George Lemaitre was the first to propose the idea of the Big Bang - based on his calculations of the Universe from the general theory of relativity. He used the data from Edwin Hubble.

Planets are under the force of gravity of the star (the sun). To remain at that distance from the Sun, the force of gravity of the Sun must be balanced by another force. By moving around the sun, the planets have angular momentum and a centrifugal force, which balances the gravitational force. Hence to remain at that distance, they have to move.

We believe that the Universe initiated in a point ~13.7 Billion years ago. We come to this number based on the fact, that we can observe the Universe expanding, and we can extrapolate backwards in time to get the age of the Universe. In practice, the rate of expansion of the Universe is called the "Hubble Constant". Take the inverse of this gives us the approximate age of the Universe.

The expansion of the Universe can be understood as an initial thrust from its beginning. Imagine that you throw a ball up. You provide it some thrust. But even after the ball leaves your hand, the ball continues to climb. An initial thrust allows the ball to climb. Similarly, we can intuit that an initial thrust is responsible for the continuous expansion of the Universe.

The Universe is expanding, but it is difficult to imagine "into what". In asking this question, we are transferring our daily intuition to the Universe. This is not very accurate. It is space itself which is expanding, and hence the best way to imagine it, is to think of a surface of a balloon, and that the galaxies are surfaces on the balloon. In a certain way, "space" is being created.

Due to the expansion of the Universe, and the finite speed of light, various parts of the Universe loose contact with each other. In fact, there are large parts of the Universe we cannot see, because they are too far away. We have lost contact with that part of the Universe.

Electromagnetic Radiation is basically "light", and visible light makes up part of the full electromagnetic spectrum. When a body emits light, it emits in a range of wavelengths, which peaks at a certain wavelength and temperature. Thus even light has a temperature. The temperature depends on wavelength. Due to the expansion of the Universe, the wavelength of the radiation increases, and hence the temperature of the radiation decreases.

Entropy: is a physical concept introduced in the second law of thermodynamics, which talks about the amount of disorder in the Universe. According to the second law of thermodynamics, entropy must increase, or disorder must increase. This gives us a direction of time. Over time, the Universe gets cooler and more disordered.

We can also extrapolate the expansion of the Universe towards the future. Will the Universe continue to expand? Does it have enough energy to do so? Or using the example and the intuition of the ball thrown in the air, will it rise to a single point and then falls down? The answer to this question lies in the "acceleration" of the Universe, and "Dark energy" that causes this acceleration. Note that the expansion of the Universe is not attributed to "Dark Energy" - Dark energy is responsible for the acceleration of the Universe.

The names we have given things have changed over time. 100 years ago.... a galaxy and the Universe was the same thing. In fact, when people realised that the Andromeda galaxy was far away, they called it "another Universe". Today we talk about a single Universe and multiple galaxies.

There is a theory which postulates that they may be "multiple Universes", which cannot communicate with each other. In fact, these other Universes may obey "other" laws of physics - different from ours. This is only a theoretical idea. In fact, it appears that there is no way to test this idea, and thus this idea is really in the realm of "metaphysics" since it is untestable. Furthermore, people talk about expansion and contraction to a point and then again an expansion - the so called, "cyclic universes". Also, such an idea is untestable.

Although galaxies further away from us are receding away from us due to the expansion of the Universe, Andromeda is on a collision-course with the Milky Way. The way to understand this is a balance of forces. Think of two forces - a force of expansion and a force of contraction due to gravity. Since gravity is stronger at close distances, locally gravity wins, but globally expansion wins. Therefore, we will have galaxies close-by attracted towards each other due to gravity, but on the whole, galaxies at large distance are receding away from each other.

The death of a galaxy: A galaxy can be totally destroyed if it is accreted or "eaten" by a larger galaxy. Further, we also talk about galaxies that are quenched, which means that they are unable to form new stars. In this case, it continues to exists and be seen, but it undergoes no star formation.

The question of "Pluto": Science depends upon classifying objects correctly. In our solar system, there are number of objects which are similar to Pluto but were not considered a "planet" but "planetoids". Pluto in its orbit and its size behaves more like a "planetoid". Hence, the astronomical community decided to re-classify it as a planetoid.