In the second half of the 20th century huge advances were made in the area of science about the creation and origins of the universe. In the past religion and science have had a strained relationship with one seeming to contradict the other. Science and religion look at the creation of the world from different view points - but sometimes they can work together in the search for understanding such as the area of COSMOLOGY.

Cosmology looks at how the universe came to be created.

There are 2 theories that point to how our universe came into existence:

1. The Big Bang Theory:

The Big Bang theory is an effort to explain what happened at the very beginning of our universe. Discoveries in astronomy and physics have shown beyond a reasonable doubt that our universe did in fact have a beginning. Prior to that moment there was nothing; during and after that moment there was something: our universe. The big bang theory is an effort to explain what happened during and after that moment.

According to the standard theory, our universe sprang into existence as "singularity" around 13.7 billion years ago. What is a "singularity" and where does it come from? Well, to be honest, we don't know for sure. Singularities are zones which defy our current understanding of physics. They are thought to exist at the core of "black holes." Black holes are areas of intense gravitational pressure. The pressure is thought to be so intense that finite matter is actually squished into infinite density (a mathematical concept which truly boggles the mind). These zones of infinite density are called "singularities." Our universe is thought to have begun as an infinitesimally small, infinitely hot, infinitely dense, something - a singularity. Where did it come from? We don't know. Why did it appear? We don't know.

After its initial appearance, it apparently inflated (the "Big Bang"), expanded and cooled, going from very, very small and very, very hot, to the size and temperature of our current universe. It continues to expand and cool to this day and we are inside of it: incredible creatures living on a unique planet, circling a beautiful star clustered together with several hundred billion other stars in a galaxy soaring through the cosmos, all of which is inside of an expanding universe that began as an infinitesimal singularity which appeared out of nowhere for reasons unknown. This is the Big Bang theory.

2. The Expanding Universe Theory:

In the 1920s an American Astronomer, Edwin Hubble discovered that galaxies are not falling together but moving apart from one another. This is called the expanding universe theory. Simply put if the universe is expanding then it must have been smaller at some point. The acceleration (the speed at which the galaxies are moving) is slowing down. This supports that there was an initial explosion (or big bang!) that initially set the world into motion. Space began at the big ban and since time and space are

intricately linked then time began at the big bang also. This moment of creation is when time and space exploded out of nothing.

It is generally agreed that the big bang caused the creation of the universe. what is not known is the cause of creation. So if there was a big bang - then who lit the match? God?