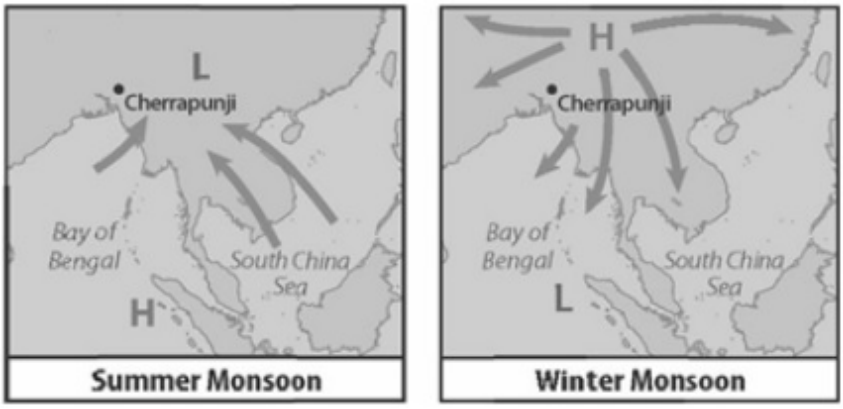
Student Name: _____ Date: _____

Lesson Check: Atmospheric and Oceanic Circulation

1) Monsoons are seasonal winds that affect some parts of the world. The figures below show wind circulation patterns during monsoons. What causes these patterns?



2) The Coriolis Effect helps distribute heat around the surface of Earth.

- ○ True
- ○ False

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Lesson Check: Atmospheric and Oceanic Circulation

3) Which sentence about an ocean current is correct?

- **A)** Upwelling is caused by winds that blow on the ocean's surface.
- **B)** Upwelling moves water horizontally.
- **C)** Surface currents are caused by differences in water density.
- **D)** Surface currents move vertically through the water.

4) When cool, dense air from over the water flows inland, it's called a _____.

- **A)** land breeze
- **B)** polar easterly
- **C)** jet stream
- **D)** sea breeze

5) The _____ _____ is the wind system responsible for the movement of weather from west to east across most of the continental United States.

6) Steady winds between the equator and 30° latitude north or south are known as the _____.

- **A)** prevailing westerlies
- **B)** jet stream
- **C)** polar easterlies
- **D)** trade winds

7) An increase in ocean salinity can change _____ and create a current.

- **A)** the temperature near the poles
- **B)** the density of water
- **C)** the Coriolis Effect
- **D)** the wind speed across the surface

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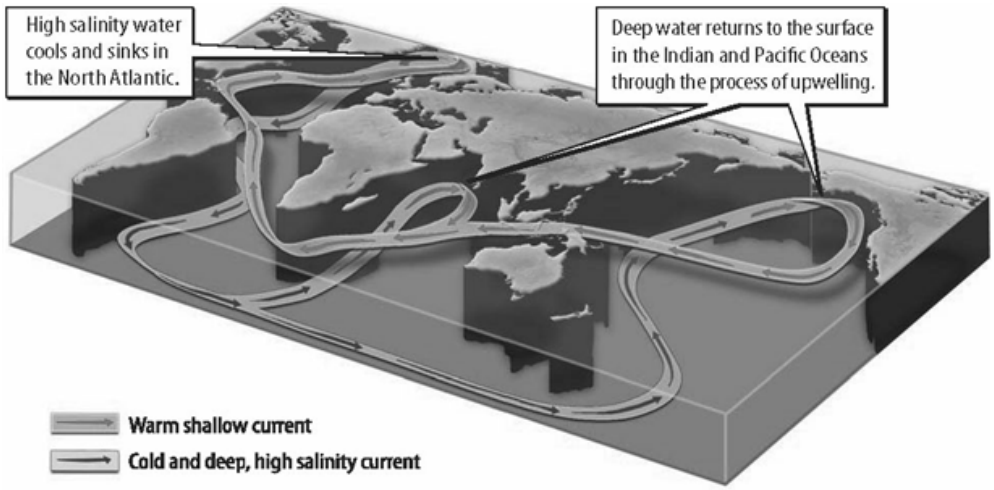
Lesson Check: Atmospheric and Oceanic Circulation

8) Which of the following occurs when wind blows across the ocean's surface, pushing water away from an area?

- **A)** upwelling
- **B)** surface current
- **C)** density current
- **D)** salinity current

9) The figure shows the Great Ocean Conveyor Belt. Which best describes what this model represents?



- **A)** how the density of water differs between the North Atlantic and other parts of the ocean
- **B)** how ocean currents change the salinity of water
- **C)** how ocean currents move heat energy around Earth
- **D)** how the salinity of water affects its density

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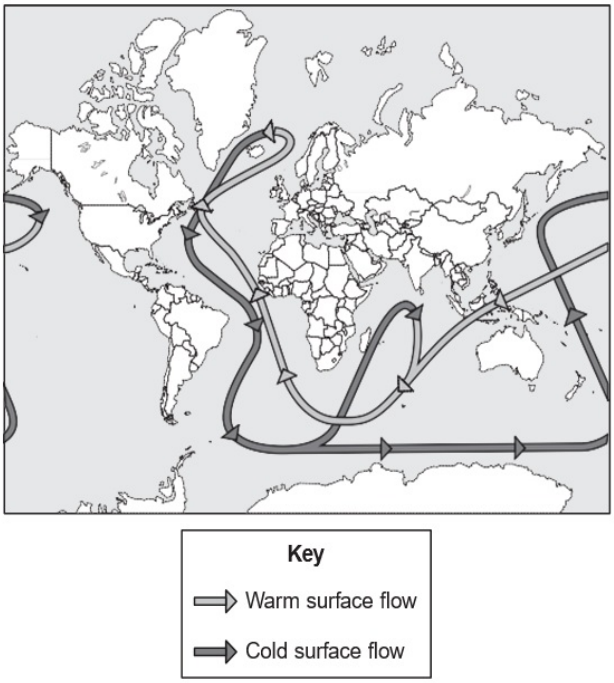
10) The map shows the global circulation pattern of ocean currents.



Elliot wants to set up a model that best represents how this type of pattern is created in the ocean. Which model should he use?

- **A)** Add red food coloring to one end of a tank of water and blue food coloring to the other. Then allow a fan to blow across the surface.
- **B)** Add several drops of red food coloring and several drops of blue food coloring to water in a jar. Then place the lid on and shake the jar.
- **C)** Slowly pour hot water that has red food coloring into a tank of water that is at room temperature. Then quickly pour cold water that has blue food coloring into the tank.
- **D)** Pour hot water that has red food coloring and cold water that has blue food coloring into a tank of water that is at room temperature. Then have a heat lamp shine on the water.