

GLOBAL HEARTBEAT LAB ANALYSIS

Use a separate sheet of paper to answer these questions.

1. What was the experimental treatment that you chose? How did you prepare the experimental treatment and what was the intensity (e.g., concentration, speed, temperature) that you used? Be specific.
2. What did you expect would happen during the experimental treatment? (What was your hypothesis?)
3. Did you change any of the procedures or methods from those described in the lab handout? If so, how and why?
4. Describe the average heart rate of each group of crabs (“lab cove” and “mudflats”) during the control treatment period. Include graphs and point out any discrepancies or changes between individual crabs in this paragraph and on the graph. Why was it important to include a control treatment in your experiment?
5. Describe the average heart rate of each group of crabs during the experimental period. Include graphs and point out any discrepancies or changes between individual crabs.
6. Compare the average heart rates of lab cove crabs – was there a difference between the control and experimental treatments? Describe these differences in detail. Now do the same for mudflat crabs.
7. If the heart rate was not different between the control and experimental treatments, discuss why this might happen.
8. Compare the heart rate responses **between** the lab cove and mudflat crabs during the experimental treatment. Did one group show a greater (or lesser) response to the experimental treatment than the other? Discuss some possible explanations for any differences (or similarities) between the two groups (think about their home environment, observed activity level, or anything that occurred during the experiment itself).
9. As a group, prepare a 15 minute presentation to show the results of your experiment to the rest of the campers.