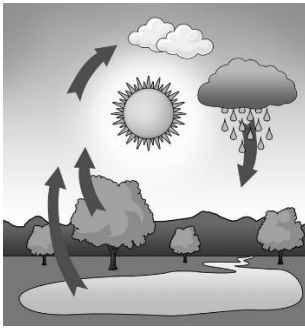


Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

### Topic 5 lessons 1-5 Assessment

The diagram shows the typical weather and cycling of water around a lake fed by a mountain stream. Use the diagram to answer questions 1-4.



- Describe the process indicated by the upward arrows.
  - Water evaporates from the lake and trees into the air to form clouds
  - Water vapor rises by transpiration from the land into the warmer air.
  - Water changes into vapor (gas) by transpiration and evaporation and rises in warm air.
  - Water vapor moves by evaporation and transpiration from the lake to the clouds.
- Suppose you are caught outside during a thunderstorm near this lake. Which of the following actions is most likely to protect you from harm?
  - Get under the largest nearby tree and stay next to its trunk.
  - Get into the water of the lake, staying very near the shoreline.
  - Get in a rowboat and quickly move close to the center of the lake.
  - Move away from the water and trees to a low area and crouch down.
- In the winter, areas to the east of this lake are often affected by lake-effect snow. This occurs most often when the jet stream dips to the south of the lake, allowing a shift in the prevailing winds such that a westerly wind blows over the lake. Under which additional condition is lake-effect most likely to occur.
  - When the lake water is warmer than the surrounding land
  - When the waves on the lake create a rough surface over which the wind blows
  - When the lake water is colder than the surrounding land
  - Only after the lake surface has frozen over with ice

4. Near the top of the picture is a cloud. Which combination of factors is necessary to produce this cloud?
- A. Water vapor in the air, warm air temperature and solar energy
  - B. Water vapor in the air, cool air temperature and small electrical charges in the air.
  - C. Water vapor in the air, cool air temperature, and small particles in the air.
  - D. Water vapor in the air, a warm air mass, and small particles in the air.
5. Which statement refers to weather rather than climate?
- A. This area usually has a relative humidity lower than 50%
  - B. A thunderstorm is expected today
  - C. Precipitation amounts have increased over the last several years
  - D. The temperature is usually around 24 degrees Celsius (75 degrees Fahrenheit)