For questions #4-9 decide whether climate or weather is being described.

4. On December 3rd 2017, the humidity in Vernon Hills was 65%.

5. Worldwide, 2015 was the warmest year on record and 2006–2015 was the warmest decade on record since thermometer-based observations began.

6. Twenty inches of rain and twelve feet of snow finally ended the 5-year drought in Northern California.

7. Buffalo, New York got more than six feet of snow between November 18th and the 20th in 2014.

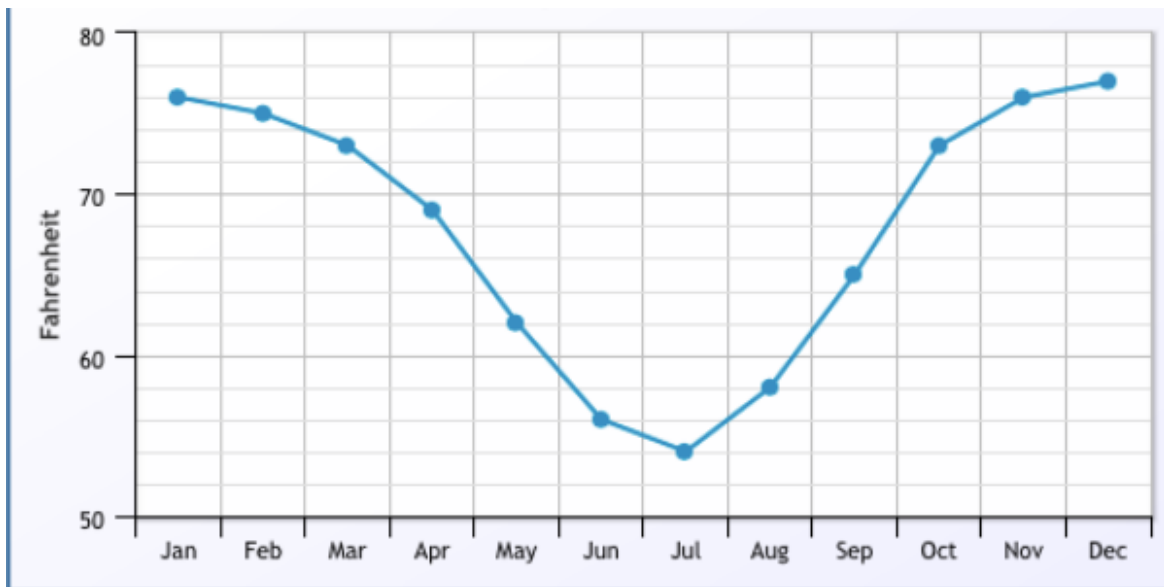
8. In several states, 2012 was among the driest years on record.

9. Since 1901, the average surface temperature across the contiguous 48 states has risen at an average rate of 0.14°F per decade. Average temperatures have risen more quickly since the late 1970s.

10. What does the latitude of a location determine?

11. Describe why the poles are colder than the equator.

12. What would happen to Vernon Hill's climate if its latitude moved from 42° to 10° ?
13. What would happen to Vernon Hill's climate if its latitude moved from 42° to 80° ?
14. Why is it winter in Australia when it is summer in the United States?
15. As altitude increases, _____ generally decreases.
16. The islands of Hawaii are located at a latitude close to the equator and yet it is possible to go skiing here. Explain why this is.
17. Why can one side of a mountain range be rich with vegetation and the other side be covered in desert.



18. Based on the temperature graph above, which month is the warmest?
19. Based on the temperature graph above, which month is the coldest?
20. Based on the temperature graph above, what hemisphere is this location in?
21. How do you know (explain your answer to the question above)?

14.2: Climate Cycles

On each line, write the term or phrase from the word bank that correctly completes each sentence. Some terms or phrases may be used more than once or not at all.

circular waves short-term

cold waves long-term tilt

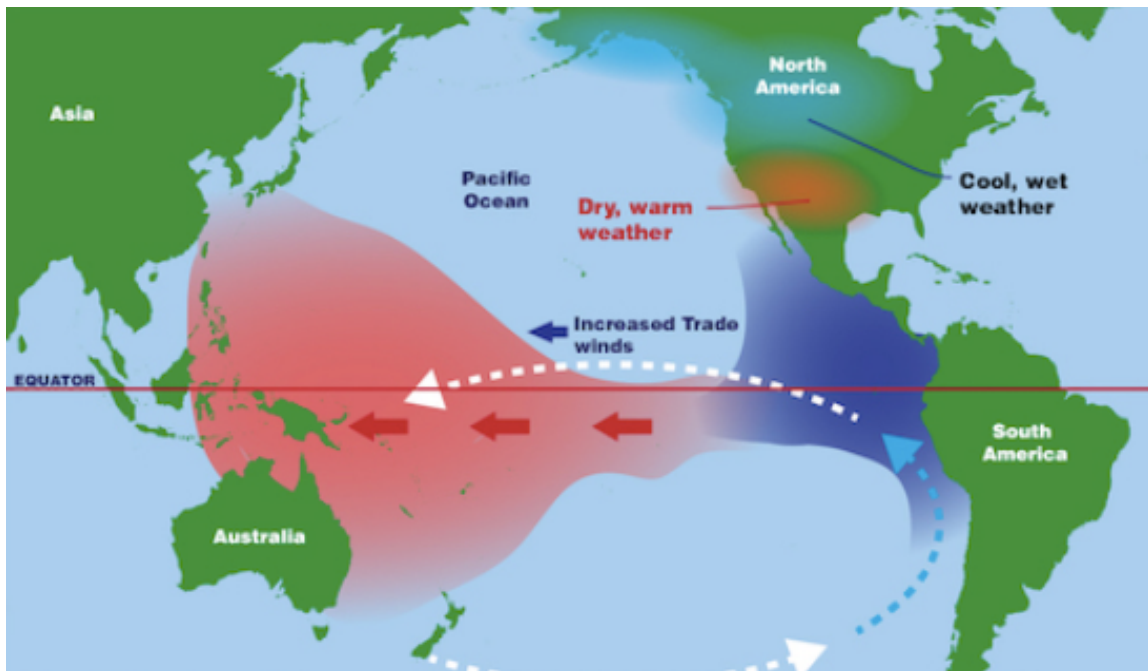
droughts monsoon on its axis

elliptical revolution

El Niño seasons

heat

1. Ice ages are _____ climate changes that occur when Earth's _____ is more _____ than it is today.
2. Seasons are _____ climate changes that result from Earth's _____.
3. _____ and _____ occur when hot air masses linger over a region for several weeks or months.
4. A(n) _____ is a(n) _____ climate change that is caused by changes in temperature over land and the nearby ocean.
5. _____ is a(n) _____ climate change that is the result of changes in wind patterns across parts of the Pacific Ocean.



6. Based on the map above, what ENSO event (el nina or la nina) is represented? Explain.

14.3: Recent Climate Change

1. What is climate change?

2. List 5 consequences that climate change has on Earth.
 - a.
 - b.
 - c.
 - d.
 - e.

3. What are three greenhouse gases which are increasing the greenhouse effect on Earth?
 - a.
 - b.
 - c.

4. Which of these greenhouse gases has been directly linked to an increase in global temperatures?

5. List three human caused sources of carbon dioxide.
 - a.
 - b.
 - c.

6. List three natural source of carbon dioxide.
 - a.
 - b.
 - c.

7. How can an increase in human population affect climate change?

8. List 5 ways YOU can help reduce green gas emission.
 - a.
 - b.
 - c.
 - d.
 - e.