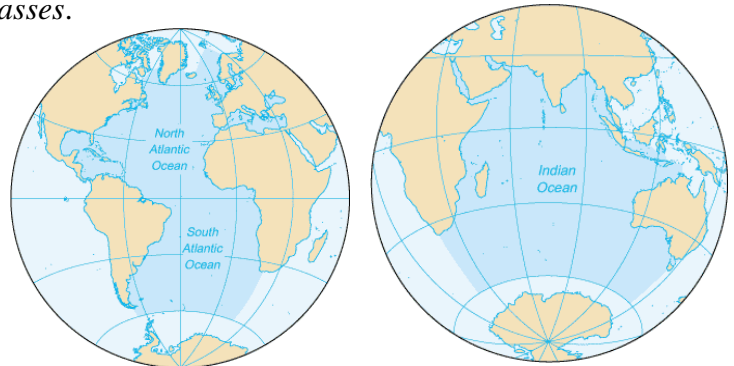


29. Hydrosphere – oceans and seas

Water concentrated in oceans and seas creates continual cover of the Earth resulting in the *world ocean*. It is very important because it decreases air temperature amplitudes, influences atmospheric circulation => *influences also climate of land masses*.

World ocean is divided into 4 (5) main oceans:

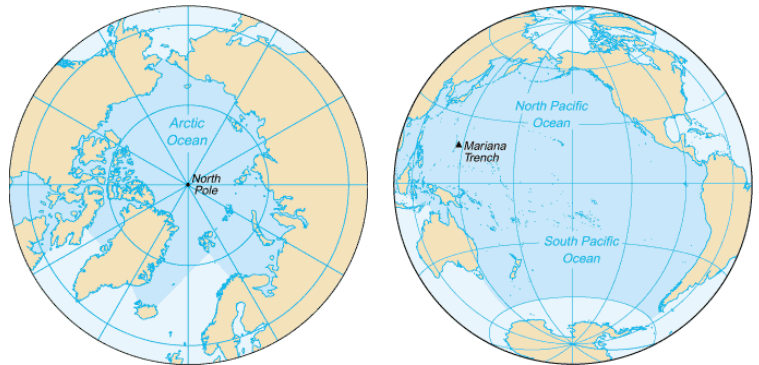
- *Pacific ocean* – the largest
- *Atlantic ocean* – the longest
- *Indian ocean*
- *Arctic ocean* – the coldest
- *Southern ocean* – waters surrounding Antarctica



Ocean has its own characteristics including its formation, floor relief, currents, etc.

Sea is a part of ocean and quite different as well ⇔ river water, river sediments, etc. Seas can be divided into several types:

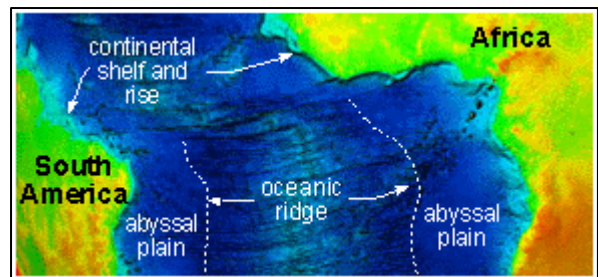
- marginal seas – Arabian Sea, Tasman Sea, etc.
- inland seas – Black Sea, Mediterranean Sea, etc.



Relief of oceanic floor

= consists of several parts:

- ❖ *continental shelf* – at coastal areas
- ❖ *continental slope*
- ❖ *oceanic basin (plain)* – create approx. 50% of oceanic floor
- ❖ *oceanic trench* – narrow depressions
- ❖ *mid-oceanic ridge* – e.g. Mid-Atlantic ridge



Sediments

- continental sediments – brought into oceans by rivers, glaciers and wind
- abyssal sediments – created by remains of dead marine micro-organisms and volcanic materials

Keywords

world ocean, temperature amplitudes, marginal/inland seas, continental shelf/slope, oceanic basin/trench, mid-oceanic ridge, continental/abyssal sediments