

Name _____

Block _____

Date _____

Group # _____

Peppered Moth Simulation

<http://peppermoths.weebly.com>

Read the background information and answer the questions as you go.

Life Cycle of the Peppered Moth

1. Why are these moths called "peppered moths?"
2. Describe how peppered moths are camouflaged?
3. Moths that have more dark spots than the average moth are called what?

Impact of Pollution

4. What was the Industrial Revolution?
5. What was causing the different colors in the moths?
6. What is natural selection?

7. Who suggested that peppered moths were an example of natural selection?

8. What is industrial melanism?

Birdseye View

9. Open the simulation and play the role of the bird in both the dark and the light forest. Try to behave as a bird would behave, choosing the moths that are the most obvious. At the end of each simulation, record the percent of moths captured in the table below.

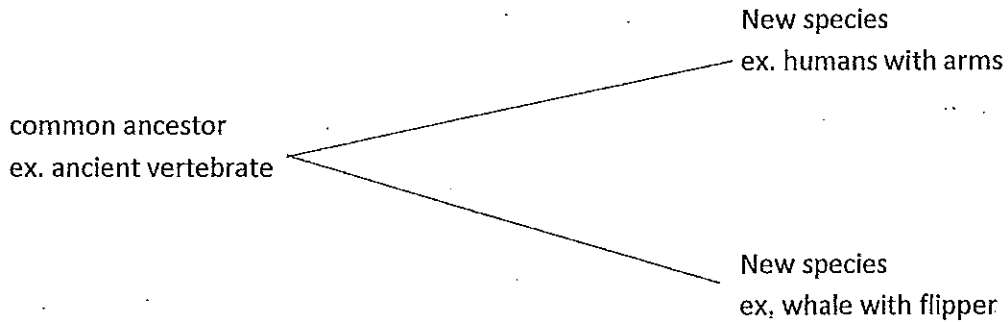
	Percent Dark Moths	Percent Light Moths
Light Forest		
Dark Forest		

10. Explain how the color of the moths increases or decreases their chances of survival.

11. Explain the concept of "natural selection" using your moths as an example.

Divergent vs. Convergent Evolution Notes

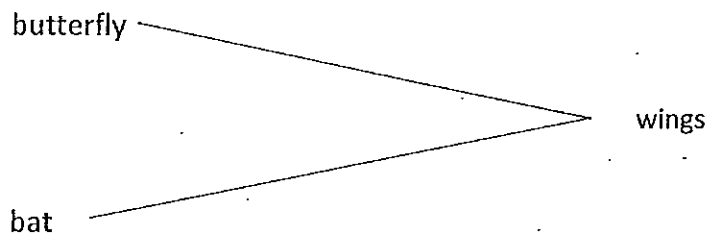
Divergent Evolution ("Adaptive Radiation")-one species evolves into many
(diverge =split)



****new species have homologous structures:** structures have different functions due to adapting to different environments

Convergent Evolution-unrelated species evolve parts with similar functions

ex.



****unrelated species both evolved wings due to adapting to similar environments**
analogous structures: similar in function but different in structure due to adapting to similar environments (ex. invertebrate vs. vertebrate)