Name:	Period:
DUE DATE:	

## 7<sup>th</sup> Grade Science PBA BATTLE OF THE BEAKS

Lab & Rubric

Teacher: Title of Work: Name: Date:

	Points			/15						/10		/10	02/	/ 50			121	1			/25	ì			
			Exceeds	Independent Variable is the variable that I, the scientist, is changing in the experiment.	The Dependent Variable is measureable and dependent	on the independent variable.	The hypothesis is correctly	formatted including an	II/ then statement.	45-48 data points		30-32 data points	Color coded accurately with	correct scale and sixteen bar	graphs.	-	Answers use supportive	evidence with collected data	and are specific, thorough	and accurate.	All six terms are explained in	detail and examples used	contain supportive evidence	with collected data.	
		Month	ואופפרט	Independent, Dependent Variables and the Hypothesis are correct	with only one error.	,			22.00	38-44	data pojnts	25-29 data points	Color coded accurately,	with correct scale and	sixteen bar graphs, with 1-	· 3 errors.	Answers use supportive	evidence and are	somewhat thorough and	accurate.	At least five terms are	explained in detail and	examples used contain	some supportive evidence	with collected data.
1100	crieria	Approaching	Independent Description	Variables and the Hypothesis are correct with two errors.				i	25-37 data nointe		20.24 data nainta	Calaria politica	color coded accurately, with	correct scale and sixteen bar	graphs, with 4-6 errors.		Answers use little data and	are somewhat thorough and	accurate.		At least four terms are	explained in detail and	examples used contain some	supportive evidence with	מוברוכת תפופי
		Below Standard	Independent, Dependent	Variables and the Hypothesis are correct with three errors.		-			24 or fewer data points		19 or fewer data points	Color coded accurately with	correct could and air-to-	graphe with 7 or more	graphis, with 7 of more errors.	Λ	Answers use no data and are not	ulolough or accurate.		At Const that	At least three terms are	explained in detail and examples	Used contain little supportive	evidence with collected data.	nts:
			Hypothesis/	Variables		-	•		Data Chart		Analysis Chart	Bar Graph				Analysis	Ouestions	circincary	,	Analysis Essay	אוומולטוס רססמל		-		Teacher Comments:

	PBA: I	BATTLE OF THE BEAKS		
Name			Period	
Group Members				
individuals have. One year Unlike their normal, diver	er, several groups of woolyboogers are	blown off their normal migrati	shows a wide variation in the types of beaks the on path by a big storm, and land on several islend animals. This lab will investigate the efformal animals.	ands.
<u>HYPOTHESIS</u>				
Independent variable (5)				
Dependent variable (5)				
PROCEDURE  1 pie pan 1 spoor 20 rubber bands	n l clothespin 20 beans 20 paperclips	1 tweezers 4 plastic cups	1 toothpick 20 mini marshmallows	
Place the rubber bands, table. Each table will repre- pie pan.	marshmallows, paperclips and beans (for second a different island with a different t	ood) each in its own pie pan (er ype of food available. Place th	vironment). Place the pie pan in the middle of cup (stomach) about thirty centimeters from	f the the
	ne part of one variety of woolybooger. at the same time in competition. After		om the environment and place it in the "stome	ach"-

3. Repeat the process two more times.

## AMOUNT OF FOOD BY BEAK TYPE (10)

Type of Beak

food type		spoon			tweezers		C	lothespin			toothpic	k
trial number	1	/ 2	/ 3	1	/ 2	/ 3	1	/ 2	/ 3	1	/ 2	/ 3
rubber bands								,				
(worms)				ļ								
marshmallows					1							
(beetles)		İ		<u> </u>		1						
beans			1	]								
(seeds)			,		Ĺ		i					-
paper clips												ľ
paper clips (fish)												

## ANALYSIS:

Figure out your individual average and enter the value in the chart below under the "I". You will be completing only one column of the table above with your numbers. Share the data with your table mates to complete all four columns. You will give that data to your teacher and as a class you will figure out the class average for each island and beak type. Enter this value under the "C".

## AVERAGE AMOUNT OF FOOD PER BEAK TYPE (10)

Averages

Beak Type →	S	Spoon	Tweeze	ers	Clot	thespin	Tooth	pick
Food Type	I	C	r	С	I	C	I	. с
rubber bands (worms)								
Marshmallows (beetles)								
Beans (seeds)								
paper clips (fish)			,					

	<del>                                      </del>		AMOU	NT OF FOOD	PER BEAK ON	EACH ISLAND (	20)	T	
				-	_		·		+
	<del>                                     </del>			-	_				<del>                                     </del>
				<del>-   -</del>	-				
orm l	sland	Beet	le Island		Seed Island		Fish Island	<u> </u>	
<i>J</i> 1111 1	Siana	Deci	ic Island		Deen Island		FISH ISIBIIC	<u>!</u>	
S r	poon		tweezers		clothesp	n	toothpick		
NCI NCI	<u>USION</u>								
the	area below to to	ake jot notes	s as you discuss the complete explanati	ne questions wit	th your group. The	en use a separate	sheet of paper to v	vrite your own	answer,
_			•						
1.	Which beak t	ype is least a	adapted to any of	the food types?	How do you kn	ow? (7)			
2.	Which beak ty	ype would b	ecome the new sp	pecies on each o	of the island if ma	ny thousands of y	ears passed? Why	? (7)	
	<del>.</del>						····		
3.	Which island	would most	likely keep the n	ost variety of v	voolyboogers ove	r the years? Why	?(7)		
		•				1900	· · · · · · · · · · · · · · · · · · ·		
			o doooaadad Gaa		3 G1 C-11				1.1
	TE all a Etha a		s descended from	a widely varie	a nock of the san	ie species of organ f woolybooger?	iism that had arriv Ise the terms belo	ed on the islar w to explain in	id iong ago 1 detail (24
4.	If all of the v	voolybooger ch of the isla	ands end up with	Only one or twe					1 404411, 12,
	how would ea	ch of the isla	ands end up with			11			
	how would ea	voolybooger ch of the isla accessive ge	ands end up with	natural s		inherited varia		peciation	evoluti
	how would ea	ch of the isla	ands end up with			inherited varie		peciation	
	how would ea	ch of the isla	ands end up with			inherited vari		oeciation	·
	how would ea	ch of the isla	ands end up with			inherited vari		peciation	·
	how would ea	ch of the isla	ands end up with			inherited vari		peciation	·
	how would ea	ch of the isla	ands end up with			inherited vari		oeciation	·
	how would ea	ch of the isla	ands end up with			inherited varia		peciation	·
	how would ea	ch of the isla	ands end up with			inherited vari		peciation	·
	how would ea	ch of the isla	ands end up with			inherited vari		peciation	·
	how would ea	ch of the isla	ands end up with			inherited varia		peciation	·
	how would ea	ch of the isla	ands end up with			inherited vari		peciation	•
	how would ea	ch of the isla	ands end up with			inherited varia		peciation	·
4.	how would ea	ch of the isla	ands end up with			inherited varia		peciation	·
	how would ea	ch of the isla	ands end up with			inherited varia		peciation	