

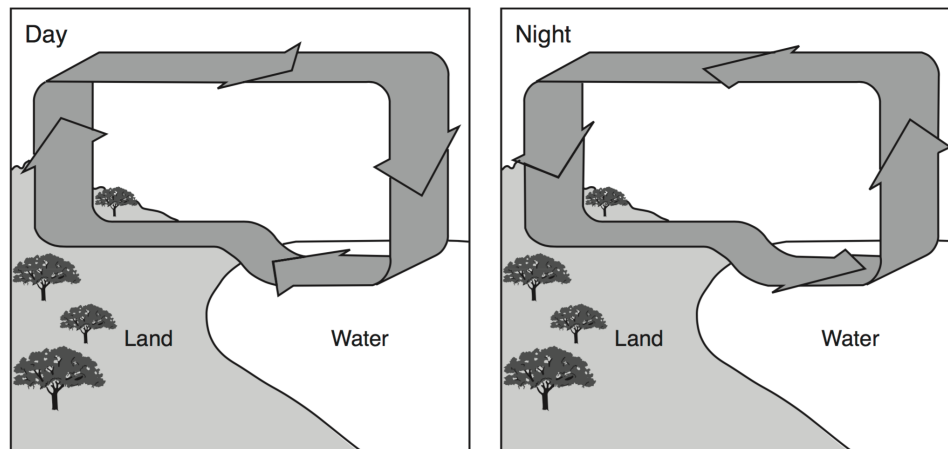
Name: _____

Date: _____ Period: _____

Worksheet: Weather Variables

1. A balloon carrying weather instruments is released at the Earth's surface and rises through the troposphere. As the balloon rises, what will the instruments generally indicate?
 - a. an increase in both air temperature and air pressure
 - b. a decrease in air temperature and a increase in air pressure
 - c. an increase in air temperature and a decrease in air pressure
 - d. a decrease in both air temperature and air pressure
2. Wind moves from regions of
 - a. high temperature toward regions if low temperature
 - b. high humidity toward regions of low humidity
 - c. high precipitation toward regions of low precipitation
 - d. high pressure toward regions of low pressure

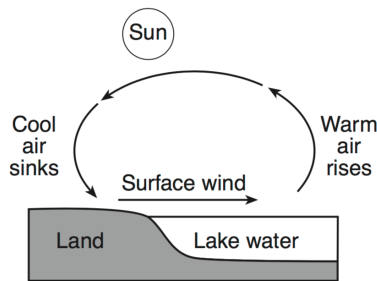
The diagram below represents the circulation of air above Earth's surface at a coastal location during the day and at night.



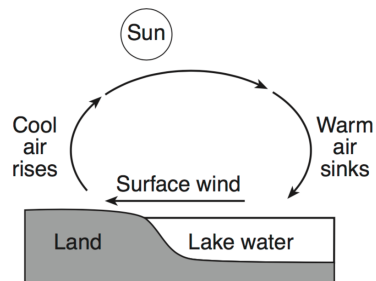
3. This local air movement is best described as an example of
 - a. conduction between Earth's surface and the atmosphere above it
 - b. condensation of water vapor during the day, and evaporation water during the night
 - c. convection resulting from temperature and pressure differences above the land and water
 - d. greater radiation from the warmer ocean during the day and from the warmer land at night
4. The primary cause of winds is the
 - a. uniform density of the atmosphere
 - b. unequal heating of the Earth's atmosphere
 - c. friction between the atmosphere and the lithosphere
 - d. rotation of the Earth

Worksheet: Weather Variables

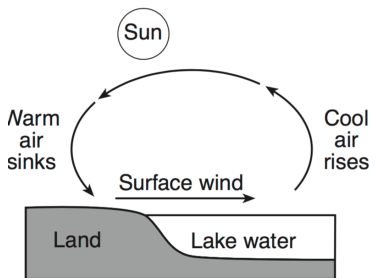
5. Which layer of the atmosphere experiences a decrease in temperature?
- Stratosphere
 - Thermosphere
 - Troposphere
 - Exosphere
6. Which process most directly results in cloud formation?
- transpiration
 - precipitation
 - radiation
 - condensation
7. Which factor is most directly related to wind velocity?
- relative humidity
 - pressure gradient
 - dewpoint
 - cloud type
8. Which cross section best represents how surface winds form by mid-afternoon near a shore summer day? [Diagrams are not drawn to scale.]



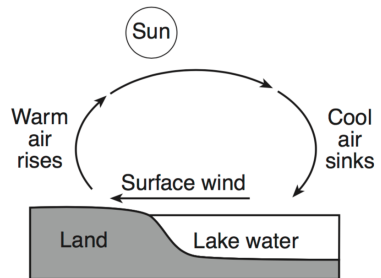
a.



b.



c.



d.