Homeostasis Fish Lab Hypothesis and Data

Instructions: Read your procedures to your partner and answer the following questions before you begin your experiment.

1. What is the independent variable in this lab? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is the dependent variable in this lab? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Using that information, create a hypothesis (prediction) for what will happen when you change the temperature of the water.

*I predict that if \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,*

*(independent variable)*

*then\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*(dependent variable)*

*because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

*(use what you know about fish and homeostasis to make a prediction)*

Data table to record information DURING the experiment.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Trial One | Trial Two | Trial Three | Average beats/min. |
| Starting Temp. = \_\_\_\_\_\_\_\_\_*(record your temp above)* |  |  |  |  |
| Temperature +5°C= \_\_\_\_\_\_\_\_*(record your temp above)* |  |  |  |  |
| Temp= 0°C |  |  |  |  |

Data Table:

To graph your data using Sheets and a LINE GRAPH, you need to reorganize your data from above into columns of independent variable (column A) and dependent variables (column B). Use Sheets to input the following data.

|  |  |  |
| --- | --- | --- |
| ***Don’t graph this column***  | *(Column A)*Temperature oC | *(Column B)*Operculum beats per minute |
| Highest temperature |  |  |
| Starting temperature |  |  |
| Lowest temperature |  |  |

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*(independent variable)*

*then\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*(dependent variable)*

*because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

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