

**AFTERSCHOOL TRAINING TOOLKIT**

**Tutoring to Enhance Science Skills**

**Tutoring One: Interpreting Data from Birdfeeders**

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**Birds Attracted to Different Types of Birdfeed**

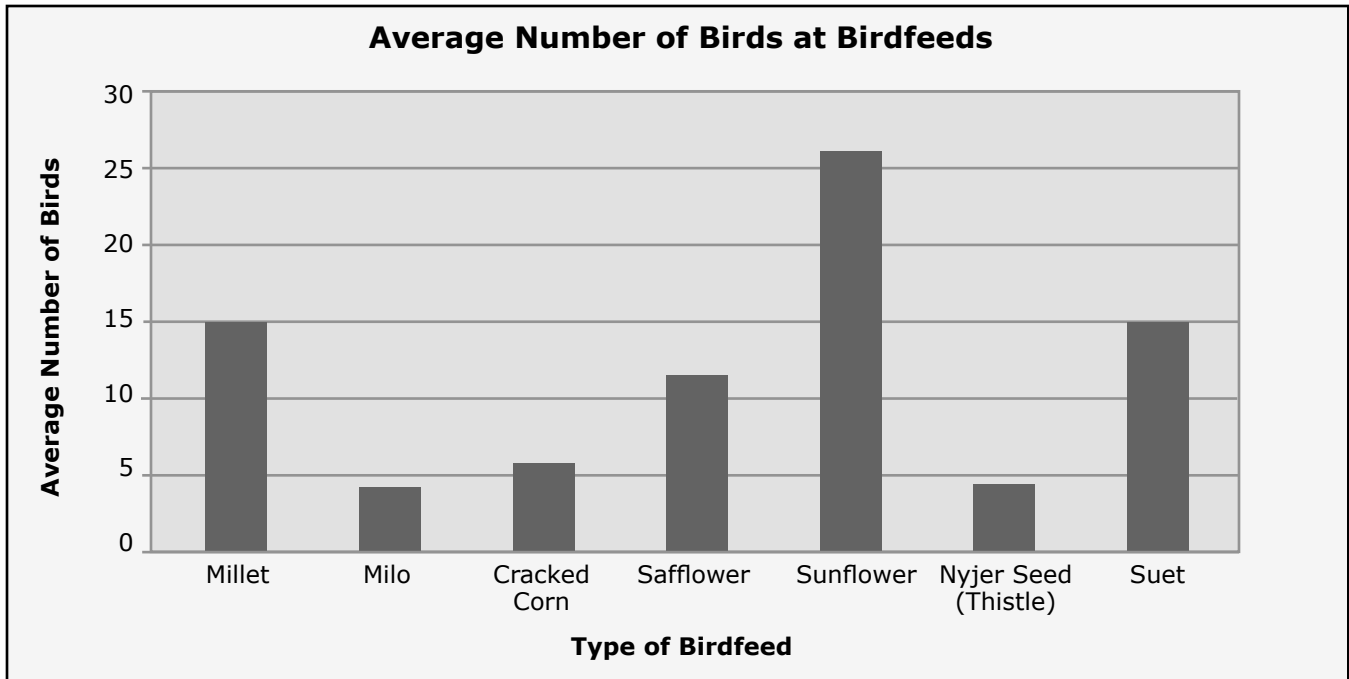
Team Name	Number of Birds					Average Number of Birds
	Day 1	Day 2	Day 3	Day 4	Day 5	
Millet	10	15	17	18	15	15
Milo	2	4	5	5	4	4
Cracked Corn	3	6	8	7	6	6
Safflower	15	10	13	11	11	12
Sunflower	26	28	26	22	28	26
Nyjer (Thistle)	4	3	5	4	4	4
Suet	17	13	15	16	14	15

Using the data table, answer the following questions.

1. Which type of birdfeed was the favorite choice of most of the birds?
2. Which type of birdfeed was the least favorite choice?
3. Which combination of three types of feed would probably attract the most birds to the bird feeder?
4. How many days did the students collect data?
5. What were some things that should have been held constant? (For example, the weather, the time of day that the birdfeed was put out, or anything else that might have affected the outcomes.)
6. What is the independent variable in this investigation? (Hint: an independent variable is something that the investigator can control or vary.)
7. What is the dependent variable in this investigation? (Hint: a dependent variable is something that the investigator can't control or is dependent on the experiment.)

8. How many trials were there?
9. What is the title of the data table? Can you think of a better title?

The following bar graph was made using the birdfeed data.



Answer the following questions using this graph.

1. Which type of birdfeed was the favorite choice of most of the birds?
2. Which type of birdfeed was the least favorite choice?
3. Which combination of three types of feed would probably attract the most birds to the birdfeeder?
4. Which two types of birdfeed attracted the same number of birds?
5. Does the graph help you answer the questions? What could you do to the graph to make it easier to read?
6. What is the title of the graph?
7. What is value of each line on the y axis? (Hint: the y axis is verticle)
8. What is the label on the x axis? (Hint: the x axis is horizontal)
9. What is the label on the y axis?

## Food Preferences of Common Feeder Birds

Kinds of Birds	Food Preferences						
	Sunflower	Safflower	Corn	Millet	Milo	Nyjer	Suet
Chickadees, Titmice, Nuthatches	X	X					X
Finches	X	X		X		X	
Cardinals, Grosbeaks	X	X					
Sparrows, Blackbirds	X		X	X			
Jays	X		X		X		X
Woodpeckers	X						X
Orioles, Tanagers							X
Pigeons, Doves			X	X	X		
Indigo Buntings	X			X		X	

Data Source: *Cornell Lab of Ornithology's Seed Preference Test, Winter 1993-1994*, sponsored by National Science Foundation.

Answer the following questions based on the information in the data table above.

1. Which birdfeed do most birds prefer?
2. What foods do finches prefer?
3. If you want to attract orioles to a birdfeeder, what food must be available?
4. Which birds like suet?
5. What foods do both chickadees and cardinals prefer?
6. If you were going to make a mix of three kinds of feed to attract the most birds, what would you choose? Explain your answer. What kinds of birds would come to the feeder?
7. What other patterns do you find in the data?