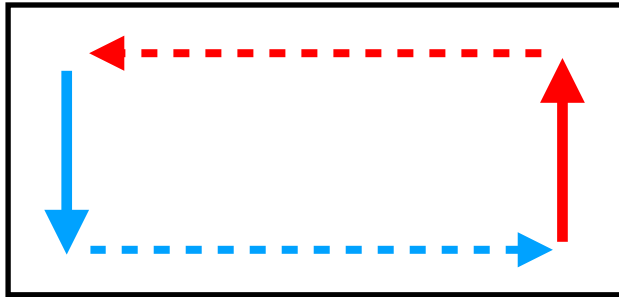


How will the fluid in each container respond to the heating/cooling conditions?

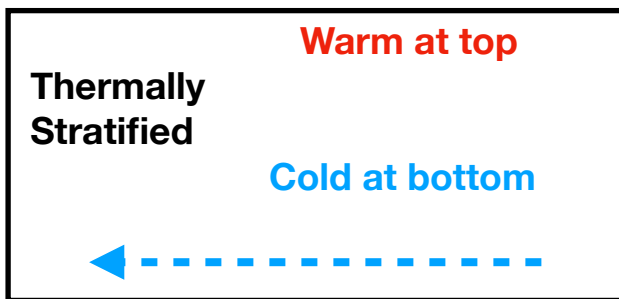


Warmed air rises and may trigger summer rain showers.

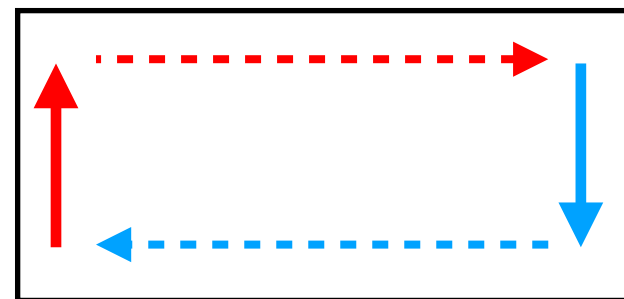


Pond water becomes thermally stratified during the summer with the cool water remaining at the bottom all summer.

**Key:** Cold Convection: solid blue arrow  
Warm Convection: solid red arrow  
Cold Advection: dashed blue arrow  
Warm Advection: dashed red arrow



Air near the ground becomes thermally stratified at night as the ground cools.



As the water cools and becomes denser than the water below, it sinks. Remember, water is densest at 4°C (39°F).