

The Attackers: Principles on Origins: Genesis Record on Creation: Mathematics plus Supernaturalism equals the Universe, Gen 1:1*a*; Earth Is Unique & Exceptional, Gen 1:1*b*; Swenson on the Intricate Balance of the Universe Designed to Harbor Life; the Anthropic Principle; the Imperative of Carbon to Sustain Life; the Angelic Revolution & Aftermath

Conclusion:

1. The Bible is not a scientific textbook. However, it is evident from the passages we have studied, that Jesus Christ can be classified from a human frame of reference as a Scientist.
2. Genesis clearly describes the processes He utilized in the creation of the universe, especially when compared to other relevant passages.
3. He combined what we regard as sophisticated levels of mathematics in the creation combined with what we perceive as supernatural powers.
4. God's essence includes such attributes as omniscience, omnipotence, and immutability. He has the knowhow to do what He pleases, the power to bring it into being, and the immutability to perpetuate its order and arrangement.
5. His perfection logically requires that all He does is perfect without fault or defect in its organization and function, not *tohu wabohu*.
6. Genesis 1:1 is not vague in its proclamation that God created the universe, it occurred instantaneously, and where nothing previously existed suddenly all thing existed: matter, energy, and the space-time continuum.
7. The word *bara'* informs us that God used no preexisting materials in the creative act but rather commanded the universe into existence, perfectly described by the Latin term, *creatio ex nihilo*:

8. *Creatio* (creation) is described as *ex nihilo*: *ex-* a preposition that means “from,” and *nihilo* which is the noun “nothing”: creation from nothing. This denies any role in creation by the materials from which the universe is made.
9. In Genesis 1:1 we are informed that the original, instantaneous creation also included Earth and for Earth to be habitable it had to be in its host star’s habitable zone.
10. This demands, according to the Copernicus’s heliocentric solar system, that Earth revolve around the Sun and for the system to be balanced according to general relativity there must be other planets also rotating around the Sun.
11. According to the Copernican Principle and common sense, our solar system is in one of many galaxies that populate the universe.
12. From this, Cosmologists conclude mediocrity, but logic demands reason and purpose. In Genesis 1:1 the planet mentioned is Earth which makes it exceptional and all others ordinary.
13. What makes Earth exceptional is that it is the unique planet in the universe. Its original perfection plus several critical and extremely precise “coincidences” amplify the claim.
14. There are forces in the universe and arrangements in the solar system that make it possible for life to exist on Earth:

Each bit of matter in the universe is influenced by four forces—no more, no less. The four ... are the gravitational force, the electromagnetic force, the weak nuclear force, and the strong nuclear force. Each of these forces works with different strengths on different particles over vastly different distances. Yet if even a small change in the strength of one of these forces with respect to another were to occur, life as we know it would not be possible. Of the four, the strong nuclear force is the most powerful, and gravity is by far the weakest. (p. 113)

Gravity is the most familiar of the four forces and the first to be investigated scientifically. Even though it is the weakest of the four, it is nevertheless of massive importance because it controls the balance of power in the entire macroscopic universe. While the two nuclear forces exert their influence only within the tiny confines of the atom itself, the gravitational force extends to infinity. Gravity is, in fact, the dominant force of the universe at distances greater than the size of molecules. (p. 114)

Electromagnetism is the other relatively familiar force. It provides electricity to power our technology and sparks lightning strikes during thunderstorms. It plays an essential role in human physiology—in cellular functioning, the bonding together of bones, the contraction of muscles, and even the testing of cardiac health by electrocardiogram. Electromagnetism is also the force involved with the orbiting of electrons, the charges of particles, and the binding together of molecules and chemical compounds. The streaming of photons and the photoelectric nature of light owe their existence to the same process. (p. 115)

Electromagnetism exceeds the power of gravity by more than a billion trillion quadrillion times. Yet the two forces are—and *must* be—precisely balanced for life to exist in our universe. A deviation by even 1 part in 10^{40} would spell catastrophe for both human life and stellar existence.

The weak nuclear force is, in some ways, more like an interaction than a force. It has a very limited range, essentially active only within the atom. Thus it is called a “contact force.” It is the force responsible for the radioactive decay of elements like uranium.

The strong nuclear force—another contact force—has an exceptionally short range of effectiveness extending only over a few subatomic particles. Yet it is incredibly powerful. It is the force that keeps the nucleus of the atom together. The nucleus, packed with protons all having a positive charge, would naturally want to repel each other.

That such repellent outward explosion does not happen is a tribute to the power of the strong nuclear force, which is about a hundred times stronger than the repelling electromagnetic force.

Any scientist formulating an overarching unification of these forces would be faint with hysteria. To discover unification of the grand unified theory (GUT) or the theory of everything (TOE) would bring worldwide fame and assure a Nobel Prize. (p. 116)

The Planets. Circling the sun in orderly fashion is a diverse array of planets, moons, asteroids, and dust. All planetary orbits except Pluto’s are essentially flat with respect to each other, within seven degrees.

Earth, the “blue planet” moves in orbit at seventy-two thousand miles per hour in order to complete its annual circle around the sun. A change in distance from the sun by a mere 2 percent would void our planet of life.¹ Earth’s magnetic field shields us from dangerous radiation, as most of the sun’s charged atomic particles are deflected around the earth. If the moon did not exist, neither would we. The earth would rotate three times faster, subjecting us to continuous gale force winds. In addition, without the moon, the earth’s axis would be catastrophically influenced by Jupiter’s gravitational pull.² (p. 150)

Jupiter is by far the largest of the planets. It is so immense that over one thousand Earths could be placed inside it. Most interesting is the protection Jupiter affords planet Earth. Were Jupiter not positioned precisely so, comets would strike our planet a thousand times more frequently than they do.^{3,4} (p. 151)

15. Not only is the solar system critical to life on Earth, there is evidence that the structure of the universe is so designed to sustain life on Earth:

Evidence is accumulating that the entire universe is so constructed as to support life. Even though biological life exists only on Earth, so far as any scientific evidence is concerned, it would not even exist on Earth if the large-scale structure of the cosmos were significantly different.⁵

16. This idea is called the Anthropic Principle whose definition contends that:

The universe must have properties that make inevitable the existence of intelligent life.⁶

17. In 1952 British astronomer Fred Hoyle used anthropic reasoning to predict the structure of the carbon nucleus. This is very technical but is important to grasp since our very existence depends on the accuracy of his prediction:

¹ Hugh Ross, *The Creator and the Cosmos: How the Greatest Scientific Discoveries of the Century Reveal God* (Colorado Springs, CO: NavPress, 1995), 135.

² Fred Heeren, “Exoplanets, SETI, and the Likelihood of Contact,” *Cosmic Pursuit*, Spring 1999, 27.

³ Ross, 137.

⁴ Richard A. Swenson, *More than Meets the Eye: Fascinating Glimpses of God’s Power and Design* (Colorado Springs, CO: NavPress, 2000), 113–16; 150–51.

⁵ Henry M. Morris and Gary E. Parker, *What Is Creation Science?* rev. ed. (El Cajon, CA: Master Books, 1987), 268.

⁶ *Merriam-Webster’s Collegiate Dictionary*, 11th ed., s.v.: “anthropic principle.”

Carbon is formed by nuclear reactions in stellar interiors that combine three nuclei of helium to make a nucleus of carbon. This three-body reaction is very improbable. In order to reconcile it with the abundance of carbon in the universe, Hoyle predicted that the carbon nucleus must possess an intrinsic energy level at a value almost equal to that of the sum of the three helium energies at the temperature of their combination. Under these circumstances the nuclear reaction proceeds with especial rapidity: it is said to be “resonant.” Soon afterward, physicists found an energy level of carbon in precisely the place predicted by Hoyle. Subsequently, it was found that the next nuclear reaction in the chain, the combination of carbon with another helium nucleus to make oxygen, just fails to be resonant by a very narrow margin. If it had also been resonant, then all the carbon needed to promote biochemistry would have been rapidly burned to oxygen. These coincidences in the relative positions of energy levels in carbon and oxygen nuclei are ultimately determined by complicated combinations of the values of fundamental constants of nature. Were their values slightly different from those observed, then the building blocks of life—elements heavier than helium—would not easily form and persist; life might even be impossible.⁷

18. The life-cycle for plants and animals is dependent upon carbon compounds both personally and environmentally:

A natural sequence of chemical reactions called the carbon cycle— involving conversion of atmospheric carbon dioxide to carbohydrates by photosynthesis in plants, the consumption of these carbohydrates by animals and oxidation of them through metabolism to produce carbon dioxide and other products, and the return of carbon dioxide to the atmosphere—is one of the most important of all biological processes.⁸

19. The structure of the universe was created by God with the express purpose of supporting life on the Earth – a very extraordinary and exceptional place.
20. The angels were its first inhabitants as is noted in the Lord’s comments to Job in:

Job 38:4 - “Where were you when I created the earth? Tell Me if you have understanding.

⁷ anthropic principle." *Encyclopædia Britannica. Encyclopædia Britannica Online.* Encyclopædia Britannica Inc., 2012. Web. 24 Jan. 2012. <http://www.britannica.com/EBchecked/topic/1562884/anthropic-principle>

⁸ "carbon (C)." *Encyclopædia Britannica. Encyclopædia Britannica Online.* Encyclopædia Britannica Inc., 2012. Web. 24 Jan. 2012. <http://www.britannica.com/EBchecked/topic/94732/carbon>

v. 5 - “Do you know Who set its dimensions? Or who stretched the line [**Who surveyed it?**] on it ?

v. 6 - “On what were its foundations fastened? Or who laid its cornerstone,

v. 7 - when the morning stars sang together and all the sons of God shouted for joy?”

21. The “morning stars” and the “sons of God” refer to the entire angelic civilization expressing their happiness at the creation through songs and cheers.
22. Yet in time the angelic family suffered division as one-third of the hosts rebelled by following Lucifer in his campaign to “be like the Most High” (Isaiah 14:14).
23. The perfect creation suffered its first catastrophism due to the fall of Lucifer and is documented as *tohu wabohu* in Genesis 1:2 and as *tohu* Isaiah 45:18.
24. The resultant trial of Lucifer and the fallen angels followed resulting in a conviction of guilt and a sentence to the lake of fire. The verdict was subsequently challenged by Lucifer functioning as his own defense attorney under the title of Satan.
25. An appeal trial was obviously requested and granted by comparing the issuing of the sentence prior to human history, mentioned in Matthew 25:41, but not carried out until after human history, noted in Revelation 20:10.
26. To resolve the question, God created the human race with the power of choice in order to resolve the question. The Holy Spirit thawed the frozen Earth, molded the landscape, and the Lord restored Earth for human occupation over a six-day period.
27. The sixth day saw the creation of the remaining fauna followed by that of man and later the woman.

28. The man was molded [יָצַר (*yatsar*): to create by **molding preexisting materials**] while the woman was sculpted or built [בָּנָה (*banah*): to create by **sculpting preexisting materials**] from the support beam of Adam's rib: "bone from his bone; flesh from his flesh" (Genesis 2:23).