

Unit A - Aggressive Behavior of Siamese Fighting Fish Lab (*Betta splendens*)

Purpose: I can complete a laboratory investigation involving Bettas.

Background: In this laboratory investigation Bettas are tested to discover their aggressiveness.

SS = _____

CT =(CT contains SS!) _____

MV= _____

ET = _____

RV = _____

(ET Contains SS & MV)

CV1 = _____

UCV1 = _____

CV2 = _____

UCV2 = _____

Question: How will ... (verb?)... *Manipulated Variable* *Study Subject*.. (either order) affect the *Responding Variable* ?

Prediction/Hypothesis IF (ss/mv) _____

Then (et-predict) _____

Compared to (ct) _____

Because (ss,mv,rv & why) _____

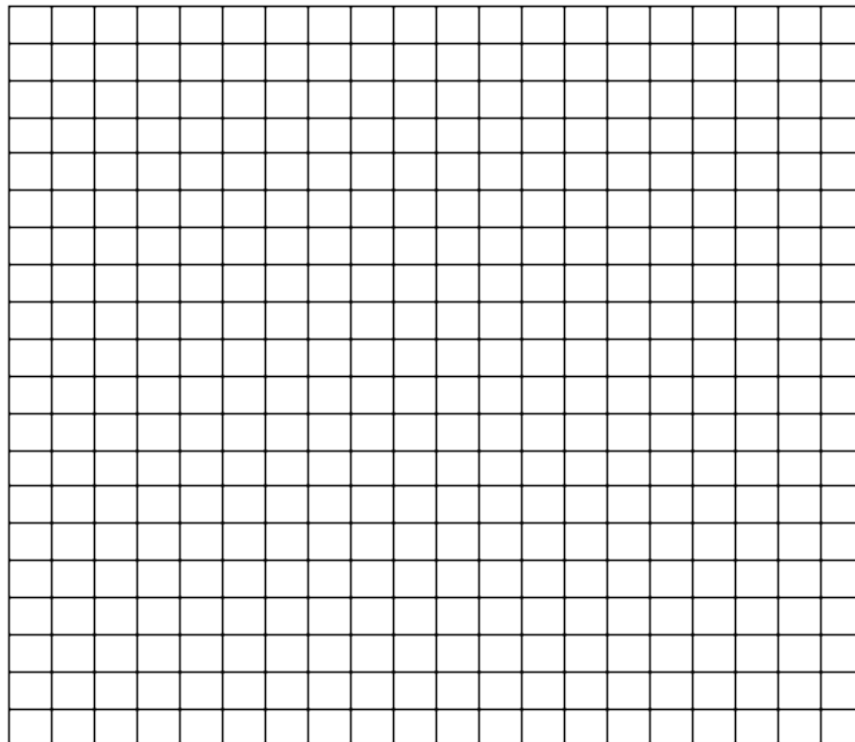
Therefore _____

Data Analysis: Use the data from your Data Table to create Bar Graph 1 below.

- a. Use two spaces for each behavior bar, with one between the next.
- b. Neatly Graph the frequency of each behavior on the graph below.

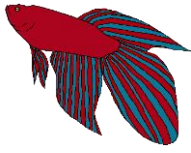
Bar Graph One - Aggressive Behavior of Bettas*

Number
of
Occurrences



Behavior Type C-Avoid C-Display C-Attack E-Avoid E-Display E-Attack

Analysis: Answer these questions in CQC sentences. Attach a separate sheet of paper as needed



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1. Show the total of each aggressive behavior in both trials as a three number ratio for your Betta.

	Avoid :	Display :	Attack
Control Trial	_____ :	_____ :	_____
Experimental Trial	_____ :	_____ :	_____

2. Based upon your data, did your fish show more aggressive behaviors in the Control Trial, in the Experimental trial or are the same in each? Use data as evidence in your response.

3. Based upon your Experimental data, did your fish show more aggressive behaviors compared to the rest of the fish? Tell the high / lows in your response.

Conclusion

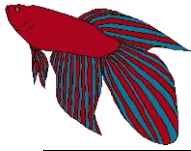
4. Was your hypothesis accepted or rejected? (circle) a. Accepted b. Rejected

5. Explain why the hypothesis was accepted or rejected. Use data as evidence.

(Challenge or EC Regular) In the wild animals that are hurt are easy prey for predators.

6. Which aggressive behavior(s) might be most important for Betta survival? Tell Why.

7. Which aggressive behavior(s) might be the worst to use if a Betta was to survive? Tell Why.



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(Betta splendens)

Data Table 1 - Aggressive Behavior of Betta Lab							
Control Trial	Avoid	Display	Attack	Exp. Trial	Avoid	Display	Attack
0:20				0:20			
0:40				0:40			
1:00				1:00			
0:20				0:20			
0:40				0:40			
2:00				2:00			
0:20				0:20			
0:40				0:40			
3:00				3:00			
0:20				0:20			
0:40				0:40			
4:00				4:00			
0:20				0:20			
0:40				0:40			
5:00				5:00			
0:20				0:20			
0:40				0:40			
6:00				6:00			
Totals							

Observer(s) -
 Recorder -

Timekeeper -