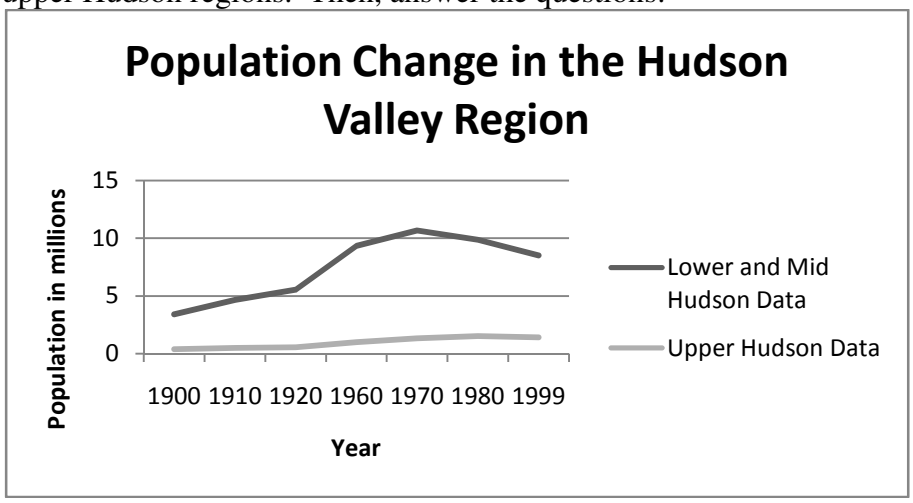
Name _____ Class _____ Date _____

Historic Pollution in the Hudson River

How has pollution changed in the last one hundred years in Hudson River ecosystem? By completing the following graphing activity, you should be able to answer this question to some degree.

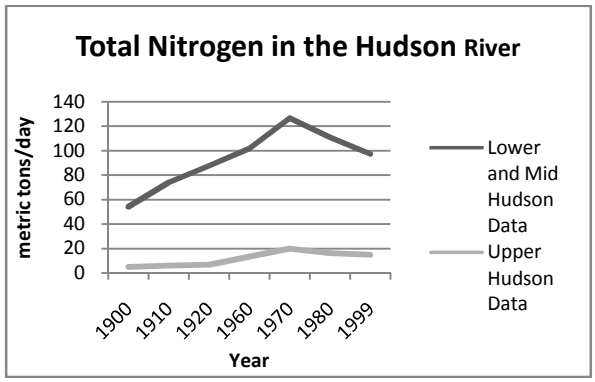
You will be comparing data from the Lower/Mid Hudson region with the Upper Hudson region. For this study, the upper Hudson area was the part of the river that is above the Federal Dam at Troy and continues to the headwaters of the river. The lower and mid Hudson regions include all of the estuarine parts of the river, along with New York City harbor.

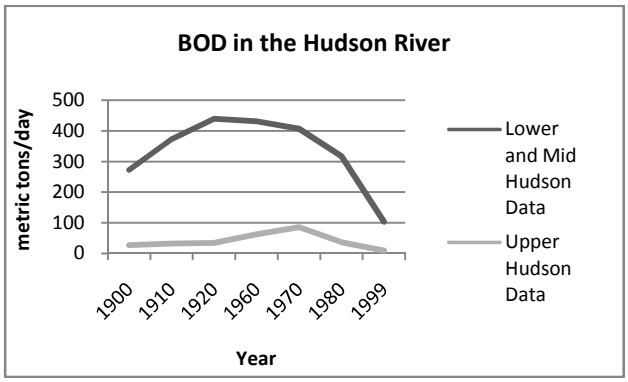
Step 1: Look at the graph, which shows the population over time for both the lower/mid and upper Hudson regions. Then, answer the questions:

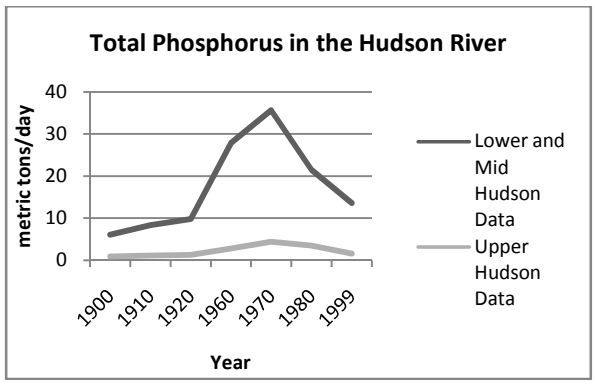


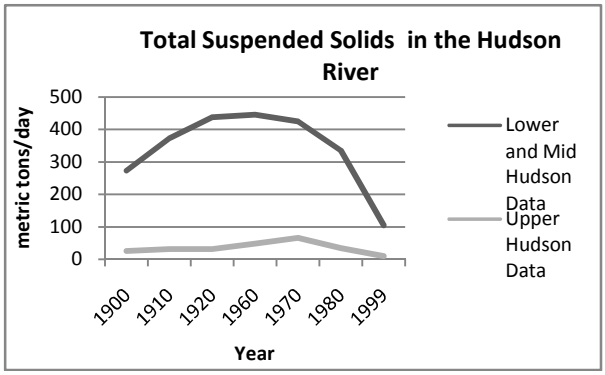
1. What happened to the population of the lower/mid Hudson region during the last 100 years?
2. What happened to the population of the upper Hudson region during the last 100 years?
3. How do you think these changes could have impacted the river?

Step 2: Use the graphs below to help you answer the questions. If you don't remember what the water quality indicators stand for, use the resources section to read about each one. Then, answer the questions.









1. Describe the changes in the four variables over time. Why did things change? Have things improved? Why or why not? Are the changes the same in the upper Hudson area and the lower/mid Hudson area? Why or why not?
2. Which variable (nitrogen, phosphorus, suspended solids, or biological oxygen demand) shows the most dramatic improvement? How did you determine this? What effect do you think these improvements have had on the river? Which variable showed the least improvement? Why?
3. Were you surprised by any of the results? Why or why not?