

**The Origin Of The Earth And The Universe - Different**

**Theories Reading Passage**

When we talk of evolution, we generally refer to the biological evolution of living beings. However, evolution also refers to the processes by which galaxies, stars, planets, and the universe come into existence and change.

Though these processes are quite different, the common fact is the change over time. But for centuries scientists held the belief that the universe always remained the same.

In 1929, Edwin Hubble, an American astronomer, made an interesting observation that distant galaxies and stars are moving away from the Earth in all directions. This led to Hubble's hypothesis that the universe is not static but is expanding. He also discovered that the speeds with which galaxies are racing away from each other increase with the increasing distances between them and this has been proved now by various repeated measurements.

Certain deductions can be made from Hubble's hypothesis of an expanding universe. One of them is that in a previous era the universe was more condensed. This suggests that all the matter and energy in the universe were earlier condensed in a tiny and extremely hot mass. A massive explosion called the Big Bang, occurred around 13.8 billion years ago and it sent energy and matter expanding in every direction at a very high speed.

Complete the summary using one word from the text.

When discussing evolution, it involves both biological changes in living organisms and the (1) ---- responsible for the creation and transformation of galaxies, stars, planets, and the universe itself.

Previously, scientists believed the universe (2) ---- unchanging, until Edwin Hubble's 1929 discovery that distant galaxies were (3) ---- away in all directions, suggesting an expanding universe.

Hubble's observations led to the concept of an (4) ---- universe originating from an earlier condensed state. This theory, known as the Big Bang, asserts that around 13.8 billion years ago, a colossal (5) ---- scattered energy and matter, kickstarting the formation of galaxies and stars like our sun.

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6 As the universe continued to expand, matter gathered into clouds that started to condense and then rotate, forming the predecessors of the galaxies. Due to the changes in pressure inside galaxies, including our own Milky Way, dust and gas formed distinct clouds. Further, some of these clouds collapsed due to the gravitational attraction as there was enough mass, and the correct forces were at play. When the cloud material mass was adequately compressed, nuclear reactions took place leading to the 7 birth of stars. Our sun, for example, formed in the center of a flattened spinning disk of matter.

8 After the formation of the sun, the remaining dust and gas present in this disk collided and clumped into grains which further combined to form very small planets called planetesimals. Some of these were several hundred kilometers in diameter. These planetesimals then coalesced into nine planets with many satellites. The rocky planets like Earth were formed near the sun, while 9 gaseous planets were located in distant orbits.

As the universe expanded, matter coalesced into rotating (6) ----, laying the groundwork for galaxies. Inside these galaxies, including our own Milky Way, shifts in pressure prompted the formation of distinct gas and dust clouds, some collapsing under gravitational forces to trigger nuclear reactions and (7) ---- of stars, like our sun, forming within a spinning disk of matter.

Following the sun's formation, residual dust and gas collided, forming grains that aggregated into small planetesimals, (8) ---- hundreds of kilometers wide. These planetesimals merged to create the nine planets and numerous satellites. Rocky planets, such as Earth, emerged closer to the sun, (9) ---- gas giants settled into more distant orbits.

some (are)

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According to another theory, which is propounded by some religions as well as scientists, the universe was created by God. This theory also termed 'theistic evolution, claims that God is the chief motive behind the physical and biological evolution that created the solar system and life on Earth. The proponents of this creationist theory have various viewpoints. Some feel that the Earth and universe are comparatively young - around 6,000 to 10,000 years old. These people also believe that the existing form of Earth is due to 'catastrophism' which included a worldwide flood, and there was miraculous creation of humans and all living things as they are today.

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An alternative theory, advocated by certain (10) ---- and scientists, suggests that God is the architect behind the universe's creation. Termed 'theistic evolution,' it posits God as the driving force (10) ---- both the physical and biological evolution shaping the solar system and life on Earth. Proponents of this theory vary in beliefs, with some proposing a relatively young Earth and universe—(11) ---- 6,000 to 10,000 years old. They also advocate 'catastrophism,' attributing Earth's present state to a worldwide flood and asserting a miraculous creation of humans and (12) ---- current life forms.

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There are other advocates of creationist theory who accept the fact that the Earth, the stars, and the planets could have **been in existence** a million years ago. However, they argue that the **presence of living organisms**, especially humans, is due to the **intervention of supernatural powers** as creation shows 'intelligent design.' Even though such theories abound, there **is no valid scientific information** that suggests that Earth **came into being** only a few thousand years **ago**.

It is not surprising that there are so many theories trying to explain the **origins** of the Earth and the universe, as the vastness of space has always **captivated** us. However, one has to ask, will researchers ever be able to **prove** what led to the **creation** of the universe and our wonderful planet or will we have to satisfy ourselves with various theories and conjectures? Only time will tell.

Some supporters of the creationist theory **acknowledge** the Earth, stars, and planets potentially **existing** millions of years ago but assert that the **emergence** of life, especially humans, is a result of supernatural **(13)** ----, emphasizing an 'intelligent **design**.' Despite numerous theories, **there's no credible (14)** ---- evidence **suggesting an Earth formation** merely a few thousand years ago.

The vastness of space has long **(15)** ---- **humanity**, prompting numerous theories about the origins of the Earth and the universe. Yet, the question remains whether researchers will ever conclusively **(16)** ---- the **genesis** of the universe and our planet or if we'll **rely on** a spectrum of theories and speculations. **(17)**---- time holds the answer to **this quest for understanding**.