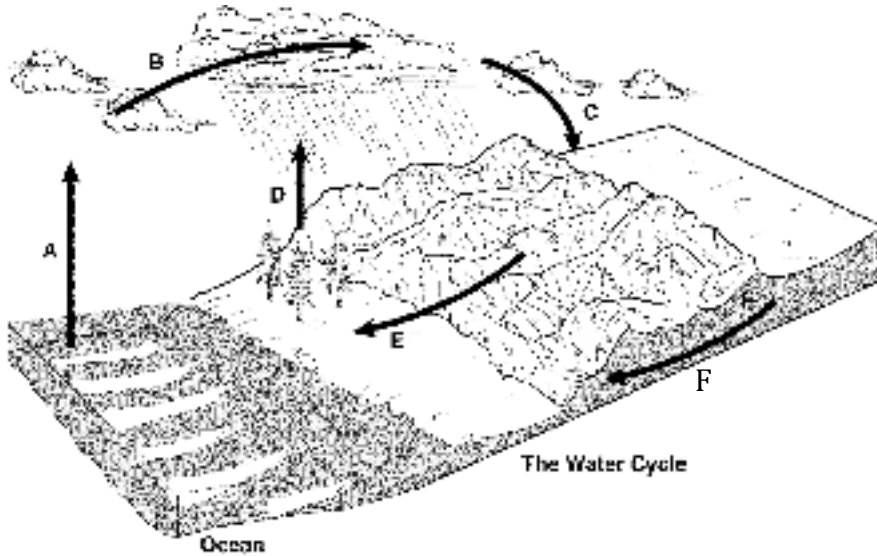


Name: \_\_\_\_\_ Block: \_\_\_\_\_

### **STUDY GUIDE**

#### Ch. 23 & 24: Hydrosphere, Atmosphere, and Weather

1. Label the arrows in the diagram with processes in the water cycle  
(Evaporation, Condensation, Precipitation, Transpiration, Infiltration, Runoff)



- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. \_\_\_\_\_
- D. \_\_\_\_\_
- E. \_\_\_\_\_
- F. \_\_\_\_\_

2. Draw the four layers of the atmosphere, starting with the layer closest to Earth. What might be found in each layer?

3. Define Weathering \_\_\_\_\_

4. Describe 5 methods of weathering

5. Define Erosion \_\_\_\_\_

6. List and describe 4 methods of erosion:

7. Explain why the Earth is colder near the poles and warmer near the equator.
8. What gas makes up about 78 percent of dry air?
- a. oxygen
  - b. nitrogen
  - c. hydrogen
  - d. carbon dioxide
9. As altitude increases,
- a. air pressure decreases, and density increases.
  - b. air pressure increases, and density decreases.
  - c. air pressure and density increase.
  - d. air pressure and density decrease.
10. Most weather takes place in the
- a. stratosphere.
  - b. thermosphere.
  - c. troposphere.
  - d. mesosphere.
11. The ozone layer is located in the
- a. lower troposphere.
  - b. lower thermosphere.
  - c. upper ionosphere.
  - d. upper stratosphere.
12. Earth's atmosphere is heated mainly by
- a. energy from inside the Earth's crust
  - b. visible light as it passes through the air.
  - c. reflected sunlight.
  - d. energy reradiated by Earth's surface.
13. The daily breezes that occur in a city that is located near a large body of water are examples of
- a. local winds.
  - b. monsoons.
  - c. global winds.
  - d. westerlies.
14. What type of front forms when two unlike air masses form a boundary, but neither is moving?
- a. warm
  - b. cold
  - c. stationary
  - d. occluded
15. A cold front forms when a cold air mass
- a. collides with a warm air mass and pushes the warm air up.
  - b. collides with a warm air mass and slides over the warm air.
  - c. collides with another cold air mass.
  - d. stops moving over a particular area.
16. A tropical storm with sustained winds of at least 119 kilometers per hour is called a
- a. tornado.
  - b. thunderstorm.
  - c. monsoon.
  - d. hurricane.

17. Which of the following factors affect a region's temperature?
- a. latitude and altitude
  - b. distance from large bodies of water
  - c. ocean currents
  - d. all of the above
18. Which of the following is an example of erosion?
- a. to wear down and carry away rock and soil through the force of gravity
  - b. to wear down and carry away rock and soil through the action of wind
  - c. to wear down and carry away rock and soil through the action of water
  - d. all of the above
19. Which processes are involved in erosion?
- a. precipitation, evaporation, and condensation
  - b. weathering, runoff, and transpiration
  - c. weathering, evaporation, and runoff
  - d. weathering, the force of gravity, and wind
20. Most of Earth's liquid fresh water is found in
- a. groundwater.
  - b. lakes and streams.
  - c. reservoirs.
  - d. glaciers.
21. Which of the following is NOT an agent of chemical weathering?
- a. rainwater
  - b. oxidation
  - c. frost wedging
  - d. carbonic acid
22. A rapid mass movement of large amounts of rock and soil down a slope is called a
- a. landslide.
  - b. slump.
  - c. creep.
  - d. mudflow.
23. Wind erodes the land by
- a. deflation and oxidation.
  - b. abrasion and chemical weathering.
  - c. deflation and plucking.
  - d. deflation and abrasion.
24. A sediment deposit formed when a stream flows into a lake or the ocean is called a(an)
- a. alluvial fan.
  - b. delta.
  - c. meander.
  - d. natural levee.
25. Deep currents in the ocean are caused by
- a. deep upwelling.
  - b. salinity changes with depth.
  - c. wind blowing across the ocean surface.
  - d. density differences of ocean water.
26. A description of the pattern of weather over many years is a region's
- a. weather forecast.
  - b. air mass.
  - c. climate.
  - d. weather system.
27. Which of the following climate changes may be affected by human activities?
- a. ice age
  - b. El Niño
  - c. global warming
  - d. monsoon
28. The daily breezes that occur in a city that is located near a large body of water are examples of
- a. local winds.
  - b. monsoons.
  - c. global winds.
  - d. westerlies.

## EXCEEDS

1. What are all the things that our atmosphere provide for us? What layer is the most important for us in our atmosphere and why?
2. What is the difference between usable and unusable water. How is water distributed on Earth?
3. How would the atmosphere change as a climber scales Mt. Everest, and what dangers from the atmosphere would he experience at the top of the mountain?
4. Why role does the sun have on Earth's weather? EXPLAIN 2 ways
5. The water you drink today could be the same water a dinosaur drank, explain how this could be possible?
6. What sort of weather/erosion to do we need to be concerned with living in the state of Oregon?
7. What type of climate would cause weather and erosion to be the fastest? Pick one climate and explain.