

Specific heat and convection currents- test na logickou návaznost

Ss

Fill the gaps 1-10 with an appropriate part of a sentence A-J.

Convection currents can form because different parts of the earth receive unequal amounts of the sun's energy. Convection currents can also form because ..1.....

At the beach on a hot summer day, you often feel a cool breeze blowing in from over the water. Also, if you were in a boat out in the water, ..2.....

These things happen because land temperatures change faster than water temperatures.

At the beach, the same amount of sunlight is shining on both the sand and the water. The surface sand becomes so hot that ..3.....The surface water remains cool. This indicates that it takes more energy to warm the water than ..4.....

Water has what is called a higher specific heat than sand has. **Specific heat** is the amount of energy needed to raise 1 g of a substance 1°C. Water, in fact, has the ..5.....

The difference in specific heat between land materials and water causes ..6.....

During the day, the surface of the water is cooler than the surface of the land. The air over the water cools, sinks, and flows toward the land. The air over the land is ...7.....

The warm air over the land is forced upward by the cooler, denser air. A sea breeze forms, flowing from the sea to the land. This breeze is called an **onshore breeze** because ..8.....

It can blow inland for many kilometers.

At night, just the opposite happens. Because the land materials contain less heat than water does when both materials are at the same temperature, ..9.....

Also, temperature differences between land materials and water are affected because the different surfaces reflect, absorb, and radiate energy in differing amounts.

At night, therefore, land temperatures become cooler than the temperature of the surface of the water. A convection currents forms. The cooler, denser air over the land ..10.....

This time a land breeze forms, flowing from the land to the sea. This breeze is called an **offshore breeze** because it blows off or away from the shore.

- A. hotter and less dense than the cooler air pushing in from the sea.
- B. it burns your feet.
- C. land materials cool off faster than water.
- D. highest specific heat of any common natural substance.
- E. different materials on the earth surface absorb heat differently.
- F. the air would be cooler than it is on the beach.
- G. sinks and spreads out over the water.
- H. convection currents to form along coastal areas.
- I. it does to warm the sand.
- J. it blows onto the shore from out over the sea.