Oxygen Homeostasis Lab Report (15 pts) Name: _____

1. This lab analyzed how your body works to maintain oxygen homeostasis during and after exercise. Write at least one paragraph explaining how your cells, organs, and body systems work together to maintain enough oxygen in your body during exercise. Here's the starting point: chemoreceptors cells around your body can sense blood oxygen concentration and can send electrical signals to the medulla oblongata, a part of your brain.

You must include the vocabulary terms: red blood cells, blood vessels, heart, lungs, oxygen, circulatory system, musculoskeletal system, respiratory system, heart rate, breathing rate.

2. **Analyze the class data set**. First, you need to take the “raw data” (the whole class data table) and do something with it to make the numbers easier to interpret. This could mean taking averages, finding the difference between two values, and/or manipulating the numbers to find a new value. Create a new data table below that shows the results of your data analysis. Include a few sentences explaining what you did to the numbers to make them easier to interpret.

3. **Represent the final data set.** Now that you have your “final numbers” they should be put into some sort of representative chart or graph. Use the space below to create the chart of graph that works best for your final numbers. Consider these options: line graph, scatter plot, bar graph, or pie chart. Make sure that you are only plotting the final numbers that you ended up with in step 2. The raw class data would not be appropriate to plot on this graph.

4. **Write your conclusion**.

In the space below, write your lab conclusion using the following guidelines:

1. Restate the research question.
2. Restate your hypothesis.
3. Briefly describe the method (paraphrase the class procedure and simplify it to a couple sentences).
4. **Summarize** the data collected, meaning talk about the overall trend in the data. Provide some data points in your summary.
5. Decide if your hypothesis was supported or rejected and explain why.
6. Describe errors or limitations of the method in terms of its reliability and validity in producing accurate data. Discuss how those could be avoided the next time this lab is done.