



Water Quality Post Assessment

Temperature

Water quality data was collected from a water source over a six week period and organized into the Data Collection Tables below. Using this data, answer the following questions to the best of your ability. Provide as much detail in each answer as possible.

Data Collection Table

Date	Water Temperature (°C)	Turbidity (mg/L)
4/9/2010	12	5
4/16/2010	13	4
4/23/2010	14	5
4/30/2010	27	16
5/7/2010	14	5
5/14/2010	16	6
5/21/2010	16	5

Provide at least three reasons for the importance of monitoring water temperature with respect to the overall health of a water body.

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The water temperature changed dramatically on 4/30/2010. Do you think the temperature change occurred due to natural causes? Explain your reasoning.

Turbidity

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Turbidity is a measure of the quantity of suspended particles in the water. The higher the turbidity the more particles are present. On April 30th there was an increase in turbidity and water temperature, but the following week, the levels returned to normal. Provide a possible explanation of what took place on April 30th.

Turbidity

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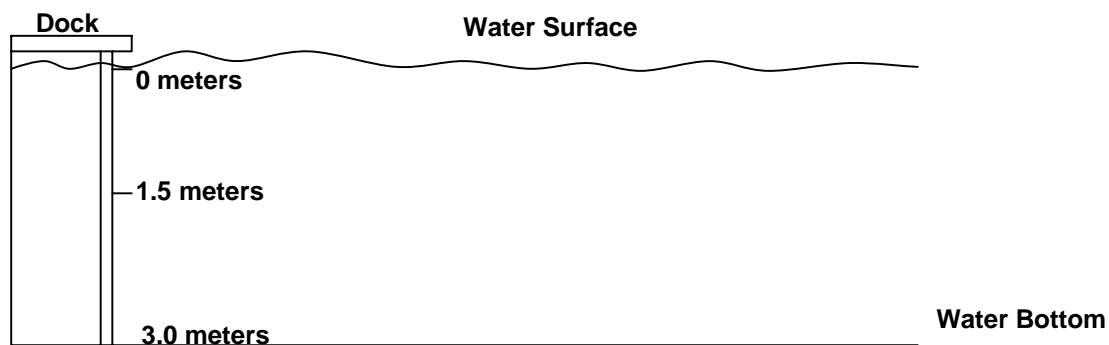
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Explain how an increase in turbidity can increase the water temperature.

Conductivity

Using the illustration and data provided below, answer the questions to the best of your ability. Provide as much detail in each answer as possible.



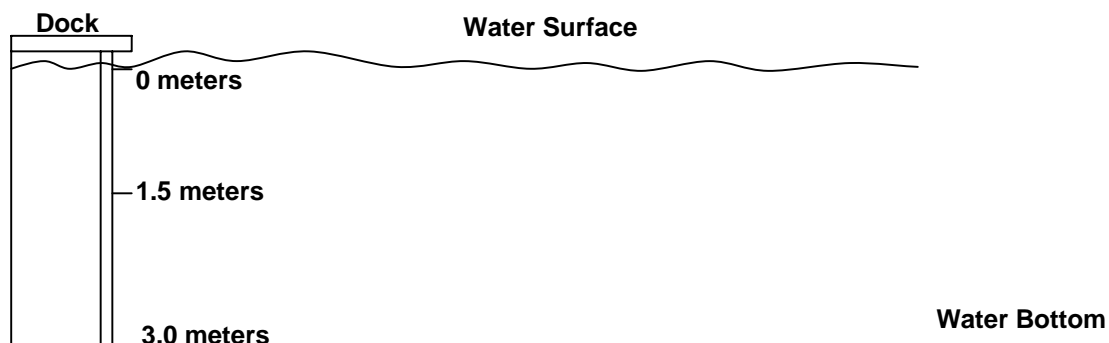
Data

Depth (meters)	Water Temperature (°C)	Conductivity (g/L)	Turbidity (mg/L)
0	18	1	2
1.5	15	6	4
3.0	14	10	6

Based on the data provided above, do you think the water sampling location is a fresh water lake, an ocean front dock, a river connected to a fresh water lake, a river connected to an ocean? Explain your reasoning.

Conductivity

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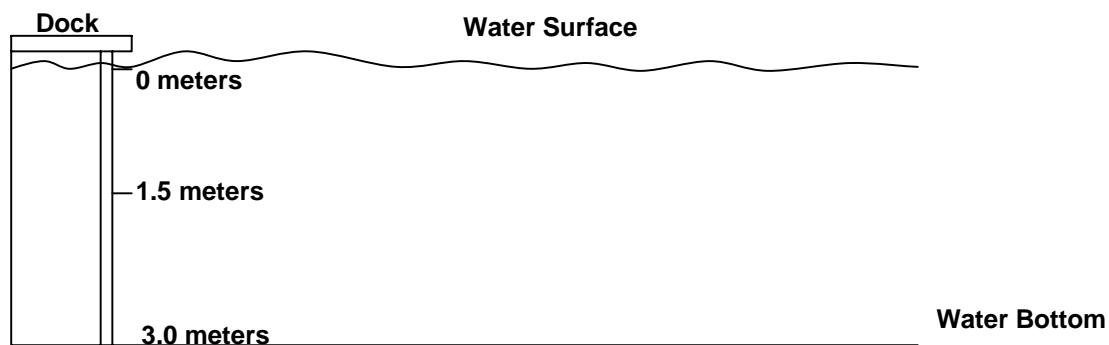
Data

Depth (meters)	Water Temperature (°C)	Conductivity (g/L)	Turbidity (mg/L)
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3.0	14	10	6

Based on the data provided above, explain why water with a higher temperature and low conductivity is found on the surface, while water with a lower temperature and higher conductivity is found at the bottom.

Depth

Using the illustration and data provided below, answer the questions to the best of your ability. Provide as much detail in each answer as possible.



Data

Depth (meters)	Water Temperature (°C)	Conductivity (g/L)	Turbidity (mg/L)
0	18	1	2
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Is there a large pressure difference between a pressure measurement on the surface and one on the bottom? Explain your answer.

Depth

Why is it important to obtain a depth measurement in combination with other measurements such as temperature, conductivity (salinity) and turbidity? Explain your reasoning.

Data Analysis

Using the illustration and data provided below, answer the questions to the best of your ability. Provide as much detail in each answer as possible.

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5/14/2010	16	6
5/21/2010	16	5

Is it scientifically valid to assess the overall health of the water based on the two months of data that was reported in the table? Explain your answer.

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Many dead fish were found in the sampling area in late April/early May. Provide a possible reason for the fish kill.