Dead Zones - Lesson 3: Activity B
Air Supply: Graphing Dissolved Oxygen

Data sheet **(Key – based on station 1190 graph)**

Use your graph to answer these questions:

1. How deep is your station?

   Depth = **21** m

2. What was the maximum and minimum dissolved oxygen level in your water column?

   Max = **7** mg/l

   Min = **1** mg/l

3. Does your station fall within the hypoxic zone (<2 mg/l)?

   Yes

   No

4. Does your station have anoxic conditions (0 mg/l)?

   Yes

   No

5. What is the height (size) of the dead zone at your station in meters?

   Subtract the maximum depth from the minimum depth of the hypoxic zone

   (Max depth) **21 m** – (Min depth) **19 m** = **2 m**

6. What percent of the water column is hypoxic at your station?

   Divide the height the of hypoxic zone by the total depth

   (Height of hypoxic zone) **2** m ÷ (Total depth) **21** m = **0.1** m

   Multiply your answer by 100

   (Answer) **0.1** x 100 = **10** %

7. Describe a property of water in lakes related to dead zones.

   Lakes tend to stratify in the summer. Dead zones may form if bottom water is cut off from new supplies of dissolved oxygen.

8. How can dissolved oxygen levels influence organisms living in a lake?

   Fish and zooplankton need dissolved oxygen to live. Areas without enough dissolved oxygen may not be able to support fish and/or zooplankton.

9. How can human activities affect dead zones?

   Pollution can speed up the depletion of dissolved oxygen in the hypolimnion.