

# THE UNIVERSE

**WITH THE NAME OF ALLAH, MOST GRACIOUS, MOST MERCIFUL.**

## **The big bang theory**

According to this theory the universe began as a tightly packed super-giant atom about fifteen billion years ago.

This massive atom exploded and from it came all the material of which the universe is made.

Gas and dust formed after the explosion.

This material then condensed into galaxies which began to move outward into curved space.

The great force of the explosion carried the galaxies from the original explosion. Observations show that the galaxies are still moving outward --- in other words, the universe is still expanding,

Refer to Sura al- Dhariat (ch.51): verse 47:-

“With power and skill did we construct the firmament: for it is we who create the vastness of space.”

The ‘big bang theory’ is supported by the detection of a certain type of radio wave throughout space. Such radio waves are just the kind that would be produced by a ‘big bang’.

Now listen to Allah (S.W.T.) in Sura al-Anbiyya (ch.21): verse 30:-

“Do the unbelievers not see that the heavens and the earth (i.e., the universe) were joined together (as one unit of creation), before we split them asunder? We made from water every living thing. Will they not then believe?”

The seas cover 5 / 7 th’s of the earth. At one time the earth must have been in a vaporous state after the separation from the sun. The heat lessened gradually and those vapours which prevented light from reaching the earth condensed into water which covered the face of the earth.

Refer to Sura Hud (ch. 11): verse 7:-

“He (Allah) it is who made the heavens and the earth in six periods --- and his throne was over the waters --- ...”

The earth began to cool gradually and this caused the earth to shrink. As it shrank, it pressed the interior out of which rushed the lava and the molten rock that formed the oldest plateaux and mountains.

Refer to Sura al Anbiyya (ch.21): verse 31:-

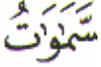
"And We have set on the earth mountains standing firm, lest it (the earth) should shake with them, ..."

*Let us now direct our attention to the phenomena of the starry land. The entire universe is magnificent in its beauty and infinitely awe-inspiring in its contemplation and study.*

Refer: - Sura al Mulk (ch. 67): verses 3 & 4:-

"He (Allah) it is who created the seven heavens one above the other: no want of proportion will you see in the creation of (Allah) most gracious. So turn your vision again: do you see any flaw? Again turn your vision a second time: (your) vision will come back to you dull and discomfited, in a state worn out."

Since Allah (S.W.T.) is the creator of the universe, the Noble has many things to say about it.

The Arabic term  can mean galaxies.

It can also mean sky, space, solar system (i.e., the lowest heaven), ozone layer, and clouds from the first layer of the atmosphere.

Here are a few examples from the Holy Quraan itself:-

- 1) Sky --- Sura al-Baqara ch.2): verse 22
- 2) Space --- Sura al- Dhariat (ch.51): verse 47
- 3) Solar system --- Sura al- Saffat (ch.37): verse 6
- 4) Clouds from the first layer of the atmosphere ---  
Sura al-Furqan (ch.25): verse 48
- 5) Galaxies --- Sura al-anbiyya (ch.21): verse 104

Astronomers describe galaxies as being spiral-shaped or wheel-like, --- just as Allah (S.W.t.) describes them in ch. 21: verse 104.

Our galaxy (Milky Way) is about 100,000 light years in length from one tapered end to the other.

#### What is a light year?

A light year is the distance that light travels in one year, --- approx., 10,000.000.000,000 ( ten trillion kilometres, or 6 trillion miles).

Light travels at a speed of over 186,000 miles per second.  
In other words, given the size of the earth, light will travel seven times around the world in one second.

In Sura al-Mu-minun (ch. 23): verse 86 the expression, implies that the observable universe has numerous galaxies.

Allah (S.W.T.) maintains order, perfection and harmony in the universe.

# OUR GALAXY

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## **The sun**

It is recognised as a star and is about 150 million kilometres from the earth.

Its diameter is about 1,384,000 kilometres -- i.e., a little more than 100 times that of the earth.

The gases in the sun, mainly hydrogen and helium are compressed because of the enormous pressures, to a density 14 times that of lead.

Under so much pressure the hydrogen is transformed into helium in thermonuclear reactions that release massive amounts of energy.

The term, 'thermonuclear' means, 'very high temperatures that result when the central parts of the atoms are joined together --- like thermonuclear bombs!

This energy passes through a thick layer of hot gases that blankets the inner core and it eventually reaches the sun's surface where it is radiated into space as heat and light.

Refer: - Sura Yunus (ch.10): verse 5:-

"It is He (Allah) who made the sun to be a shining glory..."

In the above verse the Arabic term '**diya**' has been used as opposed to the word '**nur**'.

The word '**diya**' implies that the light of the sun is extremely strong and subsists by itself. The word '**diya**' has a more intensive connotation than the term '**nur**'.

The term '**nur**' is more extensive and more general, --- like denoting light as opposed to darkness.

Temperatures in the core of the sun reach 15 million degrees Centigrade / Celsius.

Its surface temperature is about 5,500 degrees centigrade.

It takes the light of the sun about 500 seconds to reach the earth as it travels at a speed of over 186,000 miles per second.

The sun travels through space at a speed of about 240 kilometres per second and it moves horizontally in space.

Refer: - Sura Ya-Sin (ch.36); verse 38:-

“And the sun runs her course for a period determined for her: that is the decree of the exalted in might, the all-knowing.”

In the above verse, the term '**tajree**' implies that the sun moves horizontally.

Only recently have the scientific community discovered that the sun moves in space!

## **Mercury**

This is the nearest planet in proximity to the sun.

It takes 88 days for mercury to make one revolution of the sun. In other words, 88 days of earthly reckoning make up one mercurial year.

It does not spin on its own axis. Hence one side is extremely hot while the other is very old.

The possibility of life on mercury is very slim or none at all.

## **Venus**

This planet is shrouded by clouds and it rains sulphuric acid.

If a lady is thinking of having her facial make-up on Venus, well, she will have a whole lot of holes on her face!

Carbon dioxide is trapped in its atmosphere, so the heat is intense.

## **Mars**

This planet has little oxygen and it cannot be enriched with oxygen.

Here too, life does not seem to be possible.

It has two moons. One of these moons has no mountains, so it wobbles.

Imagine what would have happened to the earth if it had no mountains.

A space-ship had landed on mars.

## **Asteroids**

These are made up of small and very huge rock-like formations.

There are millions of them out there in space.

## **Jupiter**

It is very gaseous, hot and is the largest known planet

This planet, together with Saturn, Uranus and Neptune are known as 'the giant planets'.

The American space-ship, Voyager 1 was almost destroyed --- it has a very strong magnetic field and a good percentage of ammonia and chlorine can be found to exist there.

This planet has 17 moons!

Here, 10 hours make up the entire day

Only recently did the scientists discover a thin ring around Jupiter.

## **Saturn**

This is an extremely beautiful planet and its composition is similar to Jupiter's.

However, it is a very dangerous planet, and as far as is known, Voyager 1 would have had no chance of reaching it.

## **Uranus**

This is a very gaseous planet with a few rings.

The rotation of this planet is different which led scientists to believe there is another planet.

## **Neptune**

This is one of the giant planets with the same composition as Uranus, and is far away.

Voyager 1 / 2 departed in 1974 and reached Jupiter in 1979. In 1984 it reached Saturn. Scientists were hopeful that it would reach Neptune in the nineties. As yet, I have not anything about it having reached Neptune.

## **Pluto**

This is a very cold planet because it very far away from the sun.

From this planet the sun would look like a star.

## **Moon**

Its diameter is about 3,456 kilometres, about one quarter of the earth's diameter.

It is about 384,000 kilometres from the earth.

Like the other planets it reflects the light of the sun at night.

## **Earth**

Our earth is a beautiful planet --- blue sky, water, herbage trees, oxygen life, etc.

With the exception of mars, the sky appears black from the other planets because of the nitrogen in the skies --- polarisation.

The sun is about 150 million kilometres from the earth --- the right distance for life to thrive on earth.

Refer: - Sura al-Baqara (ch.2): verse 36

"... We said: 'Get you down, all with enmity between yourselves. On earth will be your dwelling place and a means of livelihood --- for a while'."

The Holy Quraan refers to planets, stars and comets

Planets ---

Sura An'am (ch.6): verse 76 /  
Sura Yusuf (ch.12): verse 4  
& Sura al-Saffat (ch.37): verse 6

Stars ---

Sura al-Nahl (ch.16): verse 16 /  
Sura al-Saffat (ch.37): verse 88  
& Sura Najm (ch.53): verse 1

Comets ---

Sura al-Jinn (ch.72): verse 8

Arguments against the popular belief that the universe is about 15 billion years old:-

Plutonium changes into lead and this process gives off Helium which is discharged into the atmosphere. Meanwhile, the sun also discharges Helium into our atmosphere. As far is known, this Helium in our atmosphere cannot escape. Had the earth, together with the cosmos been created 15 billion years ago, the entire atmosphere would have been saturated with Helium.

However, our atmosphere has not all that much Helium. This seems to indicate that the universe is very much younger. Some learned folk are convinced that the universe is about 10,000 years young!

The carbon-dating method, it has been proven, is not all that reliable!

The magnetic field in the north consistently loses half of its potency every 1,400 years. Had the earth been born 15 billion years ago, it has been calculated that this magnetic field would have had to be as potent as the most potent star --- this is impossibility!

We may well ask, has the universe come about accidentally, or is there a supreme being who created it?

**As believers we are absolutely sure that Allah (S.W.T.) is the inexhaustible power who designed and created the universe. It is he who spins the cosmos and holds together its numerous parts as he holds together the various organs of the human body!**

All praise and thanks belong to Allah (S.W.T.) for nothing in existence could have come into existence without His existence!