



4th Graders Write Their First Lab Report

Patricia A. Halpin, Ph.D.

University of New Hampshire Manchester
Biological Sciences Department, Manchester NH



PhUn Hands-on Activities

Day 1- Physiologist Visit

Introduction

- Discussion topics: what is a physiologist, education and careers, how the cardiovascular and respiratory systems work together, and the scientific method.
- A hypothesis for their experiment was created.
- **Hypothesis:** Heart rate and respiration rate increases with exercise.
- The students measured their resting heart rate and respiration rate.
- All information was recorded on the lab report sheets.

Day 2- Physiologist Visit

The experiment and data analysis

- The class worked in pairs, one exercised for five minutes while the other cheered them on
- At the end of exercise, the exercising student took their own heart rate while their partner measured their respiration rate. They then switched roles.
- They graphed their class data, individually.
- The histograms were projected to the class.
- Results were discussed as a group. The students determined their hypothesis was proven.
- Lab reports were passed in for a grade.



Figure 1 Very happy students after a PhUn week.



Figure 4 Each student sent a thank you note. This one included a picture of them creating their histograms after the completion of their experiment.

Name _____	Date _____
Science Investigation	
Journaling Notes	
1. Question:	

2. What we already know:	

3. Hypothesis:	

4. Materials needed:	

5. Procedure:	

6. Observations/New information:	

7. Conclusion:	

Figure 2 A copy of the lab report sheets the students completed. The first day, # 1-5 were completed. The second day, #6 and 7 were completed along with the four histograms.

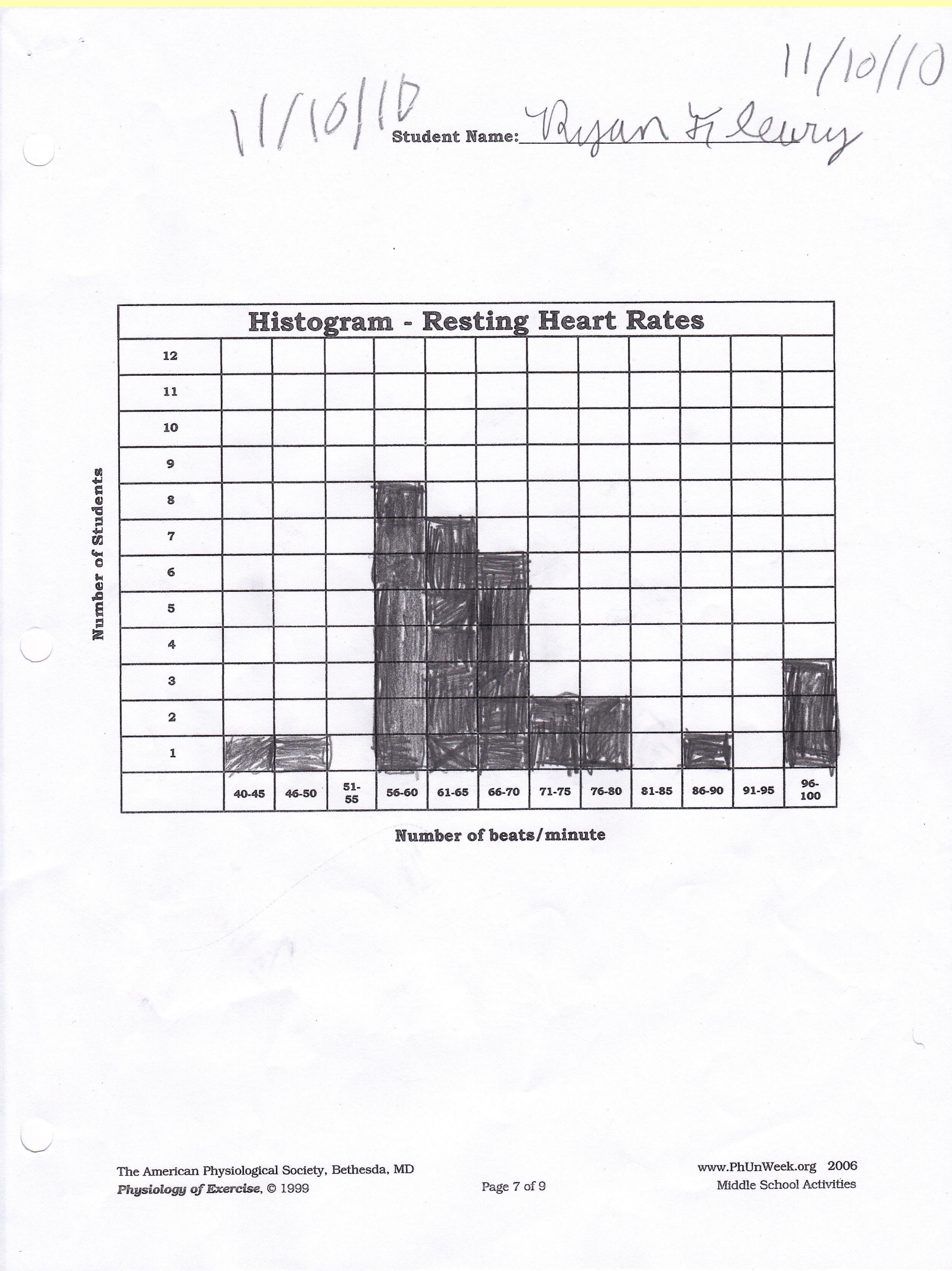


Figure 3 An example of class data represented in a histogram. Students created 4 histograms : Resting heart rate, Resting respiration rate, Heart rate after exercise and Respiration rate after exercise



Figure 5 Don't forget to submit an article and a picture to your local paper. The students love seeing their pictures in the paper. This was also posted outside the school office.