

Heart Lab

This fun interactive lab will require you to answer some fundamental questions about how different activities affect your heart rate. Remember that your heart beats, so that blood can travel throughout your body, carrying necessary oxygen and nutrients to all of your cells, when you make your hypotheses, keep this information in mind!

Instructions:

- * Pick 3 different activities to do:
 - *Pick one that you think will increase your heart rate
 - *Pick a second one that you think will decrease your heart rate
 - * Pick a third one that you think will keep your heart rate the same.
- * Fill out the question
 - * The question should read “How does _____, _____, and _____ affect your heartrate? (the blanks should be the activities you are going to do.)
- * Fill out the three separate hypotheses for three different activities
 - * The hypothesis should include what activity you will do, for how long, and whether your heart rate will increase, decrease or stay the same because of it.
- * Fill out the experiment for each activity:
 - * It should include what you will do, what materials are needed and the duration of the activity.
 - *Take data from at least 4 people including you.
 - * Average that data
- *Organize your Data into a table from all three experiments.
 - *X-axis should be the activity and the y-axis should be your heart rate.
 - *Fill in the sentences stating how much your heart rate increased or decreased according to your data with each activity.
- * Conclusion:
 - * Fill in the conclusion answering your original question for each experiment. No detail required, just whether your heart rate increased, decreased or stayed the same.

Heart Lab Write-up

Question:

_____?

Hypothesis:

- 1) When we _____ for _____ minutes our heart rate will _____.
- 2) When we _____ for _____ minutes our heart rate will _____.
- 3) _____

Experiment:

- 1) For our first experiment we will use _____ and _____ for _____ minutes straight. We will take our heart rate before, during and after the experiment by counting our pulse for 30 seconds and then doubling it to get beats per minute.

Names	Before (beats per min)	During (beats per min)	After (beats per min)	Heart Beats Change (After- before=___)
AVERAGE	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	

- 2) For our second experiment we will use _____ and _____ for _____ minutes straight. We will take our heart rate before, during

and after the experiment by counting our pulse for 30 seconds and then doubling it to get beats per minute.

Names	Before (beats per min)	During (beats per min)	After (beats per min)	Heart Beats Change (After- before=___)
AVERAGE	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	

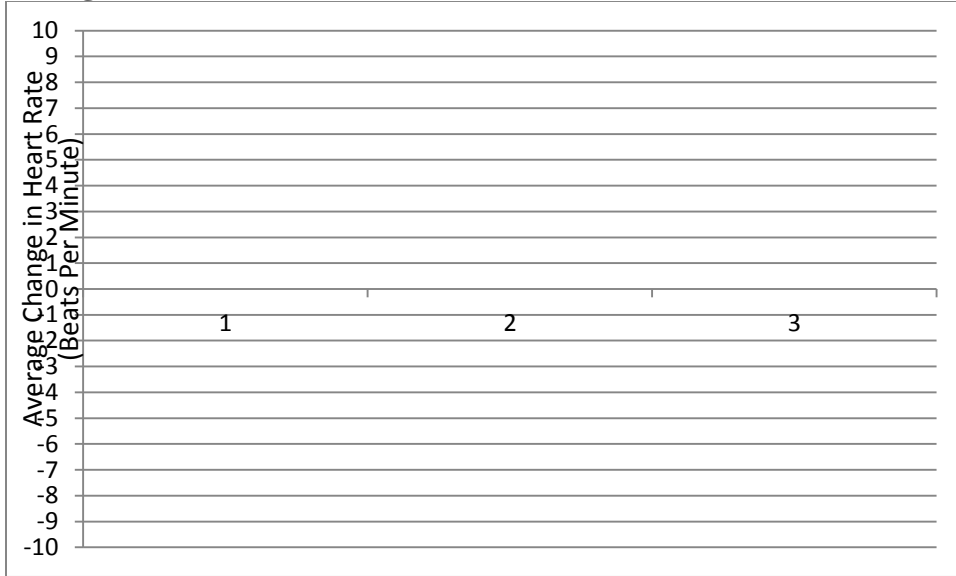
3) _____

Data:

After the tests we found the following:

(make sure you label the numbers with the stimulus used.)

Changes in Heart Rate with Different Stimuli



1) After

_____ for _____ minutes our heart rates _____ an average of _____ beats per minute.

2) After

_____ for _____ minutes our heart rates _____ an average of _____ beats per minute.

3) _____

_____.

Conclusion:

The data shows:

1) When a person _____ their heart rate will

_____.

2) When a person _____ their heart rate will

_____.

3) _____

_____.