



Blue-throated macaws (*Ara glaucogularis*) inhabit small tracts of forest in the South American country of Bolivia. It lives in small flocks and pairs off during breeding season, claiming and excavating their own nest hollow. Males are often larger than females, with as much as 200 grams between them. They feed on different types of plants but tend to consume the nuts of certain palms as their primary diet. They nest in tree hollows, hatching up to three eggs. Their population has declined to approximately 300 birds in the wild, currently due to deforestation which has left their range

fragmented. Captive breeding programs have successfully raised these birds in order to maintain genetic diversity.

Laney Rickman, an aviculturist and founder of the Bird Endowment, has successfully produced chicks raised by their own parents. Three generations of these birds now live at her Blues Conservatory. She has collected much data over the years on what parent birds need to successfully raise healthy chicks. She carefully observes what they eat and modifies their diet to ensure the chicks are being fed what they require. Some data that has been collected includes weights on chicks to track their growth and development. You will make observations of the data provided in order to view the growth rates of two chicks and draw conclusions based on that data.

Your task: In small groups, review the data and do your best to make sense of it. Identify similarities and differences among the data and look for patterns. What does this data tell you?

Before graphing, write your group's observations here. What do you see when observing the data?

Data Analysis: Plot the points on the graph provided and connect them with straight lines to view the growth rate of each chick. You can either make the lines for each chick different color or different patterns to easily differentiate them from each other.

Conclusions:

- 1) How are the chicks similar? _____

- 2) How are the chicks different? _____

- 3) What does this difference tell you? _____

- 4) When chicks begin to wean, they often lose weight. When did this appear to occur? _____



Age (days)	Weight (grams)	
	Chick #1	Chick #2
15	290	332
20	396	429
25	525	588
30	640	725
35	690	813
40	723	876
45	760	912
50	772	906
55	799	888
60	770	858
65	764	841
70	730	800
75	704	767
80	668	721
85	623	686
90	642	676
95	638	679
100	638	680
105	640	694

