

Peppered Moth: An Activity on Evolution and Natural Selection

1. Go to <http://www.biologycorner.com/worksheets/pepperedmoth.html>
2. In order to do this activity, you are the blue jay who is trying to catch moths and eat them. Therefore, it is okay to practice first before actually doing the activity.
3. On the left hand side of the page, scroll down and click on the “Run Lichen Forest”
4. In the graphic that appears, you will see a bluebird. During the activity, you need to move this blue bird around using your mouse and allow it to catch and eat the moths. In order to eat the moths, you must place the bluebird on the moth and click. You will see across the bottom how many moths are present in the population as well as the “health” of your bluebird. The more it eats, the healthier your blue bird is.
5. To start the timer, click start at the top in order to begin the countdown. Allow this to run for 5 minutes.
6. When 5 minutes are up, record your data in the data table.
7. Now, Click on “Run Soot Forest” and follow the same instructions.
8. When finished, complete the following:

1. Data Table

	Percent Dark Moths	Percent Light Moths
Lichen Forest		
Sooty Forest		

2. Explain how the color of moths increases or decreases their chances of survival depending on the environment.

3. 500 light colored moths and 500 dark colored moths are released into a polluted forest. After 2 days the moths were recaptured, make a prediction about the number of each type of moth that would be captured.

4. How has the striking change in coloration come about? (Include an explanation of how the dark moth appeared and how the proportion of dark moths changed from 0.0005% to more than 90% in polluted forests.)

5. What underlying law of nature has produced this change? (Use Darwin's theory of evolution and apply it to what you have learned in this investigation.)

6. Imagine that a green colored moss started to grow on all the trees in both forest situations. What do you think would happen to the moth populations then?