

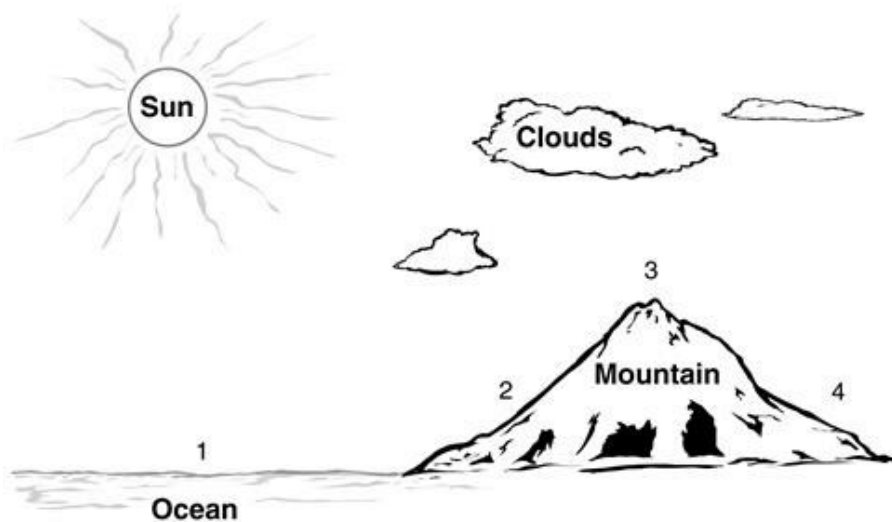
**TEST NAME: williams montessori Science Unit 1**  
**TEST ID: 2853762**  
**GRADE: 07 - Seventh Grade**  
**SUBJECT: Life and Physical Sciences**  
**TEST CATEGORY: School Assessment**

Student: \_\_\_\_\_  
Class: \_\_\_\_\_  
Date: \_\_\_\_\_

1. In which layer of the atmosphere does MOST of Earth's weather occur?

- A. the exosphere, which is the outermost layer
- B. the troposphere, which is the lowest layer
- C. the thermosphere, which has the highest temperature
- D. the stratosphere, which contains a sub-layer of ozone

2. A diagram is shown.



Which statement is correct about this diagram?

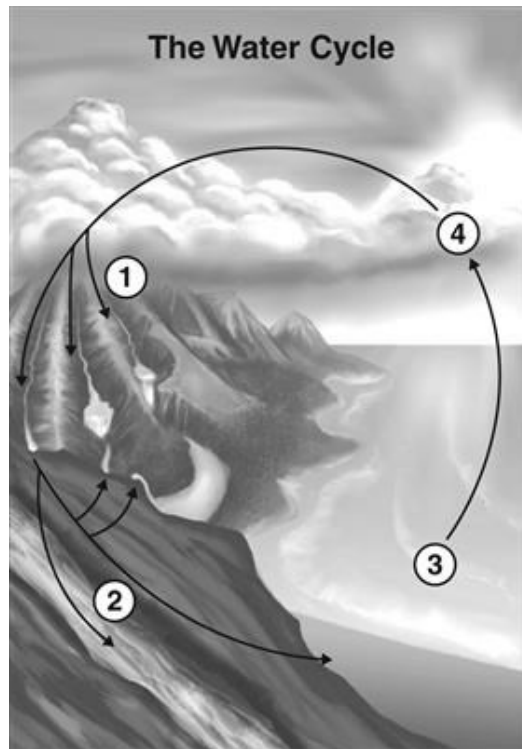
- A. The least amount of evaporation happens at Location 1.
- B. Location 4 receives the least amount of precipitation.
- C. Location 2 receives snow while Location 3 receives rain.
- D. The greatest amount of condensation happens at Location 4.

3. In which layer of the atmosphere is ultraviolet radiation filtered out by ozone?

- A. mesosphere
- B. stratosphere
- C. thermosphere
- D. troposphere

4. Which **best** describes water moving from land of higher elevation into a river or stream?
- A. condensation
  - B. evaporation
  - C. precipitation
  - D. runoff
5. Which **best** describes transpiration?
- A. water that seeps into the ground
  - B. water that is released from plant leaves
  - C. water that runs off rocks and hard surfaces
  - D. water that is absorbed into clouds from the oceans

6. **This diagram shows the water cycle.**



**What event happens at Point 3?**

- A. Tides move the ocean water.
  - B. Waves move ocean water onto the shore.
  - C. Organisms in the ocean breathe oxygen in the water.
  - D. The Sun heats ocean water causing some to evaporate.
7. **An air mass in a valley travels up a mountainside. What causes the movement of this air?**
- A. tidal pull of the Moon's gravity
  - B. evaporation of water from soil in the valley
  - C. warming by solar energy re-radiated from the ground
  - D. cooling effect of ice crystals in the air over the mountain
8. **Which type of activity would MOST likely be included on a weather map?**
- A. satellite
  - B. seismic
  - C. volcanic
  - D. hurricane

9. **Which condition is associated with MOST warm fronts?**
- A. tornado formations
  - B. low temperatures
  - C. violent air mass collisions
  - D. cloud formations bringing precipitation
10. Barometric pressure has been dropping all day. What weather conditions will **most likely** occur?
- A. sunny weather
  - B. stormy weather
  - C. calm weather
  - D. hot weather
11. Which **best** describes high-pressure systems in North America?
- A. They change quickly.
  - B. They bring fair weather.
  - C. The air in them is cold and dense.
  - D. The air in them moves counterclockwise.
12. On a weather map, which is being measured at locations with the same isobars?
- A. rainfall
  - B. wind speed
  - C. temperature
  - D. air pressure
13. **Which of these events have the MOST influence on regional climate?**
- A. frequent tornadoes
  - B. ocean trade winds
  - C. winter snowstorms
  - D. temperature inversions

14. Which **best** explains how convection currents are affected by the temperature of coastal areas?
- A. Coastal areas are cooler during the day and warmer during the night.
  - B. Coastal areas are warmer during the day and cooler during the night.
  - C. Coastal areas have no changes in temperature between the day and the night.
  - D. Coastal areas have no winds that influence temperatures during the day or the night.
15. When an island's land surface heats faster than the surrounding water, which will be created?
- A. hail
  - B. rain
  - C. snow
  - D. wind
16. **Scientists monitor ozone in the upper atmosphere and at ground level. Changing concentrations of each can cause health problems for people. Which set of changes would cause the MOST health concerns?**
- A. an increase in both atmospheric and ground level ozone
  - B. a decrease in both atmospheric and ground level ozone
  - C. an increase in atmospheric ozone, and a decrease in ground level ozone
  - D. a decrease in atmospheric ozone, and an increase in ground level ozone
17. **Measurements of carbon dioxide concentrations in the air taken over the past decade have shown a**
- A. leveling off.
  - B. slow increase.
  - C. steady decline.
  - D. dramatic increase.

18. **In the 1970s scientists began investigating the chemical reactions that caused the destruction of ozone in the upper atmosphere. Which statement BEST describes a direct result of their research on society and on the environment?**
- A. Global positioning technology was invented.
  - B. Research on a reusable space shuttle was initiated.
  - C. Alternatives to ozone-depleting aerosols were invented.
  - D. Plastic bags were invented as an alternative to paper bags.