Concentrations of CO$_2$ in near-surface water are small because of exchange with the CO$_2$-poor atmosphere at the sea surface, and because of downward mixing by waves and eddies.

Concentrations of CO$_2$ just below the thermocline are relatively large because oxidation of sinking organic particles produces CO$_2$.

Concentrations of CO$_2$ in abyssal waters are more than those in surface waters because oxidation of sinking organic particles produces CO$_2$.

Concentrations of CO$_2$ in deep waters of the Pacific are typically greater than those in the Atlantic because Pacific deep water has had more time to accumulate CO$_2$ from oxidation of organic matter.

Concentrations of CO$_2$ in deep waters of the Atlantic are typically less than those in the Pacific because Atlantic deep water was more recently CO$_2$-poor surface water and hasn't had time to accumulate CO$_2$ from oxidation of organic matter.