

Unit 2: Lesson 2 - Assessment

The Science of Evolution

Section 1: Multiple Choice - Choose the correct answer for each of the following questions.

1. What are the three key principles of evolution discussed in the lesson?
 - a. Evolution, Darwinism, Neo-Darwinism
 - b. Deep time, common ancestry, mechanisms
 - c. Natural selection, random mutations, genetic variations
 - d. Origin of life, homology, fossil records
2. Why is the concept of "deep time" important in the theory of evolution?
 - a. It refers to the time needed for sudden changes in species.
 - b. It emphasizes the recent origin of the Earth.
 - c. It allows for gradual changes in species over an extended period of time.
 - d. It supports the idea that Earth is only a few thousand years old.
3. Which scientific technique is commonly used to determine the age of the Earth?
 - a. Carbon dating
 - b. Radiometric dating
 - c. Tree ring analysis
 - d. Archaeological studies
4. What is the main reason for considering the principle of common ancestry in the theory of evolution?
 - a. To emphasize the differences among species.
 - b. To prove that all species are completely independent.
 - c. To show that all biological life is interconnected through a historical lineage.
 - d. To promote the idea of spontaneous generation.
5. Human Exceptionalism in Cognitive Abilities: Which of the following best describes the cognitive aspect of human exceptionalism?
 - a. The ability of humans to adapt physically to their environment
 - b. The advanced cognitive and intellectual abilities of humans, such as complex thinking and problem-solving
 - c. The physical strength of humans compared to other animals
 - d. The ability of humans to fly
6. Moral and Ethical Reasoning: Human exceptionalism includes the development of:
 - a. Only legal systems
 - b. Complex ethical systems and the ability to ponder questions of right and wrong



- c. Basic instincts for survival
 - d. The ability to hibernate
7. Divine Creation in Theological Human Exceptionalism: According to Islamic theology, Adam A and Hawwa A were created:
- a. Through evolutionary processes
 - b. By a random chance
 - c. Directly by God, as a special creation distinct from natural processes
 - d. As descendants of apes
8. Speech and Knowledge in Islam: Which Surah explains that Allah swt has taught humans eloquence and expression?
- a. Surah Al-Baqarah
 - b. Surah An-Nisa
 - c. Surah Ar-Rahman
 - d. Surah Al-Fatiha
9. Role of Prophets in Human Exceptionalism: In Islamic theology, the role of prophets and messengers is primarily to:
- a. Teach humans about technology
 - b. Guide humans in moral and ethical reasoning
 - c. Lead humans in battles
 - d. Advise on economic matters

Section 2: Short Answer - Write a well-formulated response to each of the following questions.

10. Explain why the age of the Earth is a critical factor in the theory of evolution. Provide an example of how a long period of time is essential for evolutionary changes.
11. Describe the principle of common ancestry and its role in understanding the unity and diversity of life. How is it represented through a Phylogenetic Tree of Life?



12. Neo-Darwinism is defined as a theory of evolution that combines Charles Darwin's natural selection theory with modern population genetics. Considering the information presented in the lesson, do you think Neo-Darwinism is a qat'i (certain) or zanni (probabilistic) explanation for the processes of evolution? Provide a well-reasoned argument for your answer, considering the evidence and challenges discussed.

OR

The knowledge presented suggests that Neo-Darwinism and its principles are zanni/probabilistic rather than qat'i/certain. Explain whether Neo-Darwinism provides a certain or probabilistic explanation for the processes of evolution. Support your argument with evidence and challenges that would result.