

**Earth and Environmental Science
Mid-Term Exam Study Guide**

Name: _____

DUE DATE: _____

UNIT 1- Lab Safety, Scientific Method & Maps

Lab Safety

True or False.

- _____ 1. Put used liquids into the original container.
- _____ 2. Let the teacher know immediately if something is broken.
- _____ 3. Taste liquids to see if they are salty.
- _____ 4. Follow all teacher instructions.

Scientific Method

Define: Hypothesis, Control group, Experimental group, Dependent Variable, Independent Variable, Six Steps of the Scientific Method

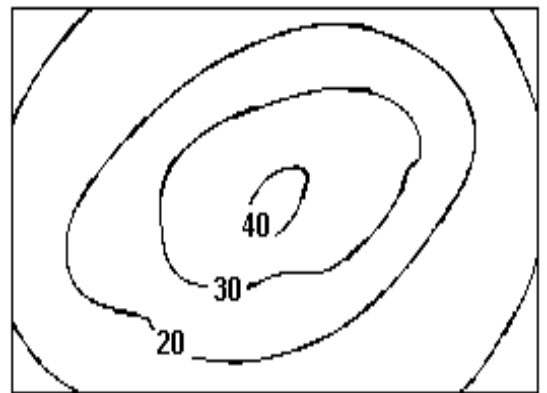
Sponge Bob noticed that his favorite pants were not as clean as they used to be. His friends Sandy told him that he should try using Clean-O detergent, a new laundry soap she found at Sail-Mart. Sponge Bob made sure to wash one pair of pants in plain water and another pair in water with the Clean-O detergent. After washing both pairs of pants three times, the pants washed in the Clean-O detergent did not appear to be any cleaner than the pants washed in plain water.

5. What was the problem Sponge Bob wanted to investigate?
6. What is the independent variable?
7. What is the dependent variable?
8. What is the control group?
9. What is the experimental group?
10. What should Sponge Bob's conclusion be?

Maps

Concepts and Definitions to Know: Contour lines, contour interval

11. What is shown on a topographic map?
12. What is represented when lines are close together on a topographic map?
13. What is represented when lines are further apart on a topographic map?
14. What is the contour interval of this map?
15. What is the highest possible point that could be represented on this map?
16. As you move toward the center of the map, is elevation increasing or decreasing?



Rocks

17. What are the two sources of energy that drive the rock cycle?

18. Complete the rock cycle diagram.

19. In what type of rock would scientist most likely find evidence of past life forms (fossils)

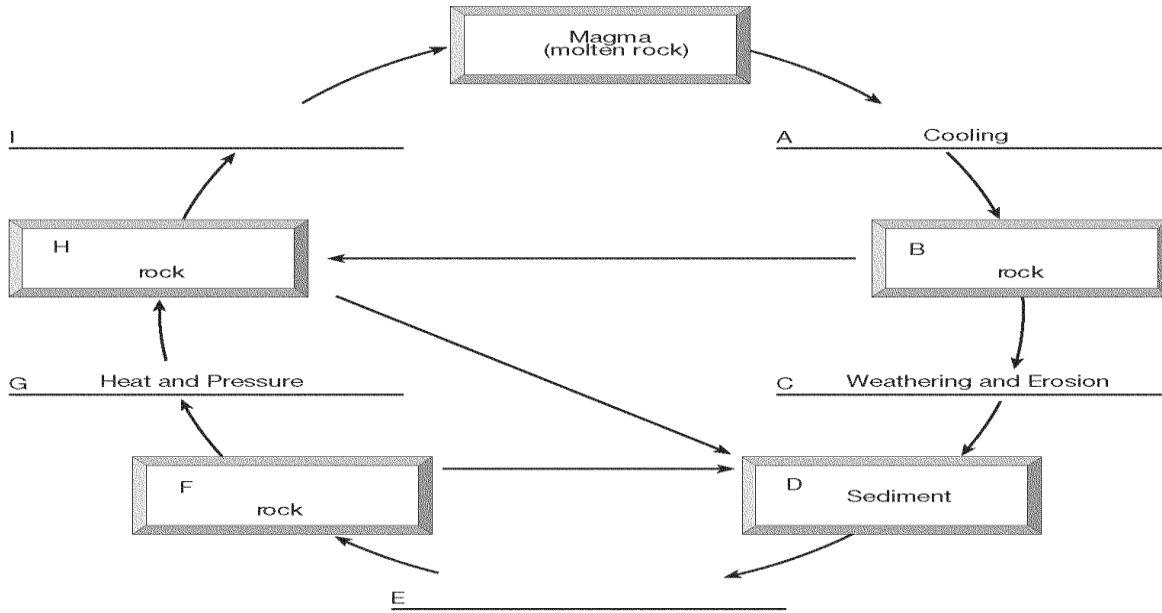


Figure 3-1

Unit 8- Meteorology

Air Mass

Concepts and Definitions to Know: Air mass, Continental, Tropical, Maritime, Polar

20. Label the air masses in Figure 20-1. (A-G)

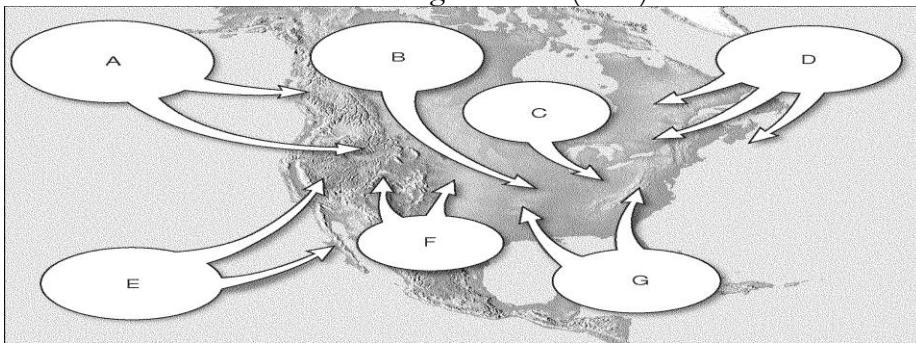


Figure 20-1

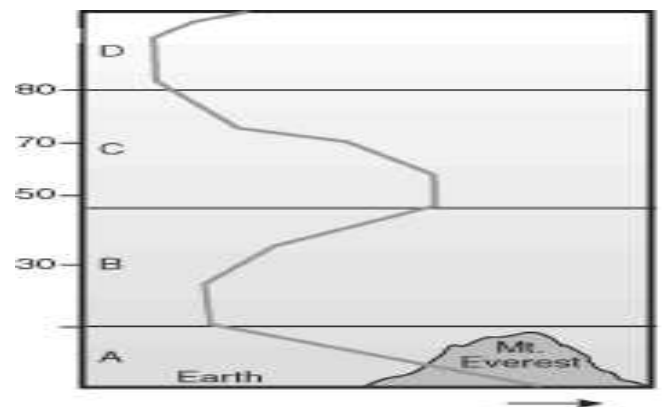
21. What type of air mass does Charlotte receive?

Weather Fronts

Concepts and Definitions to Know: Front, Cold front, Warm front, Stationary front, Occluded front

22. What type of weather is associated with the following fronts:

- a. Warm?
- b. Cold?
- c. Stationary?
- d. Occluded?



Atmosphere

23. Label the four atmospheric layers in the graph below. (A-D)
24. Which layer do we live in?
25. Which layer does weather occur?
26. Which layer contains the ozone?
27. Which layer do airplanes fly?

Unit 9- Air Pollution & Global Change

Global Warming

28. What causes/contributes to global warming?
29. True or False. CO₂ levels and global temperatures have both increased over the past 1000 years.

Air Pollution

Concepts and Definitions to Know: Causes, Solutions and Sources of Air Pollution

Greenhouse Gases

30. What are examples of greenhouse gases?
31. How do greenhouse gases allow us to live on Earth?

Climate

32. Create a chart of the six factors that affect climate and explain how they affect climate.
33. What are the two most important factors affecting climate?