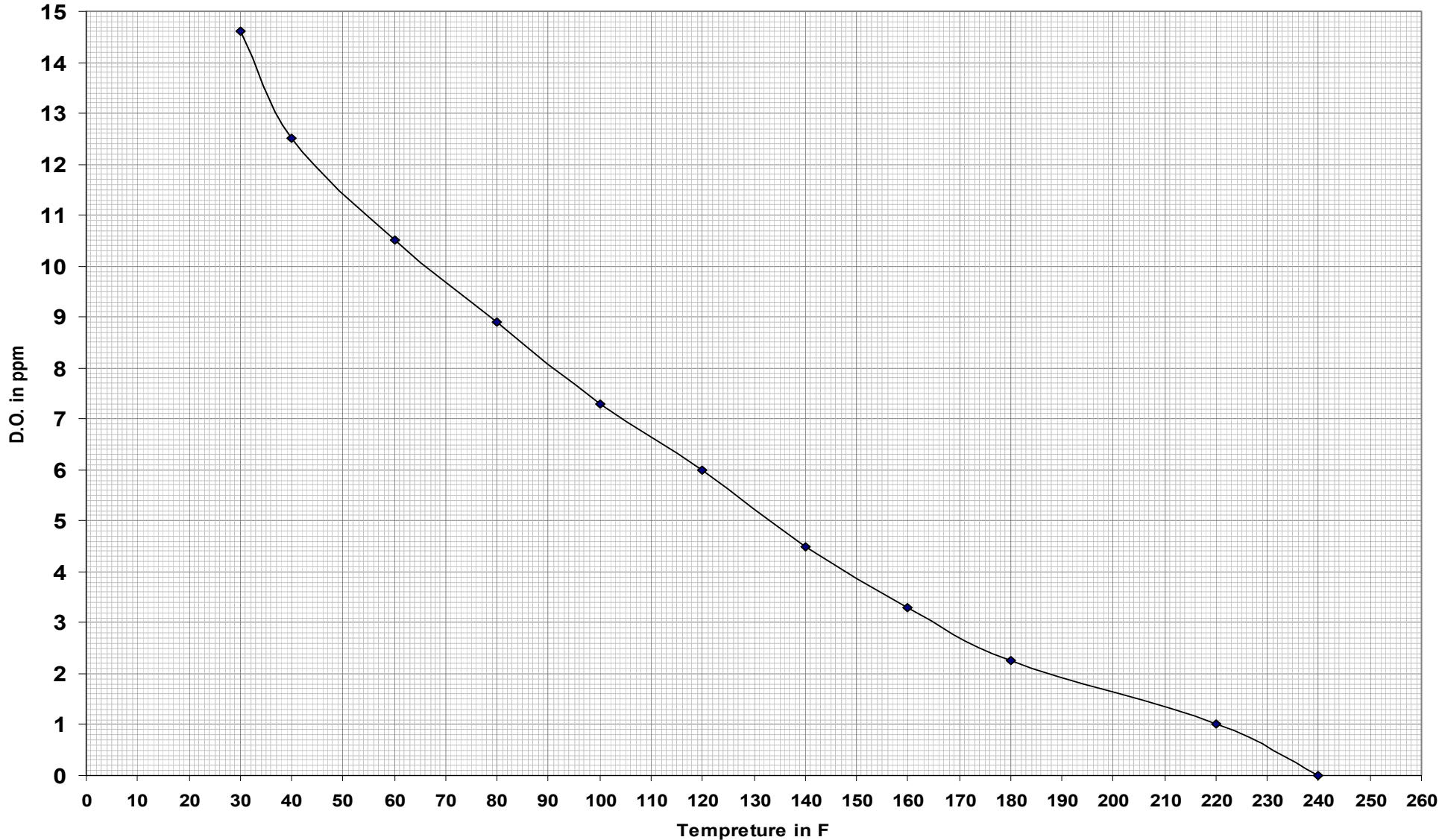


Temp Vs. Dissolve Oxygen Chart





Oxygen and saturation

- If a beaker of sterile freshwater is left to stand at 25°C then the normal maximum amount of oxygen that it can dissolve is 8.2mg/litre. At this point the water sample is said to be SATURATED. If it contained only 4.1mg/l then it would be 50% saturated. A level of dissolved oxygen of 6mg/l as recommended in the OATA "Water Quality Criteria" is equivalent to 73% saturation.



Solubility of Oxygen

- As the table below demonstrates, that as the water temperature rises the amount of oxygen it may dissolve before becoming saturated diminishes. Seawater dissolves less oxygen than freshwater before it becomes saturated. Altitude and atmospheric pressure play a small part in determining oxygen solubility. For practical purposes both may be ignored.

Temp. ° F	Temp. ° C	D.O.
30	-1.1	14.6
40	4.44	12.5
60	15.56	10.5
80	26.67	8.9

Temp. ° F	Temp. ° C	D.O.
100	37.78	7.3
120	48.89	6
140	60	4.5
160	71.11	3.3

Temp. ° F	Temp. ° C	D.O.
180	82.22	2.255
220	104.44	1
240	115.56	0



Temperature conversion:

$$^{\circ}\text{C} = 5 / 9 (^{\circ}\text{F} - 32)$$