Elaborate: Predator/Prey Interactions

PROCESS AND PROCEDURES

1. Some classic data used to study the relationship between predator and prey populations are the pelt trading records of the Hudson Bay Company in Canada. Part of this data is presented in the following table. Enter the following table into your lab notebook:

Time elapsed (years)	# snowshoe hares (1000s)	# lynx (100s)
0	20	10
2	55	15
4	65	55
6	95	60
8	55	20
10	5	15
12	15	10
14	50	60
16	75	60
18	20	10
20	25	5
22	50	25
24	70	40
26	30	25
28	15	5

2. Plot the data from the above table on a line graph. Graph the rabbit data using one color and the lynx data using a different color. Be sure to include a key for your graph.

ANALYSIS

Write the following questions in your notebook and answer them using complete sentences.

1. Identify which of the two animals is predator and which is prey.
2. What types of factors might affect the size of the snowshoe hare population?
3. Snowshoe hares are white and blend in with the snow in the winter. How might a warm winter (less snow) affect their survival? Explain.
4. Which population (hares or lynxes) do you think might be more easily affected by disease? Explain the reason you think this might be so.
5. Does a change in the size of the hare population affect the size of the population of lynxes? Explain.
6. Does a change in the size of the lynx population affect the size of the hare population? Explain.
7. Using the information from questions #5 and 6, explain why the sizes of the two populations keep cycling up and down over time.