



6. False, the higher the temperature, the lower the density.



7. With increasing water depth the density (pycnocline) goes up and the temperature (thermocline) goes down.



8 & 9. see figure above

- 10. warm currents come from low latitudes, cold currents from high latitudes.
- 11. gyres flow clockwise in the northern hemisphere (counterclockwise in the southern hemisphere)

- 12. Warm equatorial currents may keep northern coastal regions warmer and wetter than usual and cold polar currents may keep southern coastal regions cooler and dryer than usual.
- 13. cations Na+, Mg++, Ca++, K+ anions Cl-, SO4--, carbonate
- 14. the proportion of cations and anions in sea water does not change, the salinity may change due to addition or removal of fresh water
- 15. see the figures on the following page
- 16. 35.25 ‰
- 17. 0° average salinity
 - 30° above average salinity
 - 60° below average salinity
- 18. average salinity high precipitation and high temperatures
- 19. evaporation because you are close to the hot, sub-tropical dessert region
- 20. melting of glaciers and sea ice during the spring and summer



30-

25

20-20-15-10-10-5-5-

0-

-5+ -60

-40

-20



0 Latitude 20

40

60