

Types of Evolution/Speciation

- **Graduated model**, a species acquires small adaptations to its environment over millions of years.

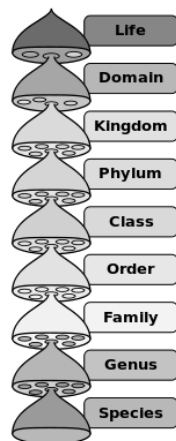
Slow and Steady

- **Punctuated equilibrium model**: Periods of slow and then occasional bursts of speciation.

Fast Bursts

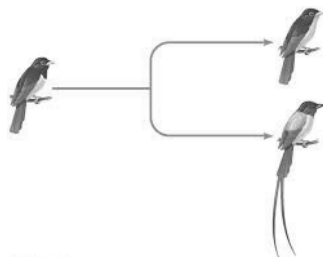
What is a Species?

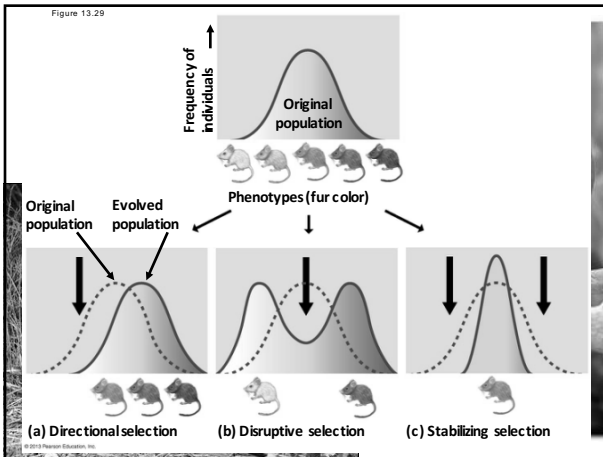
- A group of organisms that can interbreed and produce fertile offspring.



What does it mean to Speciate?

Speciation: the formation of new and distinct species in the course of evolution.





Activity: Which type of selection fits each example

<p>1. Babies Heads:</p> <ul style="list-style-type: none"> • Small: Weak • Med: Just Right • High: Too Big to get out 	<p>2. Giraffes:</p> <ul style="list-style-type: none"> • Short: No • Medium: Mor • Tall: Mor
<p>3. Peppered Moths: As the Industrial Revolution caused trees to darken from soot, darker colored peppered moths were better camouflaged than the lighter colored ones, which caused there to be more of the darker colored moths in the population.</p> <p>Light-colored peppered moths are better camouflaged against a pristine environment; likewise, dark-colored peppered moths are better camouflaged against a sooty environment. Thus, as the Industrial Revolution progressed in nineteenth-century England, the color of the moth population shifted from light to dark.</p>	

Biology and Society: The Sixth Mass Extinction

- Our current rate of extinction, over the past 400 years, indicates that we may be living in, and contributing to, the **sixth mass extinction** period.
- Mass extinctions pave the way for the evolution of new and diverse forms, but it takes millions of years for Earth to recover.

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