Heart Rate Lab

Goal: Test the effects of a stimulus on the heart.

Research: [http://www.heart.org/HEARTORG/Conditions/More/MyHeartandStrokeNews/All-About-Heart-Rate-Pulse\_UCM\_438850\_Article.jsp#.VwTtMdIrLcs](http://www.heart.org/HEARTORG/Conditions/More/MyHeartandStrokeNews/All-About-Heart-Rate-Pulse_UCM_438850_Article.jsp%23.VwTtMdIrLcs)

Supplies: Student Choice; One stimulus to speed up heart rate and one stimulus that slows down heart rate.

Set Up: (written steps and labeled photo of lab set up)

Data Table/Graph: (label dependent and independent variables on graphs) Must have data in at least two of the following forms: bar graphs, line graphs, stem and leaf plots, circle graphs, histograms, box and whisker plots, scatter plots, cumulative frequency (ogive) graphs.

Analysis of Lab Results: (apply meaning or hypothesized meaning to data; why did you get the data)

Final Analysis/Thoughts: (student opinion)

Probing Questions/Extend:

1. Analyze the importance of heart rate maintenance.
2. How can a doctor calculate heart rate?
3. Define resting heart rate.
4. Evaluate the effects of a Beta Blocker on the heart.
5. Analyze the relationship between blood pressure and heart rate.
6. How can you tell if someone has a racing heart rate and what can you do to help? Use your data ☺
7. Draw and label blood flow through an anatomically correct heart. Be sure to include Aorta, pulmonary arteries, pulmonary veins, right atrium, left atrium, right ventricle, left ventricle, tricuspid valve, mitral valve, superior vena cava, inferior vena cava and function of each

Rubric

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| Topic | Pts Available | Pts Earned |
| Goals | 2 |  |
| Supplies | 2 |  |
| Set Up | 2 |  |
| Data table/ graph | 5 |  |
| Data Analysis | 5 |  |
| Final Thoughts | 5 |  |
| Probing ? | 10 |  |
| Total | 31 |  |