

Bird-Brained Foraging Worksheet

Name _____ Date _____

1. In the Data Table, record the quantity of walnuts and quantity of seeds that you ate while you were a crow. (5 pts)
2. Calculate how many energy units that you gained, and record this in the data table. (5 pts)
3. Determine your efficiency (energy units you gained per piece of food) for each day, and record this information in the data table. (5 pts)
4. Calculate the totals and averages for how many pieces of food that you ate, how many energy units you gained, and your efficiency. (5 pts)

Data Table

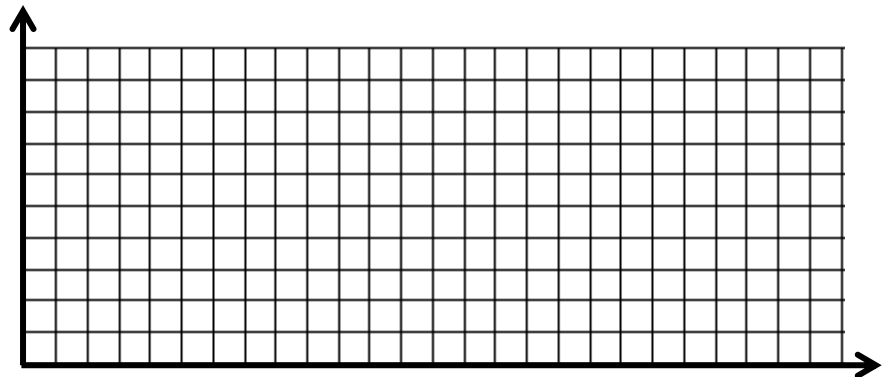
Foraging Day	Quantity of Walnuts (a)	Quantity of Seeds (b)	Energy Units (a x 3) + (b x 1) = (c)	Efficiency c ÷ (a + b)
Day 1	_____	_____	_____	___ ÷ (___ + ___) = ___
Day 2	_____	_____	_____	___ ÷ (___ + ___) = ___
Day 3	_____	_____	_____	___ ÷ (___ + ___) = ___
Total	_____	_____	_____	_____
Average	_____	_____	_____	_____

5. Label the x-axis and y-axis. Graph the relationship between the quantity (x-axis) of each type of food that you ate and your foraging efficiency (y-axis) for that day. You should have 6 points on the graph, and will use each efficiency value twice (once for each food). Connect the points for each type of food. (20 pts)

Legend

■ Walnuts

○ Seeds



6. Describe the strategy that made you the best crow forager. Explain how/if your foraging strategy changed between rounds, and explain whether or not your new strategies were better. (5 pts)

7. Was eating walnuts or seeds more efficient? Explain why. (5 pts)

8. Why do crows sometimes share information with each other instead of always being selfish? Why did you choose to share (or not share) with your classmates? If your class did a similar activity each week, how would your sharing strategy change? (15 pts)

9. List 3 factors that crows (or ravens) use when choosing what to eat, and describe a situation where each is the most important factor. (20 pts)

10. Challenge: Imagine that you are a raven who is terrible at finding food but good at breaking into tough food and defending it afterward. Decide whether you would be more or less likely to share information with your fellow raven, as compared to a bird that is good at finding food. Explain why. (10 pts)