

A STUDY GUIDE FOR  
***REFUTING EVOLUTION***  
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*Refuting Evolution*, a response to the National Academy of Sciences' *Teaching about Evolution and the Nature of Science*, is a book that counters the anti-creation sentiment found in the NAS document. Following are questions (with answers) which can be used with *Refuting Evolution* in a classroom setting, or a Sunday school/Bible class setting.

This guide is to be used side by side with the book *Refuting Evolution*. It may be obtained from the Answers in Genesis web site at [www.AnswersinGenesis.org](http://www.AnswersinGenesis.org) by searching for Refuting Evolution Study Guide. (The following pages were downloaded from the AIG web site.)

*Refuting Evolution* may be purchased through the online store at [www.AnswersinGenesis.org](http://www.AnswersinGenesis.org)

**STUDENT STUDY GUIDE**

## INTRODUCTION

1. Why is it hard to believe the statement made in the NAS book that many students receive little or no exposure to evolution? (p. 13)

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2. Why is it hard to believe the statement made in the NAS book that evolution is an "essential concept" in biology? (p. 13)

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3. Name some creationists and their important discoveries. (p. 14)

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*This could be a project for anyone who wishes to find out about more important discoveries by creationists. As you read through this book, more scientists who believe(d) in creation will be mentioned. See how many you can find! (see p. 26)*

**CHAPTER 1 - Evolution and creation, science and religion, facts and bias**

1. Many books contrast religion/creation opinions with evolution/science "facts". This is a misleading contrast. Why? (p. 15)

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2. Why is it incorrect to believe that facts speak for themselves?

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3. Evolution comes from the notion that things made themselves. What unproven ideas does evolution include? (p. 16)

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4. Give a brief explanation of the statement (p. 17): "It's not really a question of who's biased, but which bias is the correct bias with which to be biased!"

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5. Many evolutionists chide creationists because creationists refused to play by the current rules of the game. What is the main rule? (p. 18)

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6. Two tenets of the *Humanist Manifesto II* that exactly state what evolution teaches are? (p. 20)

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**NOTE:** The U.S. Supreme Court in *Torcaso v. Watkins*, 81 S.Ct. 1681 (1961) makes the following statement: Among religions in this country which do not teach what would generally be considered a belief in the existence of God, are Buddhism, Taoism, Ethical Culture, **Secular Humanism** (emphasis added), and others. Since the US Supreme Court has named secular humanism as a religion, and since the two tenets above come from the humanist manifesto, one can conclude that by teaching evolutionism (or at least the part of evolutionism that says that the universe is "self existing and not created", and that man "has emerged as a result of a continuous process") a teacher is, in fact, teaching a religion. The humanists are the loudest criers of the notion of separation of church and state and that anything religious may not be taught in the government schools. Therefore, this could lead to the idea that evolutionism must not be taught in the government schools, since it is religion (according to the US Supreme Court).

7. How does *Teaching about Evolution ...* try to sanitize evolution? (p. 22)

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8. What is theistic evolution and do many Christians oppose theistic it? (p. 22).

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9. How can one say that evolution and creation are compatible? Is this true? (p. 22)

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10. *Teaching about Evolution* says that God created everything *in its present form* over the course of six days. What's the truth? (p. 23)

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11. *Teaching about Evolution* says: "Statements about creation should not be regarded as reasonable alternatives to scientific explanations for the origin and evolution of life." Is this a "religiously neutral" remark? Why or why not? (p. 23)

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12. What is *normal* science? (p. 28)

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13. Why is evolution NOT normal science? (p. 29)

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14. Why is it wrong to believe that rejecting evolution is rejecting the type of science that put men on the moon? (p. 29)

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15. What do Biblical creationists believe?

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## CHAPTER 2 - Variation and natural selection vs Evolution

This chapter contrasts the evolution and creation models. The NAS implies that all changes in organisms are examples of "evolution." This allows them to claim that evolution is happening today. HOWEVER, creationists have NEVER disputed that organisms change; the difference is the TYPE of change. A key difference between the two models is whether *observed changes* are the type to turn particles into people.

1. What does evolution - of the fish-to-philosopher type - require? (p. 31)

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2. What aspect of the creationist model is often overlooked? (p. 33)

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3. Explain why evolutionists do not have a monopoly on natural selection. (p. 34)

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4. What is the *founder effect*? (p. 37)

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5. The NAS book uses resistance to antibiotics and pesticides as an example of evolution. Why is this **not** a good example? (p. 40)

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**CHAPTER 4 - Bird evolution?**

Birds are animals with unique features like feathers and special lungs, and most birds are well designed for flight. Evolutionists believe they evolved from reptiles, maybe even some type of dinosaur. Arguments for these so-called bird-to-reptile evolutions are examined in this chapter.

1. Present the case for and against *Archaeopteryx* being a "missing link." (see pp. 57-60)

Evolutionists claim:	THE FACT IS:



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Reptiles have:

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4. What is the main difference between the reptilian and avian lungs?

The reptilian lung:

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The avian breathing system:

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## CHAPTER 5 - Whale evolution?

Cetaceans (whales and dolphins) are actually mammals, **not fish**. They live their whole lives in water. Evolutionists believe that cetaceans evolved from land mammals. One of these alleged transitional series is mentioned in *Teaching about Evolution*. This chapter analyzes this and other arguments for cetacean evolution.

1. Cetaceans have many unique features. Name a few. (p. 69)

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2. *Teaching about Evolution* reconstructs some fossil discoveries that are purported to support whale evolution. Can you name a few discrepancies in the NAS' thinking? (p. 72)

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## CHAPTER 6 - Images of God or advanced apes?

Humans are very different from animals. Humans have the ability to use language and logic. *Teaching about Evolution* points out a number of contrasts between humans and apes and indoctrinates readers with the idea that humans have descended from a simple cell via ape-like ancestors using alleged DNA similarities.

1. Charles Oxnard, an evolutionist, does not believe that australopithecines were in the human line. Why not? (p. 80)

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2. What are mitochondria? (p. 81)

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3. *Teaching about Evolution* emphasizes physical and DNA similarities between human and other living organisms. This is an *interpretation* of the data. Give another interpretation of the same data. (p. 82)

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4. Name some similarities between organisms that evolutionists don't believe are closely related. (p. 83)

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5. What does "Mitochondrial Eve" mean? (p. 88)

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## CHAPTER 7 - Astronomy

Evolution is a philosophy that tries to explain everything without God. *Teaching about Evolution* presents the prevailing evolutionary view on astronomical origins.

1. Which non-scientific assumption is the "big bang" based on? (p. 94)

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2. What is the *cosmological principle*? (p. 94)

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3. Dr. Russell Humphreys, a nuclear physicist, has developed a cosmology that allows for the formation of the universe in a Biblical time frame, using Einstein's theory of general relativity (the same theoretical foundation as the "big bang" ). Why does this new cosmology work? (p. 95)

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4. *Teaching about Evolution* (p. 52) makes the following **dogmatic** statement: "The sun, the Earth and the rest of the solar system formed from a nebular cloud of dust and gas 4.5 billion years ago." Why is that statement dogmatic? (p. 95)

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5. What is the "nebular hypothesis" and some problems with it. (pp. 95-96)

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6. What is a geocentric system?

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7. Some skeptics assert that Biblical passages that say that the sun rises and sets are errors. Why is this accusation absurd?

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## CHAPTER 8 - How old is the Earth?

For particles-to-people evolution to have occurred, the Earth would need to be billions of years old. *Teaching about Evolution* presents a claim for vast time spans and graphically illustrates this assertion in a chart on pages 36-37.

On the other hand, basing one's ideas on what the Bible says gives a different picture. This chapter analyzes rock formation and dating methods in terms to the two competing models.

1. Give one common evidence used (by evolutionists) to prove that the Earth is very old.

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2. How are sedimentary rocks formed?

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3. Because sedimentation *usually* occurs slowly today, it is *assumed* that it must have always occurred that way. And if this is so, then the rock layers must have formed over vast ages. This is a simplification of what philosophy? (104)

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4. Contrast uniformitarianism with catastrophism. (p. 105)

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5. What is radiometric dating? (p. 107)

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## CHAPTER 9 - Is the design explanation legitimate

*Teaching about Evolution* frequently dismisses Creation as "unscientific" and/or "religious". Creationists point out that creation occurred in the past, so it cannot be directly observed by experimental science - but then, neither can large-scale evolution. This chapter discusses criteria that are used in everyday life to determine whether something has been designed, and applies them to the living world, and whether or not design is a legitimate explanation for life's complexities.

1. This chapter mentions several instances that point to intelligent design. Discuss three of them.

(a) give an example of *specified complexity* - there are several mentioned (p.1

~~(b) give an example of *repetitive arrangement* of atoms (p. 119)~~

~~(c) give an example where the design criterion may also be described in terms of information (p. 120)~~

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2. Michael Behe, in his book, *Darwin's Black Box*, talks about *irreducible complexity*. What is irreducible complexity? (p. 122)

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3. What example does Behe give? (p. 122)

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4. Give at least two examples within living organisms that show irreducible complexity. (pp. 122-123)

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5. What is the "general theory of evolution"? (p. 125)

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6. What are common terms for the theory that the first living cell came from non-living molecules? (p. 125)

7. Even if we grant evolutionists the first cell, there is still one remaining problem. What is it?

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## CHAPTER 10 - Conclusion

The book (*Refuting Evolution*) addressed the main arguments for evolution presented by the National Academy of Science. *Refuting Evolution*, in particular, covered the following areas:

Facts do not speak for themselves, but must be \_\_\_\_\_ according to a framework. Evolutionists are \_\_\_\_\_ toward naturalism. Creationists admit they are \_\_\_\_\_ in favor of creation as revealed in the Bible. Both groups are working with the same \_\_\_\_\_. Both groups \_\_\_\_\_ the facts differently.

Those who adhere to a Biblical creation/corruption/flood framework teach that organisms change through time, and that \_\_\_\_\_ and natural selection play a large part in this. So do particles-to-people evolutionists. The difference is that evolutionists \_\_\_\_\_ that the changes eventually increase the information content and that a single living cell was the ancestor of all other life. Creationists believe that Creator God created separate kinds.

Birds are unique creations with wings and feathers designed for flight, and special lungs - completely different from any \_\_\_\_\_. It is reasonable to conclude that birds \_\_\_\_\_ evolve from non-birds.

Whales are mammals \_\_\_\_\_ for life in water. The NAS asserts that whales \_\_\_\_\_ from land animals. On close analysis, however, these assertions do not stand up.

Humans are very different from apes, especially in \_\_\_\_\_ and \_\_\_\_\_. The NAS gives a series of *alleged* ape-man skulls. The evidence, however, shows that humans and australopithecines are distinct \_\_\_\_\_. Included in this section is an analysis of various parts of the anatomy of both \_\_\_\_\_. A common creator is a better explanation for both the similarities and the differences.

The "big bang" theory is also presented by the NAS. However, there is no satisfactory explanation that conveys how the universe could come into existence without a \_\_\_\_\_, or for that matter, with regard to the formation of stars and solar systems after such a "bang".

*Teaching about Evolution* teaches that the Earth is \_\_\_\_\_ of years old and uses the fossils and radiometric dating as "proof". There is evidence, however, that many rocks and fossils were formed by catastrophic processes, which is consistent with the Biblical framework that includes a \_\_\_\_\_. Radiometric dating relies on several untestable assumptions about the past, and the methods have often proven false or self contradictory.

Finally, it is shown that the design explanation is legitimate and that the only reason to reject it is an \_\_\_\_\_ faith in materialism.