

ESA 21: Environmental Science Activities

Activity Sheet
Experimental Analysis

Name:

Professor:

Experiment 1:

Table 1-1: The Effects of Temperature on the Average Weight of Fish

Temperature	Average Weight of Fish after Six Weeks			
	Trial 1	Trial 2	Trial 3	Mean (Average)
5° C				
10° C				
15° C				
20° C				
25° C				
30° C				
35° C				
40° C				

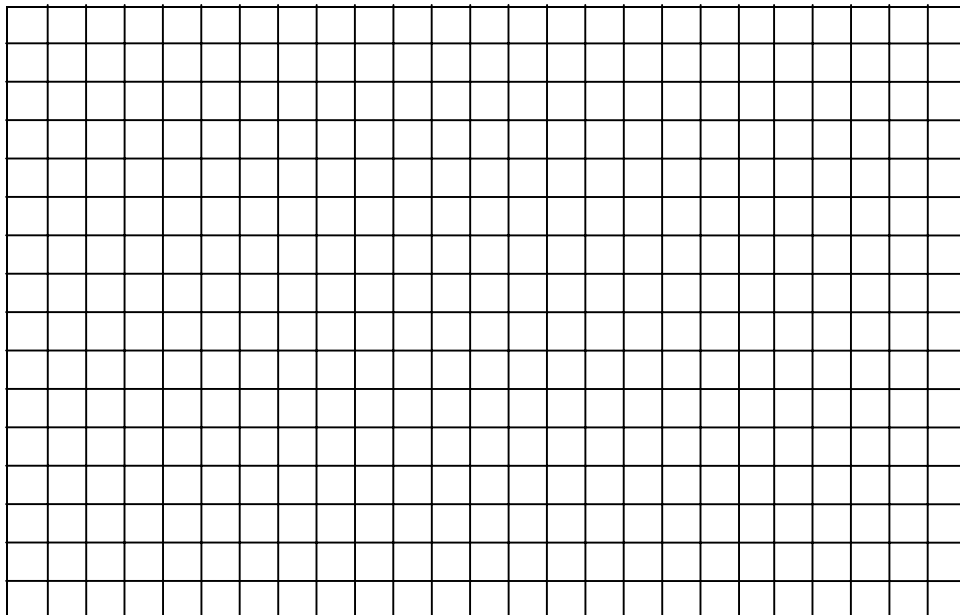
Answer these questions for the first experiment examining the relationship between the temperature of the water and the final weight of the fish.

1. What is the independent variable for this experiment?
2. What is the dependent variable for this experiment?
3. List at least four controlled variables for this experiment

4. Using the data you collected for your experiment, complete the graph below for this experiment.

Graph 1-1 The Effects of Temperature on Average Weight of Fish

Average
Weight
of Fish
(grams)



T
Temperature in °C

Experiment 2:

In the second part of the laboratory, you designed your own test of the hypothesis: **Environmental conditions affect fish growth**. All of the questions on this sheet refer to the experiment you designed.

5. What was your prediction?

6. What is the independent variable for your experiment?

7. What is the dependent variable for your experiment?

8. List at least four controlled variables for your experiment

9. Using the data you collected for your experiment, complete the table and graph on the other side of this paper, then write an analysis of your data here.

Table 1-2

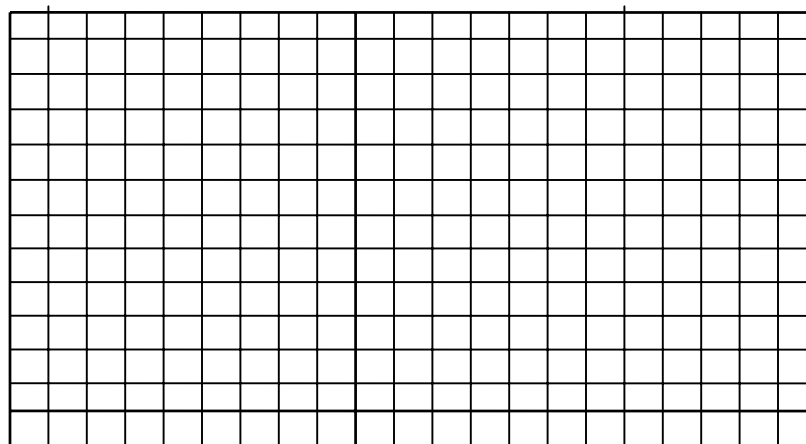
TITLE: _____

Independent Variable is: _____	Average Weight of Fish after Six Weeks			
	Trial 1	Trial 2	Trial 3	Mean (Average)

Graph 1-2

Title: _____

Y-Axis Label:



Label x-axis: _____