

Name

Roland-Story Natural Resources Class

Meteorology Unit Chapter 14 Study Guide



points earned

	20 possible points
1.	List the five parts of the climate system.
2.	List and describe some methods and sources of data that scientists use to gain insights into the climates of the past.
3.	How does the plate-tectonics' theory help explain the previously 'unexplainable' glacial features in present-day Africa, South America, and Australia?

4.	Can plate-tectonics account for short-term climate changes? Explain.
5.	The volcanic eruptions in El Chichon in Mexico and Mount Pinatubo in the Philippines had measurable short-term effects on global temperatures. Describe and briefly explain these effects.
6.	List and describe each of the three variables that link Earth's motion and climate change.
7.	Do recent studies of the seafloor sediments tend to confirm or refute the importance of Milankovitch cycles? What do these studies predict for the future?

8.	List two examples of possible climate change linked to solar variability. Are these Sun-climate connections widely accepted?
9.	Why has the carbon dioxide level of the atmosphere been rising for more that 150 years?
10	. How are temperatures in the lower atmosphere likely to change as carbon dioxide levels continue to increase?
11	Aside from carbon dioxide, what other trace gases are contributing to a future global temperature change?

12. What are climate-feedback mechanisms? Give some examples.
13. What are the main sources of human-generated aerosols? What effect do these aerosols have on temperatures in the troposphere? How long do aerosols remain in the lower atmosphere before they are removed?
14. List four potential consequences of a greenhouse warming.

a.	Climate system
b.	Climate feedback –
c.	eccentricity -
d.	Milankovitch cycles –
e.	Negative feedback mechanism -
f.	obliquity –
g.	oxygen isotope analysis
h.	paleoclimatology –
i.	Plate tectonics theory –
j.	Positive feedback mechanism –
k.	Precession –
1.	Proxy data –
m.	Sunspot-
n.	Global warming –
0.	Greenhouse effect –
p.	Fossil pollen –
q.	Meteorite –
r.	Axial tilt –
S.	Drought –
t.	Aerosols

15. Define the following terms by using your book and/or the web site at www.rsffa.com, go to Meteorology link and play the hangman game