Exercise 1: Data Interpretation

Dissolved oxygen is oxygen that is trapped in a fluid, such as water. Since virtually every living organism requires oxygen to survive, it is a necessary component of water systems such as streams, lakes and rivers in order to support aquatic life. The dissolved oxygen is measured in units of ppm—or parts per million. Examine the data in Table 2 showing the amount of dissolved oxygen present and the number of fish observed in the body of water the sample was taken from; finally, answer the questions below.

Table 1: Water Quality vs. Fish Population

Dissolved Oxygen (ppm)	0	2	4	6	8	10	12	14	16	18
Number of Fish Observed	0	1	3	10	12	13	15	10	12	13

Questions

1. What patterns do you observe based on the information in Table 1?

2. Develop a hypothesis relating to the amount of dissolved oxygen measured in the water sample and the number of fish observed in the body of water.

3. What would your experimental approach be to test this hypothesis?

4. What would be the independent and dependent variables?

5. What would be your control?

6. What type of graph would be appropriate for this data set? Why?

7. Graph the data from Table 1: Water Quality vs. Fish Population table (found at the beginning of this experiment).

8. Interpret the data from the graph made in Question 7.