



High School Science Virtual Learning

College Biology

Chapter 13 Recap Part 1

May 6, 2020



High School College Biology

Lesson: May 6, 2020

Objective/Learning Target:

Students will be able to discuss how populations evolve and what evidence supports natural selection as the mechanism for evolution.



Let's Get Started:

1. Give a simple definition of evolution.
2. What did Charles Darwin say was the mechanism for evolution?



Answers:

1. Evolution is a change over time.
2. Natural Selection

Lesson Activity:

1. Read over pages 1-14 of the Chapter 13 Notes. ([Linked Here](#))- Stop at Natural Selection as the Mechanism for Evolution
2. Watch this Crash Course video on [Darwin's Theory and Natural Selection](#)

Practice:

1. How did Lamarck influence Darwin? What were some inaccuracies in his theory?
2. What is geographic distribution and where was this very evident on Darwin's voyage?
3. How do homologous structures provide evidence of common ancestry?

Practice Answers:

1. Lamarck was one of the first people to suggest that organisms evolve. His theory of use and disuse along with organisms evolving to perfect versions both later proved to be incorrect.
2. The closer animals are to one another is a better indicator of relationships between organisms than similar environments. This was very evident on the Galapagos Islands.
3. Homologous structures shows that organisms are using the same mechanisms (genes) to develop body plans. Similar genes shared by related organisms have similar mature forms.



More Practice:

1. Place these levels of classification in order from least inclusive to most inclusive: class, domain, family, genus, kingdom, order, phylum, species
2. Which of the following is a true statement about Charles Darwin?
 - a. He was the first to discover that living things can change or evolve.
 - b. He based his theory on the inheritance of acquired traits.
 - c. He proposed natural selection as the mechanism of evolution.
 - d. He was the first to realize that Earth is more than 6,000 years old.

More Practice:

3. How did the insights of Lyell and other geologists influence Darwin's thinking about evolution?

4. Which of the following processes is the ultimate source of the genetic variation that serves as the raw material for evolution?
 - a. sexual reproduction
 - b. mutation
 - c. genetic drift
 - d. natural selection

More Practice Answers:

1. species, genus, family, order, class, phylum, kingdom, domain
2. C
3. Lyell and other geologists presented evidence for the gradual change of geologic features over millions of years. Darwin applied this idea to suggest that species evolve through the slow accumulation of small changes over long periods of time.
4. B



Review Tools:

- [Kahoot 1](#)
- Bozeman Science Video [Evidence of Evolution](#)
- Bozeman Science Video [Natural Selection](#)