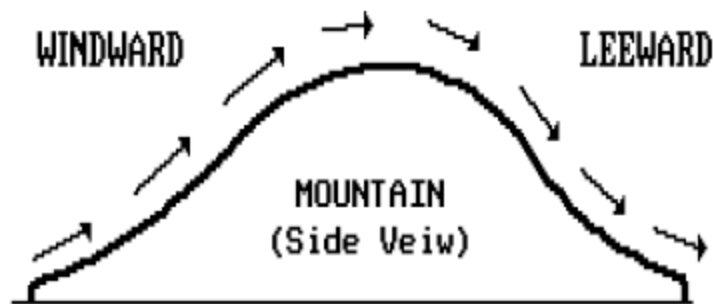


Name: _____

Date: _____ Period: _____

Worksheet: Rainfall Patterns

- The energy gained by water during evaporation is later released by the water vapor during the process of
 - transpiration
 - condensation
 - convection
 - melting
- The diagram below shows the direction of movement of air over a mountain. As the air moves down the leeward side of the mountain, the air will

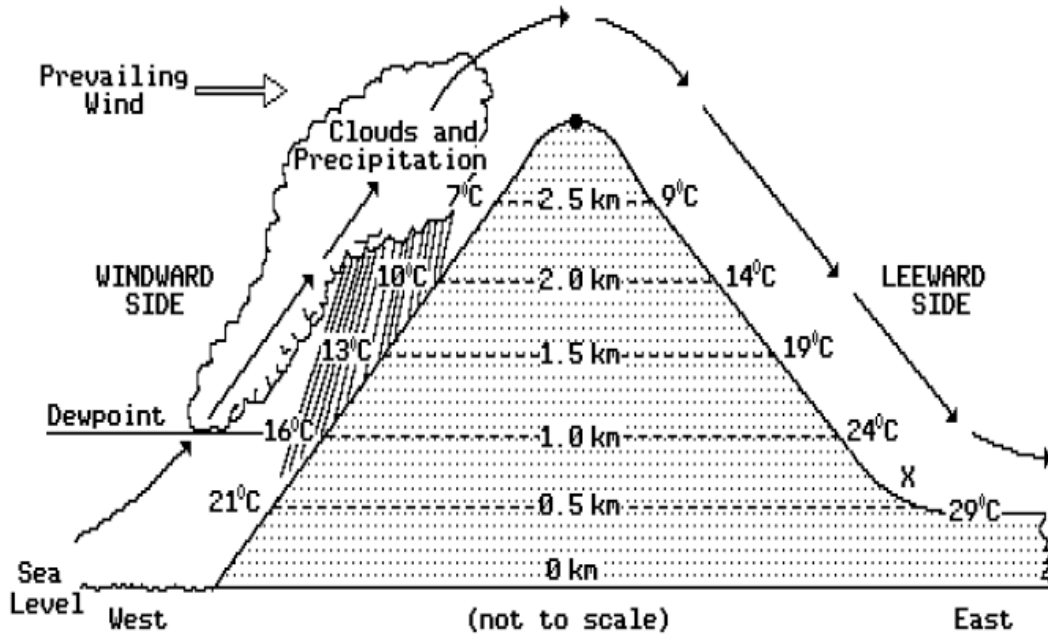


- warm due to expansion
 - cool due to expansion
 - warm due to compression
 - cool due to compression
- Which process most directly results in cloud formation?
 - transpiration
 - precipitation
 - radiation
 - condensation
 - A higher concentration of water vapor is found in the atmosphere over New York State in the summer than in the winter because in the summer there is a greater
 - rate of evapotranspiration
 - concentration of air pollutants
 - frequency of high pressure
 - amount of water in ground storage

Worksheet: Rainfall Patterns

Questions 5 through 6 refer to the following:

The diagram below shows a mountain. The prevailing wind direction and air temperatures at different elevations on both sides of the mountain are indicated.



5. On which side of the mountain and at which elevation is the relative humidity probably 100%?
- on the leeward side at 1.0 km
 - on the windward side at 1.5 km
 - on the leeward side at 2.5 km
 - on the windward side at 0.5 km
6. How does the temperature of the air change as the air rises on the windward side of the mountain between sea level and 0.5 kilometer?
- The air is warming due to expansion of the air.
 - The air is warming due to compression of the air.
 - The air is cooling due to expansion of the air.
 - The air is cooling due to compression of the air.