Our solar system in the milky way

Our solar system is in one of the Milky Way galaxy"s spiral arms called the Orion Spur. 5. A Long Way Around. Our solar system takes about 230 million years to orbit the galactic center. 6. Spiraling Through Space. The Milky Way is a ...

Transcript (English) - [Narrator] Our solar system is one of over 500 known solar systems in the entire Milky Way galaxy. The solar system came into being about 4.5 billion years ago when a cloud of interstellar gas and dust collapsed, resulting in a solar nebula, a swirling disc of material that collided to form the solar system.

Many people are not clear about the difference between our Solar System, our Milky Way Galaxy, and the Universe. Let"s look at the basics. Our Solar System consists of our star, the Sun, and its orbiting planets (including Earth), along with numerous moons, asteroids, comet material, rocks, and dust.Our Sun is just one star among the hundreds of billions of stars in our ...

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The Sun orbits the center of the Milky Way, bringing with it the planets, asteroids, comets, and other objects in our solar system. Our solar system is moving with an average velocity of 450,000 miles per hour (720,000 kilometers per hour).

The Milky Way is approximately 100,000 light-years in diameter. Our solar system is 26,000 light-years from the center of the Galaxy. All objects in the Galaxy revolve around the Galaxy"s center. It takes 250 million years for our Sun (and the Earth with it) to make one revolution around the center of the Milky Way.

The planetary system we call home is located in an outer spiral arm of the Milky Way galaxy. Our solar system consists of our star, the Sun, and everything bound to it by gravity - the planets ...

The Milky Way is the galaxy which contains our solar system. The name "milky" is derived from the Greek word galaxias and it is used to describe its appearance as a dim glowing band which arches across the night sky - making individual stars indistinguishable to the naked eye.

Bottom line: The planets in our solar system orbit (revolve) around the sun, and the sun orbits (revolves) around the center of the Milky Way galaxy. We take about 225-250 million years to revolve ...

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The Solar System. Our Immediate Neighborhood. The solar system is a gravitationally bound system consisting of the Sun, eight planets, numerous moons, asteroids, comets, and other celestial bodies. Our solar system also orbits around the Milky Way"s center, moving at about 230 kilometers per second.

The Solar System"s location in the Milky Way is a factor in the evolutionary history of life on Earth. Spiral arms are home to a far larger concentration of supernovae, gravitational instabilities, and radiation that could disrupt the Solar System, but ...

Our solar system has been orbiting the Milky Way"s black hole heart for 4.6 billion years. But it is hard to pin down exactly how many trips around the galaxy our sun has made during that time.

"There is no short answer to this question, because astronomers have followed many lines of evidence to determine the location of the solar system in the Milky Way. But some of the general ...

But even at that high rate, it still takes us about 230 million years to make one complete orbit around the Milky Way! The Milky Way is a spiral galaxy. We believe that it consists of a central bulge, 4 major arms, and several shorter arm segments. The Sun (and, of course, the rest of our solar system) is located near the Orion arm, between two ...

Obviously our solar system lies very close to the galaxy"s equator. Figure 1. Polar view of the Milky Way Galaxy showing the location of the Solar System. As to our distance from the center of the galaxy, the best guess is that we are 26,000 to 28,000 light years from the center.

We can compare them by extending the plane of the solar system... [Grid continues marking the plane of solar system, extending as view zooms so that solar system shrinks in the distance, sun dims. Pass nearby stars, then distant stars.] ...thousands of light years... [View is rotating to a more edge-on view of solar system"s extended grid.

Exoplanets are planets that orbit other stars, just like the planets in our solar system orbit the Sun. There are around 4.099 confirmed exoplanets in the Milky Way. Another 5.000 are awaiting confirmation and more than 3.000 planetary systems have been confirmed. ... They are planets that have been thrown out of their solar system. The Milky ...

Our home galaxy is called the Milky Way. It"s a spiral galaxy with a disk of stars spanning more than 100,000 light-years. Earth is located along one of the galaxy"s spiral arms, about halfway from the center. Our solar system takes about 240 million years to orbit the Milky Way just once.

Our solar system includes the Sun, eight planets, five officially named dwarf planets, and hundreds of moons, and thousands of asteroids and comets. Our solar system is located in the Milky Way, a barred spiral galaxy

with two major ...

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The Solar System"s location in the Milky Way is a factor in the evolutionary history of life on Earth. Spiral arms are home to a far larger concentration of supernovae, gravitational instabilities, and radiation that could disrupt the Solar System, but since Earth stays in the Local Spur and therefore does not pass frequently through spiral ...