Name:	Date:	Natural Selection Gizmo

Question: How would the population of moths change in a light-colored environment? Experiment: Click Play and hunt peppered moths on light tree trunks for five years. In each year, try to capture as many moths as you can. After 5 years, select the TABLE tab and record the percentages of each moth type.



Year	Dark moths	Light moths	
0			
1			
2			
3			
4			
5			

Question: How would the population of moths change in a dark-colored environment? Experiment: Select the DARK TREES tab. Click **Play** and hunt peppered moths on dark tree trunks for five years. In each year, try to capture as many moths as you can. After 5 years, select the TABLE tab and record the percentages of each moth type.



Name:		Date:	Natural Selection Gizmo
	Activity A:	Get the Gizmo ready:	
	Light trace	Click Reset (2).	

• Check that the LIGHT TREES tab is selected.

Question: How would the population of moths change in a light-colored environment? Experiment: Click Play and hunt peppered moths on light tree trunks for five years. In each year, try to capture as many moths as you can. After 5 years, select the TABLE tab and record the percentages of each moth type.



Year	Dark moths	Light moths
0		
1		
2		
3		
4		
5		

Question: How would the population of moths change in a dark-colored environment? <a href="Experiment"><u>Experiment</u></a>: Select the DARK TREES tab. Click **Play** and hunt peppered moths on dark tree trunks for five years. In each year, try to capture as many moths as you can. After 5 years, select the TABLE tab and record the percentages of each moth type.



Light trees

Year	Dark moths	Light moths
0		
1		
2		
3		
4		
5		

А	n	а	lν	S	ıs

1.	How did the two populations of moths evolve differently?	

2.	How did the allele	frequencies for m	oth color (the	dark allele v	s. the light allele)	change in each population?
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How would scientists determine if the two populations are still the same species, or two different species?(Hint: Members of the same species will do something together that members of different species cannot.)

Year	Dark moths	Light moths
0		
1		
2		
3		
4		
5		

## **Analysis**

4.	How did the two populations of moths evolve differently?	
	• •	

5.	How did the allele frequencies for mo	oth color (the dar	k allele vs. the	e light allele) change ir	each population?

6. How would scientists determine if the two populations are still the same species, or two different species? (Hint: Members of the same species will do something together that members of different species cannot.)