

## 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.

# 4<sup>th</sup> Graders Write Their First Lab Report

## Patricia A. Halpin, Ph.D.

University of New Hampshire Manchester **Biological Sciences Department, Manchester NH** 



#### Figure 1 Very happy students after a PhUn week.

Name	Dat
Science Investigation	
Journaling Notes	
1. Question:	
2. What we already know:	
3. Hypothesis:	
а Т	
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.

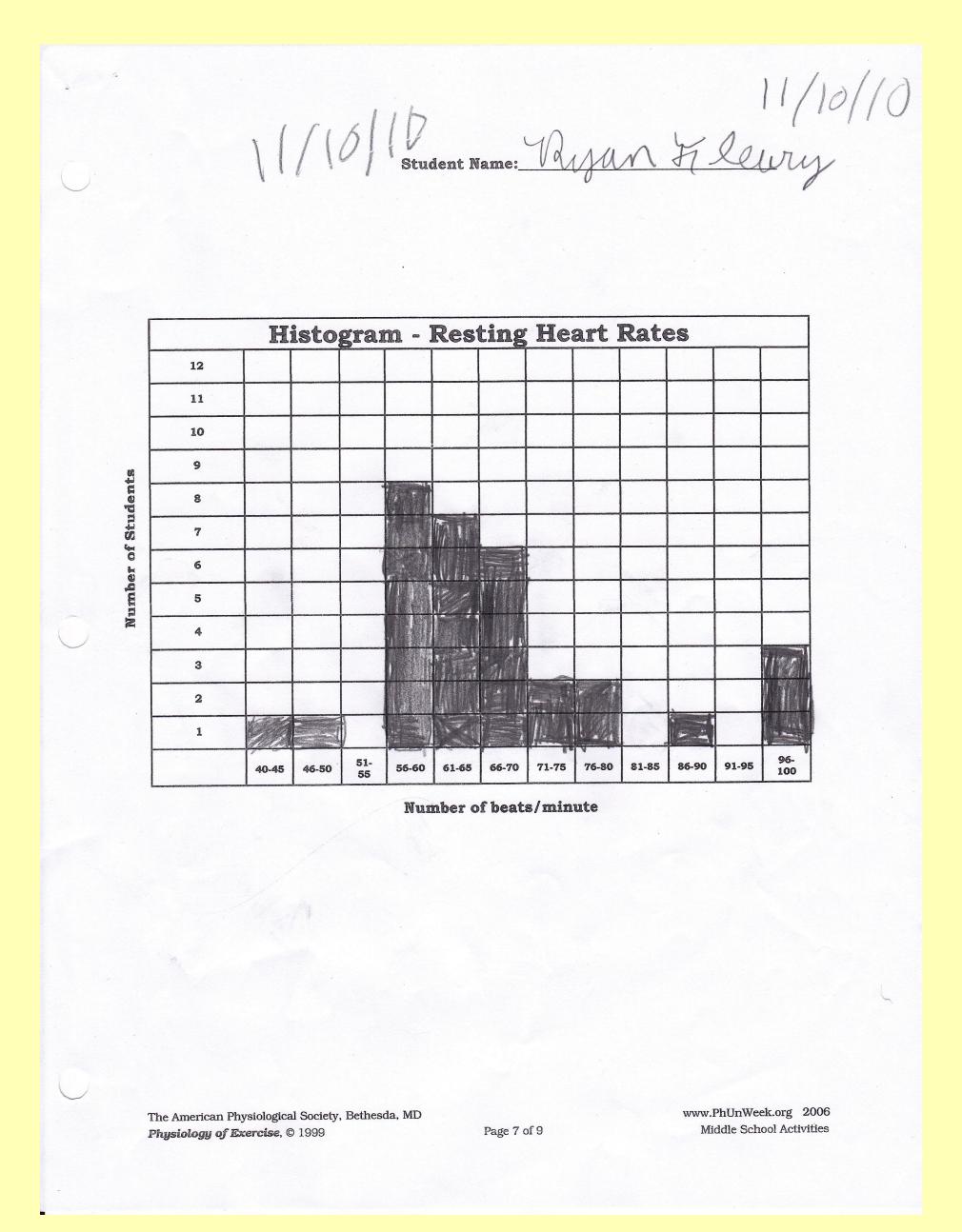
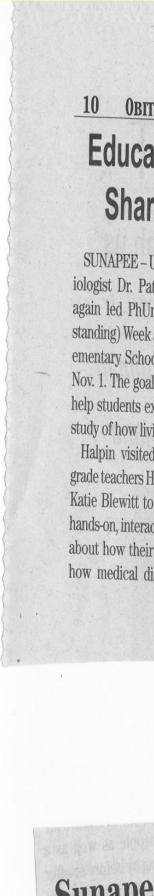


Figure 3 An example of class data represented in a histogram. Students created 4 histograms : Resting heart rate, Resting respiration rate, Heart rate after exercise and Respiration rate after exercise



experiment.



Sunapee PhUn (Continued from Page 10)

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.



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

10 OBITUARIES/LOCAL NEWS **Educators, Students and Scientists** Share the "PhUn" in Physiology

SUNAPEE – UNH Manchester phys- PhUn Week 2010 focused on the physalpin once iology of exercise. Students learned ain led PhUn (Physiology Under- about the cardiovascular and respirhe week of hearts and respiration as they exe ov. 1. The goal of the project was to cised. After performing an experiment elp students explore physiology, the on the effects of exercise on heart study of how living things work. and respiration rate, the students ana-Katie Blewitt to lead the students in and complete their first lab report.

avities to learn PhUn Week is the annual K-12 outabout how their bodies function and reach program coordinated by Th how medical discoveries are made. (Continued on Page 11)

