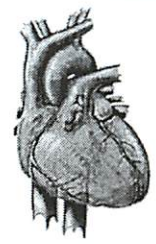


Name _____ Date Thurs 11/3/11 Science Period _____

gw



Heart Rate Lab



State The Problem: How do different activities affect heart rate?

Gather Information: (Include increases and decreases) _____

Resting Heart Rate: _____ bpm (beats per minute)

1. Place your index and middle fingers to the left or right of your windpipe to find your pulse.
2. Find the resting heart rate by counting the number of beats in six seconds then multiply that number by 10. (This gives you the number of beats per minute.)

hypothesis: (no personal pronouns) _____

Experiment:

1. For each activity listed in the chart, perform that activity for 30 seconds, measure the heart rate, then rest for one minute.
2. Record the data in the chart in the results section.

Variables:

Manipulated/Independent- _____

Responding/Dependent- _____

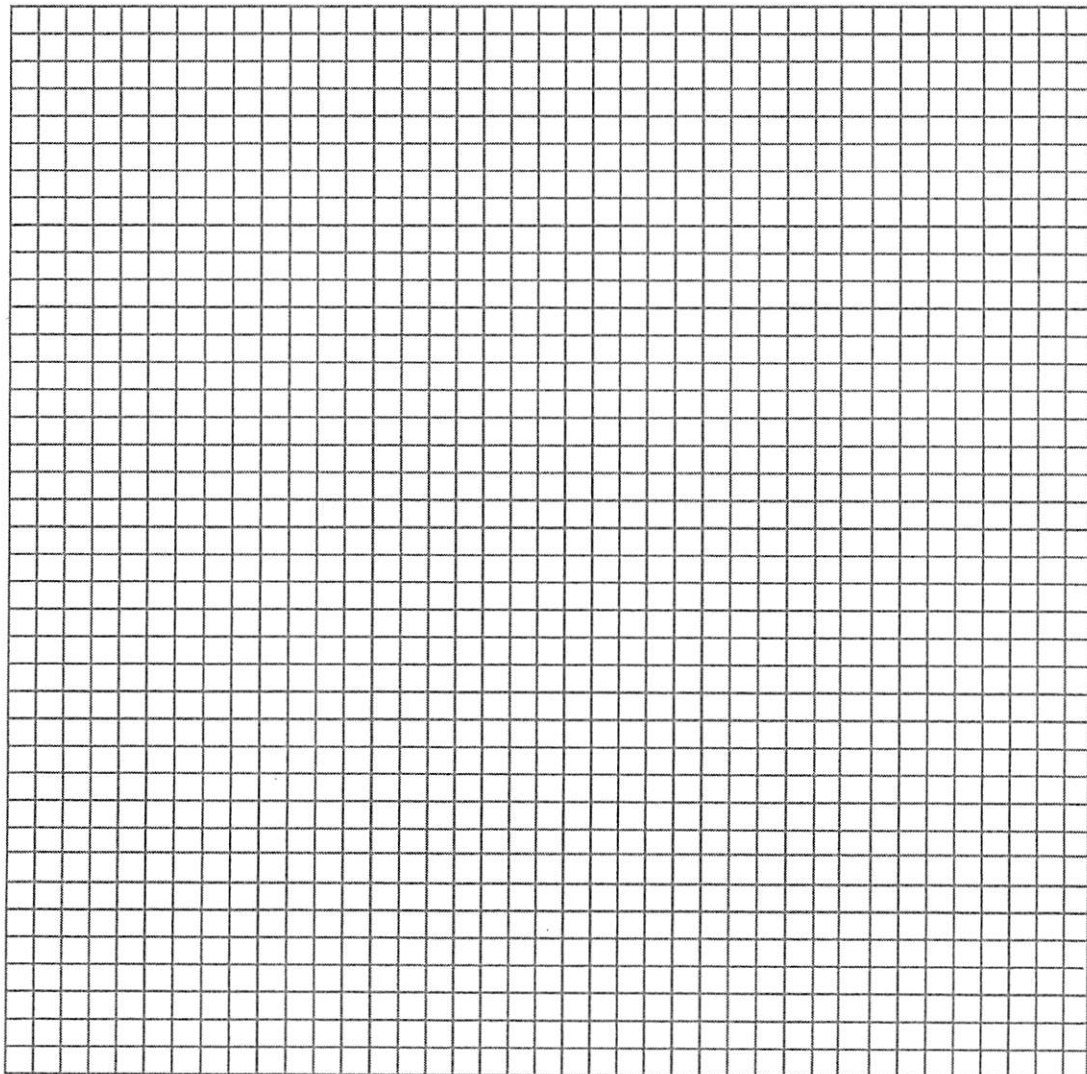
List 3 Constants-

- a. _____
- b. _____
- c. _____

Results:

ACTIVITY	HEART RATE (include units)
Rest	
Walk	
Jog	
Sprint	
Jumping Jacks	
Tae-Bo	
Skipping	

Take the data from the table and create a _____ graph. Use the graphing notes from the scientific method unit to make sure all requirements are met.



Conclusion: All questions should be written using complete sentences. Remember, no pronouns and restate part of the question in the answers.

1. What is the effect of the different activities on heart rate? (Do you notice a pattern/trend?) _____

2. Which activity caused the heart rate to increase the most? _____

3. Why might that activity have caused the greatest increase in heart rate? _____

4. In order for individuals to participate in all of the activities, where did the energy for movement come from? How did the energy make it to all of the cells of the body? (Hint: Think of **two** particular body systems and **describe how** each helps to get the energy to the cells.)

5. Along with heart rate, respiration rate (the number of times you breathe every minute) also changed. Why did this change occur? (Hint: Think cellular respiration.)

6. Look back at the original hypothesis. Was it proven or disproven and support the answer with specific results/data.

7. What was the control group? (Hint: Which situation did not include the manipulated/independent variable; set up for comparison.)