**Section 3 – Water and Climate**

* Like plants and animals, people need fresh water to live
* How long can a human being survive without water?
* Water is influential in shaping climates

A. Oceans and Climate

* Oceans and large bodies of water help spread Earth’s heat
* Global temperature differences and wind patterns create ocean currents
* These currents move across great distances, transporting warm water from the tropics to the poles
* Also transport cool water from the poles to the tropics
* Water temperature impacts the air temperature
* Warm water warms up the air above it
* Cold water cools the air above it
* Water takes longer to heat or cool than land
* As air and land heat up, water remains cooler
* Wind blows over this cool water, which cools the land nearby
* Land near water will be cooler during the heat of the summer

B. The Water Cycle

* Earth’s water is always moving
* This process is known as the water cycle
* **Water Cycle** –
* The Sun’s heat makes water evaporate from a sea or lake and rise into the sky as water vapor
* Water vapor condenses to form clouds, made up of little drops of water
* As clouds and moist air rise, they cool - Larger droplets of water condense and fall to the ground as rain
* Water seeps into the ground or runs into streams – the water then flows into a lake or ocean or evaporates