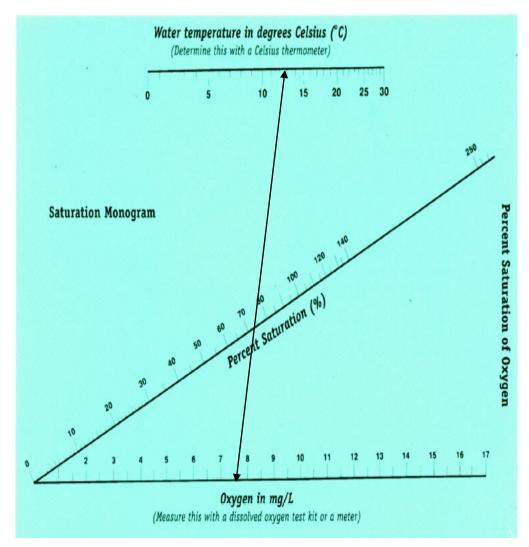
## **Percent Saturation of Dissolved Oxygen**

- 1 Determine water temperature in degrees C and find the value on the temperature scale.
  - F to C conversion: [(F 32) x 5] ÷ 9
- 2 Determine dissolved oxygen (DO) and find the value on the lower scale (Note: you result can be in mg/L or ppm).
- 3 Using a straight edge (ruler, piece of paper etc.) draw a line from the temperature value to the dissolved oxygen value. The point at which the line crosses the middle (saturation scale) is the percent saturation of oxygen.



**Example**: Determine the percent saturations of dissolved oxygen in a stream given the following information: Temperature **13** C; Dissolved oxygen **7.6** mg/L (Answer ~ 72%)

**Solubility**: Amount of DO that distilled water can hold at a given temperature

Temp. (C)	Solubility (mg/L)
0	14.6
1	14.2
1 2 3	13.8
3	13.5
4	13.1
5	12.8
6	12.5
7	12.2
8	11.9
9	11.6
10	11.3
11	11.1
12	10.9
13	10.6
14	10.4
15	10.2
16	10.0
17	9.8
18	9.6
19	9.4
20	9.2
21	9.0
22	8.9
23	8.7
24	8.6
25	8.4
26	8.2
27	8.1
28	7.9
29	7.8
30	7.7

ph and aquatic organisms																	
				ACII	oic		NEU	TRAL		AL	KA	LINE					WV's aquatic
0		1	2	3	4	5	6	7	8	9	1	0 1	1	12	13	14	for pH is 6 - 9
Mayflie	es			Ę	5 - 8	Bro	wn trout				5 -	9	Carp	)			5 - 9
Stonefl				Ę	5 - 8	Bro	ok trout				4 -	8	Catfi	ish			5 - 9
Caddis	flies			4	1 - 8	Yell	ow perch				4 -	8	Bullf	rog			5 - 8
Crayfish 5 - 8 Si					Sma	Smallmouth bass 5 - 8 Wood frog								4 - 8			
Snails, clams and mussels			6	5 - 9	Bluegill, Pumpkinseed etc.					5 -	8	Toad				4 - 8	

6 - 8

Spotted salamander

5 - 8

Information adapted from: Water, Water Everywhere: Water Quality Factors Reference Unit, HACH Inc.

Fathead minnow

5 - 9

Rainbow trout