

Chaos or Cosmos?

Central Verses

Genesis 1:1-28

Isaiah 14:24

Psalms 104:24

Proverbs 3:19

Romans 1:20

Ephesians 2:10

Key Points

- Scientific evidence confirms that the biblical record is historically accurate right from the beginning.
- When you consider the world around us, do you see randomness or design? It's one or the other — it can't be both.
- Most secular scientists see the “theory” of evolution as the “fact” of evolution.
- Diverse branches of life share similar design.
- Beauty is not random — it exists for our enjoyment and aesthetic pleasure.
- Design is functional as well as beautiful.
- God designed mimicry so that animals can change and adapt to their surroundings.
- Animals adapt only within their own kind, and the ability to adapt is built into their DNA.
- Nature doesn't select. The “selections” are already designed into each creature's DNA.
- Natural selection is not demonstrated by any examples of transitional forms that show change from species to species.
- In the first chapter of Genesis, God recorded the steps that He wisely took to create the world.

Think about it:

- Where do you see evidence of design in our world?
- Why is design important?
- What are some examples ways in which the same design is shared by many different branches of life?
- In your own words, what is the definition of natural selection? How and when was this taught to you in the past, and what did you think?
- What are some of the problems with natural selection? Give examples.
- What does the analogy of car design teach about creation?
- What is the significance of Occam's Razor for creation science?
- If the world was planned and purposed by God, what does that say about you?

Join the Conversation

- Why is the same design shared by many different branches of life?
 - Evolution says: Through natural selection and because we all came from the same common ancestor, we adapted features that are similar to other creatures but that are still unique to our own species.
 - Creation says: The evidence shows that one Designer integrated similar designs into different creatures.
- Why is there beauty in nature?
 - Evolution says: Functionality is the primary thing that natural selection values.
 - Creation says: Beauty was designed for our enjoyment — and God's.

- Adaptation occurs in animals.
 - Evolution says: “Adaptations” occur by the same evolutionary processes that explain how some animals developed the structures required for flight.
 - Creation says: Animals do adapt but only within their own kind, and only in body structures that can be altered without disrupting core features of the organism. Adaptation typically comes from an internal, created source — DNA — not an external source.
- Natural selection explains our world.
 - Evolution says: Through natural selection we adapted features that are similar to other creatures but are still unique to our own species.
 - Creation says: Natural selection is often a misnomer. Nature can’t select because it is mindless. Selection is designed to occur in each creature’s DNA during reproduction and development. Consider the mimic octopus — his red, yellow, brown, and black color-changing cells are not an adaptation that the environment selected. They are precise design features.
- What about transitional forms?
 - Evolution says: When a fish evolved into an amphibian, it did so through random processes over millions of years. And as the fish became an amphibian, it first changed into numerous transitional creatures that appeared for at least a short time along the way. These transitional forms are known as “missing links.”
 - Creation says: The creatures that evolutionists say “should be” between fish and amphibians are nowhere to be found by any scientists who have been looking for them over the past 150 years. Every proposed transitional fossil is disputed by evolutionists, so there are no undisputed transitional forms. They don’t exist. The missing links are still missing!

Conclusion:

In the first chapter of Genesis, God laid out the steps that He wisely took during the creation of this world.

Our world didn’t happen by chance. It was planned and purposed by God, the great Designer.

What is Life?

Central Verses

Leviticus 17:11

Genesis 1:25

Genesis 1:28

Genesis 1:29

I Corinthians 15:26

Key Points

- Many different theories have been suggested as explanations for how life started.
- Even though no one witnessed either creation or evolution, we can look at today's evidence and arrive at a reasonable theory about how life began.
- Natural laws, genetic evidence, and other data point to the divine origins of plants and animals.
- Creationists and evolutionists agree that life throughout the planet is based on the same basic DNA.
- Non-creationist theories on how life started include deep-sea vents, primordial soup, and life transported to Earth from space.
- The entire theory of evolution and a "universal common ancestor" assume that non-life (chemicals) can create life, but scientific experiments have never been able to create life from nonliving matter.
- Each animal was created to use all of its abilities encoded into its unique DNA to fill its own niche in the world, but only man was created in God's image with responsibility over animals.
- Evolution says that life starts with chemicals randomly aligning, leading us to conclude that death is just another set of chemical reactions. With evolution, life ceases to have meaning.
- Creation says that the evidence points to God as the source of life, and the Bible tells us that, if we trust in Jesus, His Son, then we will have eternal life with God.

Think about it

- How would you describe the beginning of life on Earth if you had only a minute to talk to someone?
- What are some common theories about how life began?
- What are some of the ways by which various worldviews define life, and how is the Bible's definition different?
- Briefly summarize some of the flaws of secular origin theories. Practice constructing an effective "case" for creation.
- Why does what we believe about origins matter?

Join the Conversation

- Common Ancestry
 - Evolution says: Evolutionary biologists say that DNA evidence indicates that we all have a "universal common ancestor" from which all living organisms descended. Secular scientists don't all agree on exactly what that ancestor is, but many say that we're all biologically related to something like a bacterium.
 - Creation says: There's still the question of how that first organism came to be. The entire theory of evolution and the last common ancestor depend on the assertion that non-life can create life. But evolution has a chicken-and-egg problem. You need DNA to make proteins, you need DNA to make RNA, and you need RNA to make proteins. These are all interacting, interdependent upon one another. What came first? Clearly, they all arose at the same time. Having a creator explains the intricacy of even the most basic cell and the complexity of the most basic functions of life and solves the problem of whether

DNA, RNA, or proteins came first. The evidence supports the Bible's record of how God made everything — plants, butterflies, humans — at the same time.

- The Primordial soup
 - Evolution says: The entire theory that life evolved from a primordial soup assumes that non-life can create life; through random chance, nonliving chemical elements were able to spontaneously combine to form reproducing cells. Even though scientific experiments have never been able to create life from nonliving matter, in order to work, evolutionary models require that spontaneous generation of life happened at least once at the very beginning.
 - Creation says: Experiments from Louis Pasteur's day demonstrated that life only comes from life. Living creatures have in their DNA the components needed to virtually duplicate themselves.
- Vertical Evolution
 - Evolution says: Vertical evolution asserts that simpler life forms gave rise to more complex life forms over long spans of time by random chance and through mechanisms such as life adaptation, mutations, and natural selection.
 - Creation says: Those mechanisms are inadequate. One problem is that we only see adaptations occur in features that already exist. Mutations don't create new DNA — they only alter DNA that already exists. For example, beak shapes adapt, but beakless birds don't grow beaks. Also, mutations are seldom beneficial, and the harmful ones accumulate many times faster than any beneficial ones. Last, if natural selection does anything at all, it merely erases genetic options when members of a population die. Added together, these mechanisms actually demonstrate the downhill nature — vertical *devolution* — of creature changes over time. Just as the Second Law of Thermodynamics says, everything tends to go from order to disorder.

What is Man?

Central Verses

Genesis 1:27

Romans 5:8

Philippians 2:13

Key Points

- For centuries, Western scientists described human origins with a worldview that was dominated by the Bible.
- In the 19th century, Thomas Huxley and Charles Darwin suggested that mankind evolved from primates.
- Three basic assumptions of evolution are:
 - Evolution occurs over long spans of time
 - Differences between living creature are the result of natural selection, adaptations, and mutations
 - Similar design indicates a common ancestor
- Darwin and Huxley believed that similarities in human and ape anatomy meant that man evolved from apes.
- DNA is a macromolecule found in the nucleus of almost every cell of every living thing, and it determines your physical attributes and what kind of creature you are.
- Evolutionists point to our supposed DNA similarities to chimpanzees to try to prove that we evolved and weren't specially created.
- It's common to hear that chimpanzee DNA is 98-99% similar to human DNA, but those percentages are not based on the whole genome. These statistics only describe the segments that are very similar, neglecting the regions that are different. Overall, the chimpanzee genome is actually only 70% similar to the human genome.
- Major physical, emotional, intellectual, and spiritual differences set humans apart from animals.
- God made both animals and people, but humans are the only creatures created to have fellowship with God through Jesus Christ — this gives our lives meaning.

Think about it

- When did the biblical worldview cease being the mainstream authority for explaining science? What other major events were happening around the same time?
- What “line” did Darwin wait for Huxley to “cross” before suggesting that humans came from apes? Why did he wait?
- If there was a common ancestor, what is some evidence that we should find?
- Use the analogy of letters, words, and sentences to describe how DNA works.
- What are some of the main problems with comparing humans and chimpanzees?
- Discuss the characteristics that set humans apart from animals. Can you give examples from your own life?
- What does it mean for something to be “irreducibly complex”?
- What ultimately gives human lives meaning?

Join the Conversation

- **Three basic premises of evolution**

- Evolution says:
 - Evolution occurs over long spans of time
 - Differences in organisms result from natural selection, adaptations, and mutations.
 - Similar design indicates a common ancestor.
- Creation says:
 - None of the major steps of evolution has ever been demonstrated in the lab.
 - Evolution happens too slowly to be observed — by the evolutionists' own admissions — and therefore falls outside of science
 - In his book *On the Origin of Species*, Charles Darwin said that “if it could be demonstrated that any complex organ existed, which could not possibly have been formed by numerous, successive, slight modifications,” his “theory would absolutely break down” (Darwin, C. 1859, *On the Origin of Species*. London: John Murray, Chapter VI, 189).

- Did humans evolve from chimpanzees?

- Evolution says:
 - The chimpanzee genome is 98-99% similar to the human genome.
 - Humans and chimpanzees are anatomically comparable.
 - Humans are merely complex animals.
- Creation says:
 - These estimates are based on isolated segments of DNA that we share with chimps that are very similar. They are not based on the whole genome. Overall, the chimpanzee genome is only 70% similar to the human genome. About 900 million DNA letter differences in genomes separate humans and chimpanzees. That's a huge difference that cannot be explained by evolution. Genetic variation between any two humans worldwide is only about 1%.
 - Several physical differences between humans and chimps dispel some of the myths of comparable anatomy.
 - Physical, emotional, intellectual, and spiritual differences clearly separate humans from animals. Evidence indicates that only humans are made in the image of God and designed for fellowship with Him-and that gives us meaning.

Buried Clues

Central Verses

Genesis 7:19, 21

Key Points

- Fossils provide evidence that can help us understand what kinds of life existed in the distant past.
- The fossil record is composed of fossils that lie buried in rock formations in the sedimentary layers, or strata, of the earth.
- When you look at which fossils are buried in which layer, you supposedly get a picture of how life evolved slowly and gradually — from the simplest organisms buried in the deepest layers to more complex, and supposedly more recent, organisms like dinosaurs.
- If evolutionary change happened gradually, there should theoretically be transitional forms in the fossil record.
- There is diversity in the fossil record. Lack of decay indicates rapid burial of creatures.
- Stability in the fossil record — complete creatures — shows a lack of transitional forms.
- What the fossil record *doesn't* show is as important as what it *does* show.
- The Cambrian Explosion and the geologic column expose missing evidence needed to support evolution:
 - The absence of transitional forms
 - Huge gaps in strata, or “unconformities,” that indicate missing layers of supposed geologic time
- Soft tissues found in dozens of fossils challenges (and shortens) the evolutionary timescale.
- The evidence matches the written history of the Genesis Flood.

Think about it

- What are some of the biggest problems that the fossil record creates for evolution?
- In what ways can evolution be considered a religion?
- What supposed key evolutionary evidence is missing from the fossil record?
- Why do creationists know that no fossils are really “missing,” and what does the Bible’s history tell us really happened to create those fossils?
- Why is it so hard for people to believe the Bible until they see evidence that proves it?
- What are some simple questions that you could ask your friends to get them thinking critically about the fossil record’s implications for creation?

Join the Conversation

- **Does the fossil record illustrate evolution?**
 - Evolution says:
 - When you look at fossils buried in each layer, you get a picture of how life evolved — from the simplest organisms buried in the deepest layers to more complex, and more recent, organisms like dinosaurs in middle and upper layers.
 - This burial process was slow and gradual.
 - Since change would have happened gradually, there should be transitional forms of “missing links” like *Archaeopteryx* (an alleged dino-bird.)
 - Creation says:
 - Well-preserved marine invertebrates are in the middle of Colorado and are scattered throughout the world’s sedimentary layers. This evidences a massive mudflow, the instant burial of creatures, and rapid wholesale devastation and death worldwide.
 - Great diversity of animals in the fossil record with little decay indicates a rapid burial.

- No undisputed transitional forms or missing links have been found. *Archaeopteryx* was a bird with no transitional features: it was not a dinosaur at all. Plus, other bird fossils have been found in layers far below the ones in which *Archaeopteryx* was found. In actuality, we find fully formed prolific life in the layers deposited around the world, that further shows how the fossil record goes from very few fossils (in lower, pre-Flood rocks) to all of the animal phyla (in Cambrian rocks) with no transitional forms in between.
- **Are there gaps in the earth's strata?**
 - Evolution says:
 - These gaps are called “unconformities” and represent missing layers of geologic “time.” Either the layers were never deposited or were eroded away.
 - Supposedly, that is also where the “missing links” or transitional forms have gone.
 - Some scientists say that these evolutionary leaps could have happened so rapidly—at least in evolutionary time — that there wasn't a chance for any transitional fossils to form.
 - Creation says:
 - Unconformities' missing time sequences never occurred. Instead, the erosion and deposition resulted largely from Noah's flood. Plus, the discovery of soft tissue fossils challenges and shortens the evolutionary timescale.
 - Secular scientists admit that “relevant fossils are still comparatively rare” and that “most transitions have to be documented in detail” (Lu, J. et al. 2009. Evidence for modular evolution in a long-tailed pterosaur with a pterodactyloid skull. *Proceedings of the Royal Society B*.277 (1680):383-389).
 - There are no missing layers — just evidence of a global flood. When the fossil layers are understood as Flood deposits, the problem of supposed gaps in time vanishes. There is an account that matches the evidence that we see here, and it comes from Genesis 7:19, 21.

Flood or Fiction?

Central Verses

2 Peter 3:3-6

Key Points

- Both secular and creation scientists agree that there has been major, catastrophic flooding in Earth's past.
- Stories of a great flood that wiped out all but a small group of people are found in ancient texts and folklore around the world.
- Uniformitarianism says: Processes such as erosion and deposition that we observe today operated in the same way in the remote geological past.
- Catastrophism says: Geographical features of our planet are the consequences of a key catastrophic event — a violent, destructive flood and its aftereffects.
- Secular scientists don't believe that there was a worldwide flood or that natural processes ever change because this would undermine the basis for many of their theories.
- Secular and creation scientists agree that floodwaters could not have risen high enough to cover today's mountains. The mountains were smaller before the Flood and were uplifted to their current height by the collision of the continental plates during the Flood.
- Both secular and creation scientists generally agree that the continents were once part of a large supercontinent. At some point, this huge continent broke apart into the continents that are located where we find them today.
- The worldwide Flood created the perfect conditions for the Ice Age.
- In 2 Peter 3, the Bible tells us why we should take the Flood history seriously.
- Noah represents a theme and pattern of what the Lord Jesus Christ did for us.

Think About It

- What is the meaning of the saying "the present is the key to the past?"
- Describe the different views of the Flood held by secular and creation scientists.
- What key components of the Flood made it much more destructive than just heavy rainfall?
- What is the significance of the 1980 Mount St. Helens eruption?
- How can Noah and the details of his history connect to Jesus and everything that He has done for us?
- It takes courage to go against popular opinion and stand firm in your faith like Noah. What are some ways in which you can use scientific evidence and the Bible to share Earth's history in a way that can be heard?

Join the Conversation

- **Uniformitarianism or catastrophism?**
 - Evolution says: Uniformitarianism says that processes like erosion and deposition that exist today have always functioned in the same way in the remote geological past "The present is the *key* to the past."
 - This concept underlies the belief that our world is billions of years old. Secular scientists believe that a single layer of the geological strata represents a significant amount of time — even millions of years — of Earth's geological activity.
 - Secular scientists acknowledge that there have been changes to the landscape over "millions of years," but they maintain that the changes have been gradual, and slow, and that they happened at a fairly constant rate.
 - If you apply the uniformitarian point of view to biology, you get the theory of evolution.
 - Uniformitarians say Noah's Flood never happened.

- Creation says: Creation scientists do not assume that all processes in the past happened in the same way and at basically the same rates as today; i.e. the past was very *different* than from what we see today.
 - Between what we see now and what we would have seen then, there's been a world-altering catastrophe that caused geological formations as in the Grand Canyon.
 - Creation scientists found evidence that forces from a single, watery, catastrophic event altered Earth's geology and climate in a very short time.
 - Catastrophism lines up with the historical facts recorded in the Bible.
 - Biblical catastrophists say that Noah's Flood happened.
- **Both secular and creation scientists generally agree that the continents were once part of a large supercontinent that at some point broke apart into the continents that we find today.**
 - Evolution says:
 - The separation of the continents was slow and gradual, with movement at the rate of centimeters per year.
 - Creation says:
 - The catastrophic plate tectonics model is characterized by rapid floodwaters draining into today's oceans and "runaway subduction" of crustal plates deep beneath Earth's surface that contributed to swiftly separating continents. For a time during the Flood, plates moved at the rate of meters per second.

How Old is Earth?

Central Verses

Exodus 20:11

Exodus 31:16-17

Genesis 1:4-5

Genesis 11:8

Key Points

- All scientists work with the same data or “evidence” — the same chemical, biological, and physical clues.
- Geochronology: Science concerned with the ordering and dating of events in the Earth’s history, including the age of the Earth itself.
- Natural clocks share three assumptions:
 - A constant process rate,
 - A closed system (outside materials or energies do not enter and materials or energies from inside the system do not leave)
 - A known initial process component (knowledge of how much of each component existed when the process began).
 - Radioisotope dating and dating by fossil correlations are methods scientists use to measure the age of the earth, but neither of these is reliable.
 - Secular scientists say with great confidence that rocks in the Grand Canyon are millions to billions of years old based on methods that use radioactive elements and lab measurements of how fast these elements change into other elements. They assume that the rate at which this change takes place has been constant ever since the earth came into existence. Powerful evidence actually shows that the transformation rate has not been constant throughout the earth’s past. This means that the dating methods that give ages of millions and billions of years are incorrect by huge factors and that our planet is much younger than secular scientists claim.
 - Carbon-14 found in fossils and Earth materials that are supposed to be millions, tens of millions, and even hundreds of millions of years old implies that all of the fossils in the rocks are only thousands of years old. This is another powerful independent line of evidence that these fossil-bearing sediment layers are indeed the result of a global cataclysm that only occurred a few thousand years ago — the Flood described in Genesis.
 - The Bible tells us that our world was created in six days (Exodus 20:11), and historical evidence supports this biblical timeline.
 - It’s important to know that the evidence supports the Bible’s timeline. If the Bible was wrong or misleading about time in its very first chapters, the accuracy of the whole book can be questioned.

Think About It

- Describe how faith plays a part in both the scientific and biblical evidence for Earth’s age.
- Come up with simple examples of the three assumptions that the clocks used by scientists share.
- What are some common dating methods most scientists use?
- What are some popular assumptions made about the Grand Canyon, and how do those fall short of the actual scientific evidence?
- Why is it so important to understand how the evidence supports the Bible’s creation account as literal?

Join the Conversation

- **Radioisotope dating (radioactive elements)**

- Evolution says:
 - Age-date conclusions are based on methods that use radioactive elements and present-day lab measurements of how fast these elements change into other elements. Uranium is a commonly used radioactive element that slowly decays into lead and helium. Secular scientists assume that this change rate has been constant ever since the earth came into existence — the uniformitarian view.
- Creation says:
 - Compelling evidence has been found that the uranium-lead change rate was dramatically higher in the past — by a factor of a billion or more — than it is today. For example, rock crystals still retain most of the helium from decaying uranium-helium which should have escaped millions of years ago. Uranium decay has not been constant. This undermines the results based on assumptions that past transformation rates have been constant, that give ages of hundreds of millions of years. Grand Canyon rocks are not hundreds of millions of years old but are only a few thousand years old.

- **Carbon-14 Dating**

After a plant or animal dies, the carbon-14 in its cells decays into nitrogen, while the carbon-12 and a tiny amount of carbon-13 remain. The amount of carbon-14 left as compared to the total amount of carbon in a deceased organism will yield a calculated time since the organism stopped absorbing carbon-14.

- Evolution says:
 - Carbon-14 found in most fossils must be a contaminant.
- Creation says:
 - Because of its faster decay rate and thus shorter shelf-life, finding carbon-14 in fossils, coal, oil, natural gas, and diamonds demands dates of thousands, not billions, of years.
 - In the past 30 years, the secular scientific community has found that significant, measurable, and reproducible amounts of carbon-14 are routinely found in Earth materials that are supposed to be millions, tens of millions, and even hundreds of millions of years old! But carbon-14 transforms into ordinary nitrogen extremely quickly compared with those timescales, so quickly that any formerly living thing older than 100,000 years should have no detectable carbon-14 at all.

- **Was the Grand Canyon carved by the Colorado River over millions of years?**

- Evolution says:
 - The process was slow and gradual.
 - The idea that canyons formed over millions of years is based on interpretations of the types of rocks and fossils found in their layers.
- Creation says:
 - The Grand Canyon was formed rapidly.
 - The idea that sediment layers can form quickly and be carved quickly was documented in a dramatic way with the eruption events of Mount St. Helens.

Dinosaurs!

Central Verses

- Job 40: 15-17
- Romans 5:12
- 2 Peter 3:13
- Revelation 21:4

Key Points

- Evolutionists say that the Age of Dinosaurs began about 225 million years ago — long before man — and ended in a mass extinction around 65 million years ago.
- The prevailing scientific theory is that an asteroid hit the earth and changed the climate and food supply, causing the dinosaurs' extinction.
- For the evolutionary scientist, dinosaurs are proof that the earth is hundreds of millions of years old.
- Because of scavengers and bacteria, not everything that dies becomes a fossil.
- The fossilization process occurs like this:
 - Rapidly buried bodies may become compressed in sediment
 - Minerals then may seep into the bodies, changing their chemical composition
 - Eventually the fossil is exposed on Earth's surface by erosion
 - If the fossil is not spotted and excavated quickly, it will weather away
- One way to date fossils is to examine the ratio of potassium to argon gases in volcanic ash around them. However, the original ratios and the assumption of a constant decay rate are hard to prove, and we presently have no way to verify this method using other means.
- According to Genesis, God created the earth, man, and all living creatures in the six days of creation. Dinosaur fossil evidence supports this.
- We can look at the history of dinosaurs through the "5 Cs":
 - Created – Dinosaur pelvic structure is more consistent with design than with a slow evolution. There's definite evidence of divine creation in the way that these bones fit together.
 - Catastrophe – Everyone agrees that the dinosaurs which we find in the rock strata were killed off suddenly by some kind of catastrophe.
 - Carbon – Carbon dating only works when there is organic matter present and the samples are less than 100,000 years old, but dinosaur bones have datable carbon.
 - Collagen – There shouldn't be any organic materials in fossils, but scientists found soft tissue, including original collagen, in a Montana tyrannosaur and hadrosaur and a Chinese sauropod, all supposedly tens of millions of years old.
 - Clashes – Historical evidence indicates that humans actually encountered dinosaurs.
- Historical science becomes a matter of faith, much like believing the Bible is a matter of faith. You can follow the scientific evidence and find that it conforms to the Bible.

Think About It

- What are some common misconceptions about dinosaurs?
- Talk through the fossilization processes.
- What is the significance of soft tissue finds in dinosaur fossils?
- Give the main anatomy-based example that debunks the idea that dinosaurs evolved into modern reptiles.
- How could confusion about when dinosaurs lived create problems with understanding and trusting the Bible.

Join the Conversation

- **The Age of Dinosaurs**

- Evolution says:
 - This was part of the Mesozoic Era, beginning about 225 million years ago and ending in mass extinction at the end of the Cretaceous Period around 65 million years ago.
 - Dinosaurs lived and died before man ever existed.
 - Dinosaurs' skeletal similarities are evidence of evolution and of a common ancestor.
- Creation says:
 - According to Genesis, God created the earth, man, and all living creatures in the six days of creation; this would include dinosaurs.
 - Many historical records indicate that man had clashes with dinosaurs even after the Flood.
 - The skeletal structure of modern reptiles compared to that of dinosaurs shows that each was uniquely designed.
 - Scientists have described dozens of soft tissue fossils, all assigned million-year ages. These discoveries raise serious questions about the actual age of fossils, discredit evolution, and point to creation.

- **Extinction of Dinosaurs**

- Evolution says:
 - Dinosaurs became extinct due to an asteroid hitting the earth and changing the climate and food supply. Secular scientists believe that strata containing dinosaur fossils were caused by local floods and other small catastrophes separated by millions of years.
- Creation says:
 - We find dinosaurs in layer upon layer of rocks deposited by water over every continent of the world because they were rapidly buried in the year-long global Flood.

- **Argon dating and the Morrison Formation fossils**

- Evolution says:
 - This dating system is reliable because its results fit the expectations of geologists based on the geologic column diagram.
- Creation says:
 - The original ratios of potassium and argon and a constant decay rate are hard to prove, and we currently have no way to verify this method using other means. Argon "ages" are always too high when applied to recently formed rocks of known age, showing that this system does not work.

The Ice Age

Central Verses

- Genesis 8:21
- Genesis 9:1
- Genesis 9:13

Key Points

- Uniformitarians believe multiple ice ages were caused by low-energy processes occurring over very long periods of time.
- Creation scientists believe that the evidence shows that a single ice age was caused by high-energy processes occurring in a short time period.
- To arrive at ice-age theories, scientists study glaciers, glacial moraines, and ice cores, among other evidence.
- A common misconception is that colder winters are the catalyst for an ice age, but extremely cold temperatures generally result in less, not more, snowfall. Cold air has less moisture, and less moisture means less snow.
- The acronym HEAT is an easy way to remember what creates an ice age:
 - Hot oceans,
 - Evaporation,
 - Aerosols, and
 - Time (less than you'd think).
- Real, modern catastrophes support the idea that Noah's Flood was catastrophic enough to start a worldwide change in climate great enough to cause the Ice Age.
- The Ice Age would not have been equally severe everywhere, so there were likely some places where the climate was temperate, allowing humans and animals to survive.
- Secular and creation scientists agree that glaciation during the Ice Age caused the sea levels to drop, exposing land bridges that men and animals could cross between continents. As ice sheets expanded, they forced humans and animals to migrate to warmer latitudes in order to survive.
- The Flood's destruction and changes in Earth's atmosphere were followed by God's promise to never again destroy the earth with a worldwide flood.
- The conventional view is that our climate is very fragile and that pollution from man could upset the balance and send us into another ice age. In reality, much of the fluctuation may simply be due to natural causes and effects.

Think About It

- What are some beliefs about the Ice Age?
- What are the main differences between what creation scientists and secular scientists believe about the Ice Age?
- Talk through the climatic conditions and processes that led to creating the Ice Age.
- What are some modern-day examples of the catastrophic conditions that probably created the Ice Age?
- Talk through some of the problems with dating the Ice Age — for example, “counting” the layers in ice cores.
- How would you explain to a friend why it was possible for humans to live through the Ice Age?

Join the Conversation

- **How many ice ages were there?**
 - Evolution says:
 - There were multiple ice ages.
 - These ice ages were caused by gradual processes occurring over millions of years.
 - Creation says:
 - There is a convincing geological evidence for only one ice age.
 - The Ice Age was caused by high-energy processes occurring quickly and lasting for only a few hundred years — the result of a worldwide catastrophe.
 - This timescale lines up with the biblical timescale.
- **True or false: Counting ice cores provides reliable ice-age data.**
 - Evolution says:
 - True. Each layer of an ice core represents one year.
 - By this measure, the Greenland and Antarctic ice sheets are a few hundred thousand years old.
 - Creation says:
 - False. Only upper ice layers look like annual deposits.
 - At greater depths, layers become convoluted and so thin that you can't see them.
 - Also, single storms or even storm surges can deposit layers that look like annual deposits but aren't.
 - Scientists rely on flow models to count layers, but those models have built-in assumptions of million-years histories.
 - It doesn't take millions of years for thick glaciers to form. Crater Glacier on Mount St. Helens has grown to over 300 feet thick just since 1980.
- **The Astronomical Theory**
 - Evolution says:
 - As the earth orbits the sun, its rotational axis, the orientation of that axis, and Earth's orbital shape change slowly over time. This subtly changes the amount of sunlight falling in mid-to-high northern latitudes during the summer, regulating the size of ice sheets.
 - Creation says:
 - These tiny shifts are far too subtle to explain an ice age.
 - The great Flood created perfect ice-age conditions through storms, volcanism, earthquakes, shifting of Earth's tectonic plates, heated oceans, and evaporation.
 - Secular and creation scientists agree that warming oceans contribute to changing weather patterns.
 - Creation scientists are using computer modeling to confirm that Noah's Flood could have caused the Ice Age — with promising results.

Rise of Civilization

Central Verses

- Genesis 9:18-19
- Genesis 10:5
- Genesis 10:32
- Acts 17:26

Key Points

- Since the 1920s, scientists have uncovered numerous fossils that they believe are ancestors of modern humans, missing links to man's evolution from primates.
- The Out of Africa Theory says that *Homo sapiens* originated in Africa about 200,000 years ago. Researchers claim that the proof is in the human genome — a common matrilineal ancestor called Mitochondrial Eve and a common paternal ancestor called Y-chromosome Adam.
- Evidence supports the idea of common human ancestors, and creationists find remarkable genetic evidence supporting a real Adam and Eve.
- Secular scientists say that race resulted from global human migration out of Africa and that 40,000-50,000 years ago man took a “great leap forward” and developed language.
- The Bible describes the development of different languages, not as a gradual result of migration, but as God's punishment of man's arrogance at the Tower of Babel.
- Isolation by geography and language led groups to develop different cultures. For a few short years after the Tower of Babel, people had to rebuild and lived in “survival communities.” Secular scientists consider this the cavemen era, but, regardless of where people found shelter, this doesn't mean that they were less human than we are.
- Race is not a biblical but an evolutionary concept that dangerously suggests that some groups are more advanced than others.

Think About It

- How would the idea that humans are basically evolved animals influence the way in which we think about each other?
- Compare the basic evolutionary story of human development to the creation account.
- Is it true that all humans can be traced to common ancestors? Discuss how different worldviews might answer this question. Which view gives humans more worth?
- What are the differing views on how human languages came to be?
- Name some significant archaeological proofs that confirm the Bible's history.
- The Bible emphasizes that we are one race. Evolution emphasizes the development of our “differences.” Why is this contrast important?

Join the Conversation

- **The origin of ancient civilizations**

- Evolution says:
 - Humans and apes shared a common ancestor millions of years ago.
 - The first anatomically modern human, *Homo sapiens*, originated in Africa about 200,000 years ago.
 - Humans can be traced to a common matrilineal ancestor population nicknamed Mitochondrial Eve and a common father population, called Y-chromosome Adam.
- Creation says:
 - We all descended from Adam and Eve and Noah's sons and their wives.
 - Bible dates for the Flood at 2400 B.C. and the dispersion at the Tower of Babel at 2200 B.C. line up with historically known ancient civilization age ranges.
 - Our "common ancestors" were Adam and Eve. The genetic lineages don't have to tie to populations but to these literal individuals, reinforcing the Bible's accuracy.

- **How humans migrated to other continents and became "advanced"**

- Evolution says:
 - Humans migrated out of Africa partly due to changes in climate and food supply.
 - Man's global dispersal led to more genetic diversity and the development of races.
 - Symbolic and written language developed 40,000-50,000 years ago.
- Creation says:
 - The earth was repopulated by Noah and his descendants.
 - Shem's descendants inhabited the Middle East. Ham's descendants populated Africa and Asia, and Japheth's descendants settled in Europe. Today, we observe that people from these world regions have different physical features.
 - Disbursement of languages resulted from man's arrogance at the Tower of Babel.

- **The "Founder Principle"**

- Evolution says:
 - The enforced segregation of mankind into small, inbreeding tribal units would have generated a rapid development of distinctive physical characteristics associated with each tribe. Genetic and geographic isolation also led to each tribe developing its own culture, tools, and ways of life.
 - The caveman era saw primitive pre-humans evolving languages and cultures.
- Creation says:
 - The Tower of Babel was followed by a short time of primitive living when tribes gathered in "survival communities." Distinctive physical characteristics arose due to isolation of families after the dispersion.
 - Archaeological evidence of "cavemen" continually shows their sophisticated cultures.
 - Some cultures used pre-Babel knowledge to quickly develop new civilizations.

Origin of the Universe

Central Verses:

- Genesis 1:1
- Genesis 8:22
- Isaiah 40:26
- Psalm 74:16
- James 1:17

Key Points

- Science deals only with the observable present. We cannot scientifically test something that happened in the past.
- Isaac Newton's studies of gravity and mechanics became the foundation for how we understand the physical processes of the universe.
- The Big Bang theory says that the universe came into existence 13.8 billion years ago with a massive explosion.
- The most powerful natural phenomena that we observe today leave behind destruction and disorder, but our universe shows exquisite order and precision that point to divine creation.
- Secular and creation scientists agree about the laws of physics and mathematics.
- The stability of natural processes described by the laws of physics is reinforced by the Bible. It teaches that God upholds the universe in a consistent and orderly way for our benefit.
- Secular scientists have never explained the first source of energy that created the universe or supposedly caused the Big Bang.
- Genesis describes how, on Day One of creation, God created space, time, matter, and energy — all integral components of our world that can be described by natural laws.
- The Law of Entropy shows us that the universe can't be eternally old — all of the energy in it would have transferred to a useless state by now. It had to have a beginning.
- The first cause of all things is the God of the universe — all-knowing and all-powerful.

Think About It

- What are the main laws of physics that are used to illustrate the order and design that hold our universe together, and what phenomena do they describe?
- What was the significance of Lemaitre's and Hubble's theories in the 1920s?
- Summarize the Big Bang theory and its main claim of having scientific evidence that supports it.
- What are some things in the solar system that challenge the age of the earth according to the Big Bang theory?
- How does the Bible reinforce the stability of certain natural processes in its record?
- Why does the age of the origin of the universe matter for us in our everyday lives?
- How would you explain to someone that God is the "First Cause" and what the bigger implications of this truth are?

Join the Conversation

- **The Big Bang theory**

- Evolution says:
 - The universe came into existence 13.8 billion years ago with a massive explosion.
 - At first, the universe was a hot, formless soup made up of elementary particles. As it all expanded and cooled, structures began to develop: neutrons and protons, atomic nuclei, atoms, stars, galaxies, and clusters of galaxies.
 - As the universe cooled after the primeval explosion, low-energy background radiation called *cosmic microwave background radiation* (CMB) remained. Secular scientists theorize that it is left over from about 400,000 years after the Big Bang. The model predicted that the temperature of this radiation would be evenly distributed on a large scale.
- Creation says:
 - Genesis describes how God created space, time, matter, and energy on Day One of creation.
 - The most powerful natural phenomena that we can observe today — events like tornadoes and hurricanes — leave behind destruction and disorder. Natural processes tend to disorganize, not organize, matter. We see a decaying creation, not an evolving universe.
 - Evidence indicates that the universe is much younger than the Big Bang requires.
 - Comets lose mass with each orbit around the sun. If the solar system is really billions of years old, these comets should no longer exist.
 - Blue stars burn so brightly that they should have burned out long ago if the universe is actually billions of years old. Secular scientists assume that new blue stars are being formed, but this has never been observed.
 - Spiral galaxies' centers rotate faster than their arms. If these were billions of years old, they would have blended into dish-shaped galaxies by now, and their spiral arms would be twisted beyond recognition.
 - Secular scientists have never explained the first source of energy that created the universe or supposedly caused the Big Bang.
- Many secular scientists now acknowledge problems with the theory.
- Although the CMB is supposed to be nearly the same temperature in every direction, the hot and cold spots are not evenly distributed as would be expected from the Big Bang origins. Improved measurements of this radiation may actually challenge the Big Bang rather than confirm it.

Uniqueness of Earth

Central Verses

- Job 26:7
- Isaiah 40:22
- Isaiah 45:18
- Genesis 1:16
- Genesis 1:9-10
- Genesis 1:20-21

Key Points

- Secular and creation scientists agree that the universe holds many galaxies with many suns, stars, and planets.
- There are eight planets in the solar system. The four closest to the sun are called the terrestrial planets: Mercury, Venus, Earth, and Mars. The four farthest from the sun are called the gas giants: Jupiter, Saturn, Uranus, and Neptune. Pluto recently lost its planet status and is now classified as a dwarf planet.
- The Big Bang theory assumes that there are no special places in the universe and that everything around us is the result of a cosmic accident, with no planning or purpose.
- Secular scientists estimate, using information gathered by the Hubble Space Telescope, that one in every 200 visible stars may have a planet with conditions necessary for life.
- Earth is the only planet in our solar system capable of sustaining life as we know it.
- Evidence of other planets capable of sustaining life is wishful thinking by scientists — no hard evidence for this exists.
- Secular scientists believe that everything arose from random processes in primeval chaos, but the evidence supports the Bible when it says that Earth was designed for man.
- When God spent five days of creation working on it and one day for everything else, He emphasized the uniqueness of Earth.

Think About It

- What are some things that secular scientists use as evidence to suggest that there is life on other planets?
- What are some things that make Earth uniquely suited for life?
- Which Biblical evidences show that the earth is unique and the sole source of life in the universe?
- What can we conclude from the fact that God spent five days creating Earth versus only one day on everything else?
- If, as Carl Sagan said, “we live on an insignificant planet of a humdrum star, lost in a galaxy,” what does that say about our individuality, our relationships, and our life purpose?

Join the Conversation

- **One of every 200 visible stars may have a planet with conditions necessary for life; Kepler-22b is a possible planet in the habitable “Goldilocks zone.”**
 - Evolution says:
 - Its not known whether Kepler-22b has a predominantly rock, gaseous, or liquid composition, but it might be just right for life because of its location.
 - Secular scientists believe Kepler-22b and everything else in the universe arose from random processes in primeval chaos.
 - Creation says:
 - There is no observational, experimental evidence that any planet other than Earth is even remotely capable of sustaining life.
 - There are multiple physical evidences of why Earth is optimized for life.
 - **The sun.** It’s stable. It goes through an 11-year activity cycle. But the highs and lows of the cycle do not negatively impact life on earth.
 - **Orbital distance.** Our planet orbits the sun at an average distance of 93 million miles. Our orbit is fairly circular, so that distance never changes in any significant way. We’re at the right spot for water to exist in the liquid state. This is a requirement for the chemistry of life to interact inside cells. If Earth’s orbit were as extreme as many of the planets that we’ve found outside our solar system, the oceans would boil at the closest point to the sun and freeze at the farthest.
 - **The atmosphere.** It maintains thermal equilibrium suitable for life and protects us from space debris. Light energy from the sun warms the earth’s surface, which in turn warms the air close to the surface. This less-dense air rises, helping to maintain a temperature at which life can exist. The movement of rising air creates wind currents. These carry carbon dioxide from areas that produce it to areas that need it.
 - **The size and position of the moon.** If it were larger or nearer to Earth, huge tides would overflow the lowlands and erode mountain ranges.
 - **Earth’s tilt.** Tilted on its axis 23.4 degrees relative to its orbit around the sun, it’s perfect for sustaining life. If it were tilted less, the habitable regions would be reduced. And if the tilt were greater, seasons would become too extreme.
 - **Earth’s electromagnetic field.** This field is not so strong that it disrupts life’s vital chemistry or so weak that it permits destructive solar particles to enter the atmosphere.
 - Although it appears to orbit within a “Goldilocks zone” that permits liquid water, Kepler-22b would still need an Earth-like rotation and water. None of these are confirmed.

Science and Scripture

Central Verses

- Evolution sees nature as the “creator” that was helped over millions of years by improbable circumstances to create complex life and natural processes that formed today’s world. Death is just an end, and life has no meaning.
- Christians look at nature’s complexity and see a world which God designed with order and purpose. Death exists, not because nature or God is cruel, but because it entered the perfect world when Adam and Eve sinned. God offers grace to handle life’s difficulties and a way out — salvation.
- When dinosaurs lived is a key question of the Bible’s accuracy. If dinosaurs lived and died *before* humans existed, death could not be a consequence of sin because it would have come *before* sin (Romans 5:12). What Genesis records would be false, and redemption through Jesus Christ our Savior would be just a myth.
- Historical evidence for the Tower of Babel confirms Acts 17:26 “He has made from one blood every nation...and has determined...the boundaries of their dwellings.”
- No one can explain how even a hypothetical Big Bang could have occurred without a supernatural force. No known laws in the universe can make something out of nothing. God the Creator is the only explanation. Genesis 1:16 confirms this: “Then God made two great lights; the greater light to rule the day, and the lesser light to rule the night.”
- Nothing we can observe about Earth contradicts the psalmist who said, “The heaven, even the heavens, are the Lord’s; But the earth He has given to the children of men.” The Bible is clear that humans were made in God’s image to be caretakers of the earth.
- Some think that God didn’t measure creation days in 24 literal hours. But in Genesis and elsewhere, when God refers to creation, He defines a day with a 24-hour timeframe, which ultimately indicates that the earth is about 6,000 years old. As Jesus said in John 3:12, “If I have told you earthly things and you do not believe, how will you believe if I tell you heavenly things?”
- In Romans 1:20, Paul noted that God’s “invisible attributes...even His eternal power and Godhead” are clearly seen, being understood by the things that are made.” The evidence for God as Creator is readily available. Anyone can witness God’s glory by looking up at the stars. Yet, Peter warned us that scoffers “willfully forget” the evidence in front of them (2 Peter 3:5).
- Evolution and the Big Bang come from a naturalistic worldview that has become dominant in the last 200 years. This worldview exalts nature and man and attempts to explain the existence of everything without God, affecting both morality and society.

Think About It

- You’ve seen the evidence from both sides — creation and evolution. Which one presents the stronger argument? Which side presents the more popular argument? Why?
- How would you explain to someone where they can find that place where “faith and science” meet? What if science and faith revealed the same truth?
- What is the strongest proof that you could use to show someone that the Bible and science do not conflict today?
- Economic and social theorist Jeremy Rifkin said, “We no longer feel ourselves to be guests in someone else’s home and therefore obligated to make our behavior conform with a set of pre-existing cosmic rules. It is our creation now. We make the rules” (Rifkin, J. 1983. *Algeny*. New York: Viking Press, 298). How would believing this shape someone’s worldview — how they act, live, think of others, and see their individual purpose?
- Nothing that we can observe about Earth contradicts the psalmist who said, “The heaven, even the heavens, are the Lord’s; But the earth He has given to the children of men” (Psalm 115:16). If you believe this, how does it impact your life?

Join the Conversation

- **The accuracy of Scripture**
 - Evolution says:
 - The Bible is fanciful.
 - Creation says:
 - History and archaeology confirm the biblical account.
- **The origin of life and man**
 - Evolution says:
 - Life resulted from random change; man evolved from a simple-cell life form and shares a common ancestor with chimpanzees.
 - Creation says:
 - Life was purposefully created by God; man was created by God, in His image, and the data show that humans and chimps aren't as similar as has been reported.
- **The fossil record**
 - Evolution says:
 - Transitional forms are missing because they weren't fossilized.
 - Creation says:
 - There are no undisputed transitional forms. The fossil record shows fully formed creatures, each according to its kind just as Genesis says.
- **Noah's flood**
 - Evolution says:
 - The Flood never happened. Earth's landscape has changed gradually, slowly, and at a fairly constant rate.
 - Creation says:
 - The Flood caused a wholesale makeover of Earth's geology and climate.
- **Age of the earth and dinosaurs**
 - Evolution says:
 - Earth is billions of years old. Dinosaurs went extinct before man lived.
 - Creation says:
 - Earth is about 6,000 years old. Dinosaurs lived at the same time as man.
- **The Ice Age**
 - Evolution says:
 - Many ice ages were caused by slow processes over millions of years.
 - Creation says:
 - Just one ice age developed rapidly and only lasted for hundreds of years.
- **Ancient civilization**
 - Evolution says:
 - Humans and apes evolved from a common ancestor millions of years ago. Over time and due to migration, the many different races and nations formed.
 - Creation says:
 - All humanity descended from Noah's sons and their wives under 5,000 years ago. Geographic isolation after the Tower of Babel ultimately led to different ethnic groups.
- **The origin of the universe and Earth's uniqueness**
 - Evolution says:
 - The universe exploded from a dot of energy some 13 billion years ago.
 - Creation says:
 - God created Earth 6,000 years ago as the only planet suitable for life.