**Case of the Dead Fish Handout**

You and your fellow classmates have been called upon to act as detectives! Your goal is to solve what killed Mr. Water’s fish and how he can prevent it from happening again. Use the data provided to answer the questions on this sheet and decide what killed Mr. Water’s fish.

|  |
| --- |
| **Why would pH, Total Dissolved Solids, and Dissolved Oxygen be important to fish health?** |
| pH might be important for fish health because if it is too high or low, fish can die or the things they eat could die so fish would starve. Total Dissolved Solids are important because if too much stuff is in the water, the fish could suffocate.Dissolved oxygen is important because without it fish won’t get enough oxygen and will die. |

|  |
| --- |
| **What (if anything) is similar between the datasets?** |
| The pH, total dissolved solids and conductivity don’t change very much. In most datasets, the pond has some plants, bugs and fish. |

|  |
| --- |
| **What (if anything) is different between the datasets?** |
| The dissolved oxygen numbers differed a lot. The temperature changed a lot too and so did the cloud cover. |

|  |
| --- |
| **What data parameter has the most drastic change between datasets?** |
| Between the datasets, Dissolved Oxygen changed the most. |

|  |
| --- |
| **What else may have changed that is not reflected in the water quality data? (Hint: Read the Weather Conditions!)** |
| The temperature of the water might have changed. |

|  |
| --- |
| **Based on the data, what do you think caused the dead fish? Use specific datapoints and other observations from the datasets to support your answer!** |
| I think that the dissolved oxygen levels and temperatures may have caused the fish kills. I think this because the dissolved oxygen levels got really low when the fish died (3 mg/L) but the rest of the parameters didn’t change much. I also think the temperature might be important because it was really cold when the fish died so maybe the fish couldn’t handle the colder temperature. |