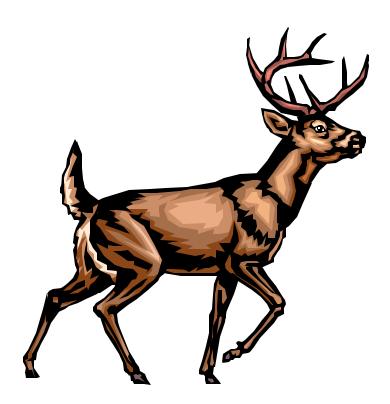
Name:	_ School:
Date:	District:

Ecosystems Assessment

Background:

The white-tailed deer is a large woodland mammal, native to North America and Delaware. Native Americans hunted deer and used it for food, tools and clothing. Today, white-tailed deer is hunted mainly for food and sport. In their natural surroundings, the deer eat grasses, shrubs, and young trees.

In recent years, the deer population has been growing quickly on the Delmarva Peninsula. This increase may be occurring for several reasons or a combination of factors. The traditional predators of deer - the bears, wolves and mountain lions- have been removed from this area by hunting and habitat destruction. Farmers have also reported seeing more deer eating their crops in recent years than in past years.



White-Tail Deer

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()	uestion	C	٠

1. In the ecosystems unit you were asked to look at statements and questions to determine if they can be answered scientifically. Over the last 10 years the number of deer-related car accidents has doubled. People believe that the increase is caused by the rise in the local deer population. Is there a relationship between deer-related car accidents and the deer population?

Can the question above be answered scientifically? Yes No (circle one) If you answered yes, explain how. If you answered no, explain why not

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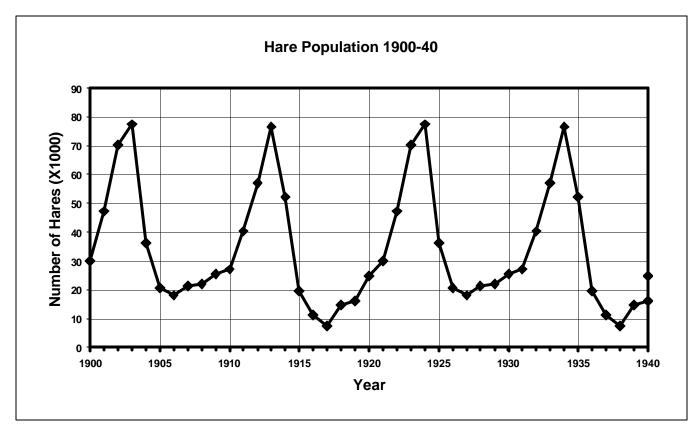
	each factor on the deer population.
,	
3. Identify two structures on a deer that give it an adva	intage for survival. Describe how each of
these structures is an advantage.	anage for survival Beserve now each of
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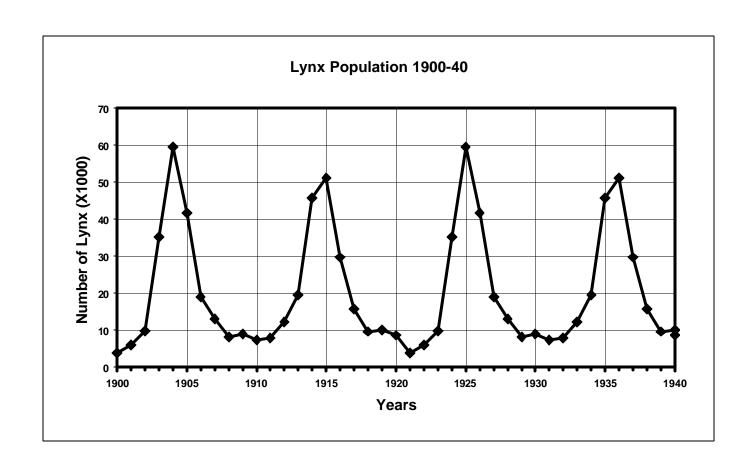
4. Draw a complete food web of a woodland/agricultural area of Delaware with at least 6 organisms, including the white-tailed deer. Remember to use arrows to show the source of and flow of energy through the system.		

6. What might be a possible cause for the pattern you described in question number 5? syour answer with an explanation.	Suppor

7. When your neighbor learned that you were studying horseshoe crabs in school, he made the following statement: Who cares about the horseshoe crabs? The crabs are here for people to use however we want. Take a position either for or against your neighbor's statement. Use data supplied in the tables (see reference sheet) and what you learned from the Ecosystems unit to support your argument.

Reference Sheet Use the following graphs for questions 5 and 6





Use the following tables for question 7

Table 1.
Survey Estimates for Horseshoe Crabs 1998-2002

State	1998	1999	2000	2001	2002
DE	479,634	402,913	248,938	243,489	298,318
NJ	241,456	297,680	398,629	261,239	281,134
MD	114,458	134,068	152,275	170,653	278,211

Table 2.
Rate of Gain in Mass of Red Knots (Grams per Day) Caught 1998-2002

State	1998	1999	2000	2001	2002
DE	7.32	2.94	2.19	4.22	2.33
NJ	5.62	3.02	4.38	4.76	2.62

Table 3.Biomedical Harvest of Horseshoe Crabs in Delaware

	1998	1999
Number of Collected Horseshoe Crabs	345,250	378,193
Transported Horseshoe Crabs	315,400	313,257
Bled Horseshoe Crabs	281,663	284,018
Total Horseshoe Crab deaths related to capture	34,525	37,819

Table 4Horseshoe Crabs Collected by Watermen in Delaware

Year	Number of Horseshoe Crabs
1997	666,262
1998	439,589
1999	402,918