

► **Key Question: What are some examples of convection in the environment?**

In the last section you learned about convection currents. Remember that convection is one way thermal energy is transferred. Uneven temperatures cause convection currents in fluids.

Think back to the example of the boiling pot of water:

- Water at the bottom heats first because it is closer to the heat source.
- The cooler, denser liquid sinks.
- The warmer, less dense liquid rises.

This creates a convection current.

You also learned that convection currents happen to any liquid or gas. Air in a heated room can create a convection current due to uneven temperatures.

Heat from the Sun can also form convection currents. When the Sun heats Earth unevenly, large convection currents in the air form. We know these as "wind." Wind is a convection current!

CONVECTION ON COASTS

It is often windy near an ocean or large lake. In the daytime, the wind comes off the water toward the land. At night, the wind moves from the land toward the water.

Why does it switch like that? The wind changes direction because of uneven temperatures. The Sun does not heat land and water evenly.