Information you know and don't know about the universe

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Annotation: In this article you can learn about the wonders of the Universe. You will learn about the work of our great scientists in the study of the universe. The lesson also includes information that should be passed on to young children. It is impossible to enumerate how many wonders of the universe. We also get to know the planets, stars, and the history and names of their names.

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OUR GALAXY. At night, when it is dark, we see a bright belt stretching across the sky. This is the Milky Way. If we look along the Milky Way, we see that not all of its parts are the same width. When we look at the Milky Way through a simple field binoculars or a smaller telescope, we see that it is made up of twinkling stars. In some parts of it, the stars are not visible at all. The reason for this is the gas-dust clouds in this part of the Milky Way, where the rays of the stars are absorbed and invisible to us. All the stars seen in the sky make up our galaxy. The sun (as an ordinary star) is also a member of this giant star cluster, so we call it our galaxy. Most of the stars in our galaxy are shaped like a convex lens in space. The diameter of our lens-like galaxy is negligible. The solar system, from the center of our galaxy, is equal to 2G'3 of its radius. g (33,000 light-years). If our galaxy is viewed from the top of the disk (that is, the plane of the Milky Way) from the top, in other words, from the side perpendicular to its plane, our galaxy takes on the appearance of sleeves reminiscent of a clock pendulum spring. When viewed from the side of the solar system, the central core of our galaxy is projected onto the constellation Sagittarius.

Most people can't imagine how big and huge the universe is. It is so vast and extraor dinarily large that it would take billions of years for it to fly at the speed of light to reach us from one end to the other. There are also other objects in such an extraor dinarily large universe that are so fast-paced that we will talk about some of them below.

The largest exoplanet known to science today is the galaxy [x] GQ Lupi b [/ x]. It was first discovered by scientists in 2005, when astronomers did not know what the object really was. When the object was discovered, it was known to be 2.5 times the distance between its star, Pluto, and the Sun. Depending on its size, it could be either an extra ordinarily large planet or a tiny brown star. Careful research has shown that the object GQ Lupi b is actually a very large planet with a radius 3.5 times larger than Jupiter. It is the largest of the planets identified so far.

The largest star is the [x] HOUSE Scuti [/ x] star with a radius 1,700 times that of the Sun. For comparison, this star can easily fit part of the solar system up to the orbit of Jupiter. Its gas and dust are scattered far beyond the solar system, in space of up to 400 astro nomical units.

Interesting facts about the universe:

• The largest black hole in the universe is N4889, which is 20 billion light years from the sun. times big.

• If you start counting the stars in a galaxy, it will take at least 3,000 years to count them all.

• Of all the planets, Jupiter has been found to rotate the fastest around its axis. The point on the surface of Jupiter is moving at a speed of 500 kilometers per hour at the expense of the earth. Jupiter lasts only ten hours a day. • The Earth's magnetic field directs the flow of winds from the sun to the east or west

.• In fact, Saturn is very light. Its average density is almost twice that of water. If it were possible to lower it into the water, it would be floating on the surface of the water without drowning.

• Inside Jupiter would be all the planets in the solar system.

• The diameter of the star Betelgeuse is larger than the Earth's orbit around the Sun.

• About 40 stars appear in our galaxy every year.

• We are moving around the universe at a speed of 530 km / sec. Within our galaxy, the Earth is moving at a speed of 225 km / s, while the Milky Way (our galaxy) is moving across the universe at a speed of 305 km / s.

• In weightless mode, all people are about 5 inches taller. On Earth, gravity puts pressure on the spine, but in the universe nothing affects the spine, and it is adjusted in length.

We can learn about the universe from the books and works of many of our scientists.Let’s take a brief look at what scientists have done.

Ziji jadidi Koragoniy "Ulugbek ziji or" Sultan of Ziji "is an astronomical table published by Mirzo Ulugbek in 1437. It is one of the greatest star catalogs in the works of Ptolemy and Tycho Brahe. Mirzo Ulugbek has been well known in Europe, America and Asia since the 15th century. The rapid development of astronomy in Europe in the late 16th and early 17th centuries increased the intere of Europeans in the Samarkand Academy. As a result of his student Ali Kushchi's promotion of Ulugbek's works in Turkey, Europeans benefited from his discoveries.

Today, more than 150 copies of Ziji Jadidi Koragoniy are known. According to other sources, there are about 120 Persian copies and more than 15 Arabic copies. Mirzo Ulugbek was more interested science than in government. His works such as "Treatise on determining the sine of a degree", "Risolai Ulugbek", "History of four nations", "Ziji jadidi Koragoniy", "New tables of Koragoniy" are still studied by world scientists. . Ulugbek's work "Ziji jadidi

Koragoniy" is also called "Ulugbek ziji "Ziji Koragoniy". The word "zij" is derived from the Persian word "zik", which means "table". This work is the result of Ulugbek's nearly 30 years of research and was completed in 1444. The work was written in Persian and later translated into Arabic by Giyosiddin Al-Kashi. Ziji Jadidi Koragoniy consists of an introduction and four articles.

Galileo Galilei (February 15, 1564 - January 8, 1642) was an Italian philosopher, phy sicist, and astronomer who greatly influenced the science of his time. Galileo is best known for his research on planets and stars, his active use of the Earth's heliocentric system, and his experiments in mechanics. With the help of a telescope he made (mag nifying 32 times), he discovered the unevenness of the Moon's surface, the change of thephase of Venus, the spots of the Sun, the four moons of Jupiter, and the rotation of the Sun around its axis. These works of G. are described in the work "Star Herald" (1610-11).

Many cosmonauts are very ancient. Thus, Yu A. Karpenko, analyzing the names of the Great Dipper in different languages and regions of the world, concludes that the name of this constellation, which means "bear", means the most ancient antiquity. possible. ”The attribute for such a long period is that now this constellation does not look like a“ bear (bear) ”- it looks like a bucket, a cart, some other thing, and its configuration, as astronomers have established in the past. , looked like a bear. The naming of the cons tellation "Bear" has emerged, which can be predicted, independently of each other in several places in the northern hemisphere. In ancient times, the configuration of the seven bright stars of the constellation was similar to the image of a bear, hence the name. This resemblance, the author writes, was lost about 80,000 years ago in connec tion with the relative motion of stars. So the name could only have appeared until then. The naming of the constellation "Karetka" is based on its modern configuration. The proliferation of this name indicates that it originally appeared somewhere. Perhaps in Indo-European languages it is a genetic inheritance, in other languages it is derived from Indo-Europeans ”.

The names of all the planets outside the Earth are alien in scientific use and in the Russian literary language: Mercury, Venus, Mars, Jupiter, Saturn, as well as Neptune, Uranus and Pluto. The first five were already known in ancient times (they are visible to the naked eye). During the Pythagorean period (sixth century BC), the Greeks thought they were “burning” and “shining” with their flames, calling them “light”, “fire” (only later were these “luminaries” - dark and shining with sunlight). For the Greeks, Mercury "shines, shines", Venus "shines, dawns", Mars "fiery, fiery", Jupiter "shines, shines", Saturn "shines". When the Greeks knew that the Babylonians called these planets (and they were familiar with them 2,000 years before our era!) With the names of the gods, they decided to “Christianize” them by giving them the names of their Greek gods. . Aristotle (384-322 BC) already called them: Hermes (Mercury), Aphrodite (Venus), Areus (Mars), Zeus (Jupiter), Cronus, Kronos (Saturn). The Greek names were not accidental: “Mercury is the fastest of the planets, the messenger of the gods, the god of merchants and travelers, Hermes was very fast, and even had wings on his feet. The red color of the blood typical of Mars is easily associated with the god of war, Ares. Zeus, the greatest god, is assigned the brightest (invisible of Venus) planet of Jupiter. Immediately behind Jupiter was placed the planet Saturn. It was therefore logical to call him Kronos, the father of Zeus. The evening and morning star Venus took the name of the goddess of love, Aphrodite, with the logic of calling the Moon the sun of lovers. To the Romans, the divine pantheon corresponded mainly to the Greek language, the Greek names of the planets were "translated" into the names of their gods, so the names of Mercury, Venus, Mars, Jupiter, Saturn were generally accepted. IN ANCIENT RUSSIA Greek names appeared. Thus, in the Izbornik Svyatoslav of 1037, we read: "the seventh planets are the names: slantse, lonely, zeus, ermis, aris, aphrodite, kronos" (here the Sun and the Moon). incorrectly included in the list of planets)). The Latin names of the planets were known in our country since the end of the XVI century and finally took root in the XVIII century. In the time of Peter I.

On the hottest planet in the solar system, the temperature is 450 ° C. Venus is the hottest planet in the solar system, with an average surface temperature of about 450 C. Interestingly, Venus is not the closest planet to the Sun - it is closer to Mercury, but Mercury d not have an atmosphere to regulate temperature.

2. There may be life on Mars. Of all the planets in our solar system (except Earth), Mars is thought to have life. In 1986, NASA identified fossils of living things from microscopic rocks found on Mars. 3. No one knows exactly how many stars there are in space. The size of the space is so precise that it is impossible to accurately estimate how many stars we have. Scientists and astronomers now use the number of stars in our Milky Way galaxy to estimate They number between 200 and 400 billion stars and contain billions of galaxies, so the stars in spa are absolutely infinite.

4. One day on Venus is equal to one hundred years. Venus rotates slowly around its axis and takes 243 days to complete its orbit.

5. The Moon was once part of the Earth. The theory is that the Earth was a relatively young planet and was hit by a huge object, which gav rise to the Moon.

6. The volume of the Sun in the solar system is 99.86%. The Sun is the largest planet on the planet, accounting for 99.86% of the solar system, and is abou 330,000 times larger than Earth.

7. Mercury and Venus are the only two planets in our solar system that do not have the Moon.

8. Our solar system is 457 billion years old. In fact, it appeared 457 billion years ago.

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