



STREAM SCIENCE

LEARNING LOG 4

SUMMARY DATA SHEET-1

NAME: _____ **DATE:** _____ **HUI NUMBER:** _____

Hypothesis – Restate your hypothesis. Was it supported? Explain.

Method – Describe the method your *hui* used to collect your data and the variables that you needed to control.

Your Hui Data for _____ (Stream characteristic)

	Urban Site 	Forest Site 
Site 1		
Site 2		
Site 3		
Range		
Mode		
Median		
Mean		

Conclusion – On the back of this page, write a conclusion from the data you collected. What can you conclude by looking at the range within your group’s data? What can you conclude from the mean?



STREAM SCIENCE

LEARNING LOG 5

SUMMARY DATA SHEET-2

NAME: _____ DATE: _____ HUI NUMBER: _____

Listen to the presentation of data from each *Hui* and record the range and mean for the different habitat characteristics.

Habitat Characteristics	Urban Stream	Forest Stream
<i>Hui</i> 1: Percent shade cover		
<i>Hui</i> 2: Water temperature		
<i>Hui</i> 3: Dissolved oxygen		
<i>Hui</i> 4: Turbidity		
<i>Hui</i> 5: Velocity of streamflow		
Invertebrates - Summary		
Stream life Diversity		
Number of Invertebrate species		
Number of Native species		
Number of Non-native species		
Stream life Abundance		
Number of Invertebrate individuals		
Number of Native individuals		
Number of Non-native individuals		

Challenge: Look for relationships in the data and record your answers to the following questions:

1. How is shade related to temperature?



2. How is temperature related to dissolved oxygen?



3. Under which conditions is stream life most abundant? Why do you think this is true?

4. Under which conditions is stream life most diverse? Why do you think this is true?

5. Revisit your predictions on Learning Log 3 from the previous lesson. Which predictions were supported? Which predictions were not supported?

6. Which findings were most surprising? Why?



HELP USING EXCEL

- Go to "start" in the lower left corner of the computer screen – click on "programs", Microsoft Excel (If you don't see it, click on Microsoft Office first). Open the program.

- The program will open a new "book" automatically – it looks like this:

	A	B	C	D
1				
2				
3				
4				

- Enter your column headings in the top row. See the example below:

- If heading needs more room, expand the column by clicking at the end of the column, waiting until the cursor looks like an (I) and dragging the line to the left until the column is the width you want.

	A	B	C	D	E
1	Forest Stream	Urban Stream			
2					
3					
4					

- Enter your data for each of the three sampling sites at each stream in the correct columns and save your finished book or "spreadsheet."

- You can add more data later if you collect it.

- From this table, you can create a graph. Select or highlight your table.

Click on "Insert" and select "Chart." Then select the type of graph you want to create. Alternatively, click on the mini bar graph icon at the top of the page, the "Chart Wizard," and select the type of graph.

- Try different types of charts. The most common types are bar charts, line charts, and pie charts just as one sees them in magazines, newspapers, and on the Internet.
- Choose the chart/graph type that best shows the basic relationships in your data and the idea(s) that you may wish to emphasize. For example, line graphs can



- show growth or shrinkage over time. Bar graphs are good for comparing amounts. Pie charts can show relative size or contribution at a specific time.
- c. Select "Next" and follow the directions to label the "x" and "y" axes on your graph and give the graph a name. For example, graph name: Percent Shade Cover; "x" axis: Sampling Sites, and "y" axis: Percent Shade.

(Adapted from file provided courtesy of Sandra Webb, Mililani High School)