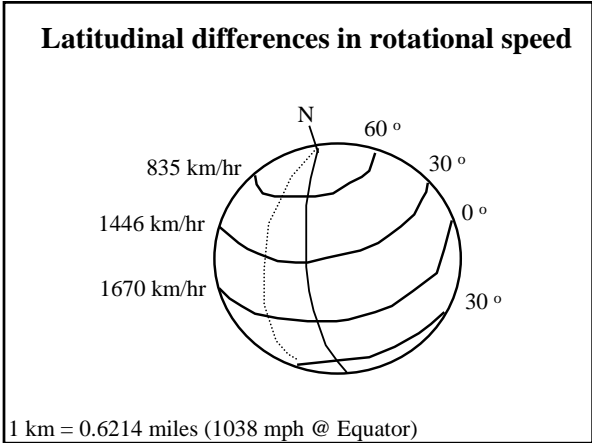


Coriolis Effect

Apparent curvature in the direction of travel of a body moving over a spinning object.

For winds and ocean currents, it's caused by latitudinal differences in the rotational speed of Earth.



Understanding the Coriolis Effect

What would happen if you try drawing a straight line on a spinning record?

Earth rotates out from under objects in motion over its surface creating a curved path for observers on the surface.

How will motion be deflected in the Northern & Southern Hemispheres?

Northern Hemisphere Southern Hemisphere

Pattern of General Circulation

Polar Hadley Cells, Tropical Hadley Cells, Polar Easterlies, Westerlies, N.E. Trades, S.E. Trades, Equator, 60°, 30°, 30°, 60°

Vertical Structure in the Ocean

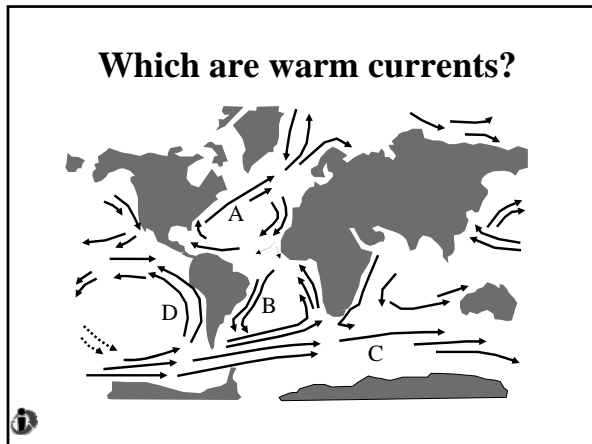
60° N, 30° N, 0°, 30° S, 60° S

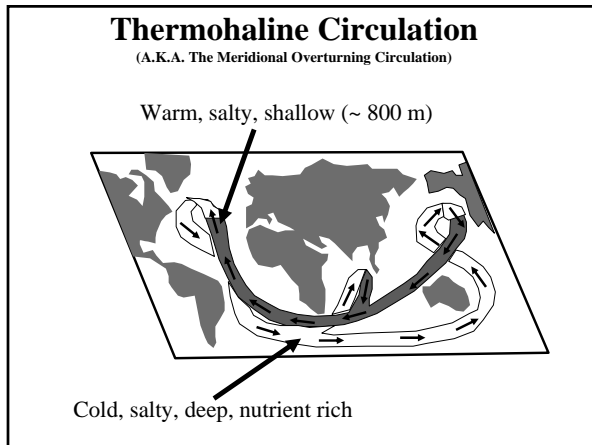
Depth (km): 1, 2, 3, 4

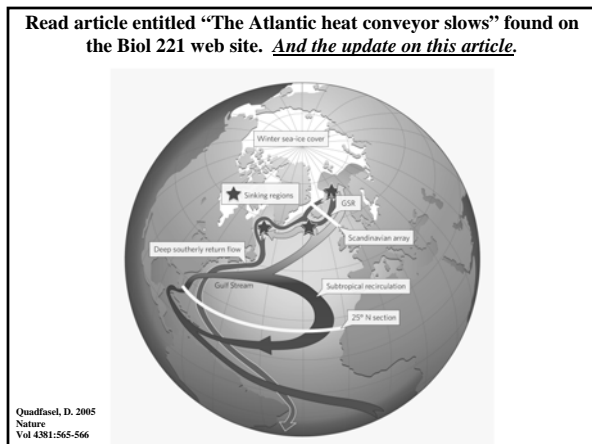
Mixed, Thermocline, Cold, Deep Water

Ocean Floor

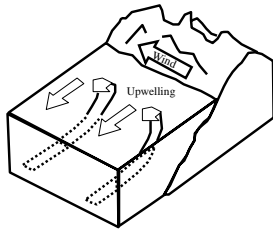
Temp. Salinity (C) (o/oo)







Coastal Upwelling in S. Hemisphere



Result of Ekman Drift

Net transport of water to the right of the wind in the N. Hemisphere & to the left of the wind in the S. Hemisphere.

