

Evolution by Natural Selection

Part I: Evolution PowerPoint → Read through the “Natural Selection” section of the PowerPoint and answer the following questions:

- 1) What is the name of the driving mechanism for evolution of species?
- 2) What does “survival of the fittest” mean? Is it always the biggest and strongest that survive?
- 3) What conclusion did Thomas Malthus make regarding human population (or any species)?
- 4) What did Darwin mean by the term “struggle for existence?”
- 5) What is *artificial* selection?
- 6) Besides pigeons and dogs, give three examples of species that have been altered by artificial selection (*HINT* → *It doesn't have to be an animal.*)
- 7) Would you say that natural selection is a completely random process? Why or why not?
- 8) Fill in the chart with a brief description of each step in your own words:

The Process of Natural Selection

Overproduction	Inherited Variation
Competition	Reproduction

Part II: Natural Selection Illustration → *Click ahead to learn about the Peppered Moth study. Read what happened and then draw an illustration to show what happened to this moth species. Your illustration should have multiple steps.*

Part III: Lamarckian Evolution Illustration → *Think back to what Jean Baptiste Lamarck said about the evolution of species (the passing down of acquired characteristics).*

- A. *Pick a specific physical adaptation of any animal you can think of.*
- B. *Draw an illustration that shows how Lamarck would explain the evolution of this trait.*
- C. *Under your illustration, explain what Lamarck got wrong and what Darwin would probably say.*

How would Darwin explain this adaptation?

