

Explore NASA's media galleriesto view and download high-resolution images of the solar system, agency missions, and more. Discover the cosmos! Each day a different image or photograph of our fascinating universe is featured, along with a brief explanation written by a professional astronomer.

What is eyes on the Solar System?

Eyes on the Solar System: A real-time visualization of our solar system using planetary science data. The Near-Earth Object (NEO) Surveyor is an infrared space telescope being built to help advance NASA's planetary defense efforts -- the first space telescope specifically designed to hunt asteroids and comets that may be potential hazards to Earth.

What are some interesting facts about our Solar System?

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 barred spiral galaxy. 7. Room to Breathe Our solar system has many worlds with many types of atmospheres. 8.

How many planets are in our Solar System?

Our solar system is made up of a star--the Sun--eight planets, more than 140 moons, a bunch of comets, asteroids and space rocks, ice, and several dwarf planets, such as Pluto.



This image captured by NASA's Solar Dynamics
Observatory on June 20, 2013 shows the bright light
of a solar flare on the left side of the Sun. Credit:
NASA/SDO. Check out some pictures of our Sun in
the NASA Solar System Exploration Sun gallery.





The Hubble Space Telescope turned its impressive eyes to Jupiter, the fifth planet from the sun, to take this lovely portrait in 2017. Jupiter, a gas giant, is the largest planet in our solar system.



At only four light-years away, Proxima Centauri b is our closest known exoplanet neighbor. Proxima b is a super Earth exoplanet that orbits a M-type star. Its mass is 1.27 Earths, it takes 11.2 days to complete one orbit of its star, and is 0.0485 AU from its star.



For the first time, astronomers have used NASA's James Webb Space Telescope to take a direct image of a planet outside our solar system. The exoplanet is a gas giant, meaning it has no rocky surface and could not be habitable. The image, as seen through four different light filters, shows how Webb's powerful infrared gaze can easily capture





Congratulations and thanks to our worldwide teams that made it possible." The release of Webb's first images and spectra kicks off the beginning of Webb's science operations, where astronomers around the world will have their chance to observe anything from objects within our solar system to the early universe using Webb's four instruments.



The image's central region, containing the star cluster, blends visible-light data taken by the Advanced Camera for Surveys and near-infrared exposures taken by the Wide Field Camera 3. Hubble's high-resolution images of the planets and moons in our Solar System can only be surpassed by pictures taken from spacecraft that actually visit



Eyes on the Solar System: A real-time visualization of our solar system using planetary science data. NASA/JPL-Caltech. Featured Missions. The spiral galaxy in this NASA/ESA Hubble Space Telescope image is IC 3225. It looks ???





Visualize orbits, relative positions and movements of the Solar System objects in an interactive 3D Solar System viewer and simulator. We use cookies to deliver essential features and to measure their performance.



Saturn, the second-largest planet in our solar system and is the sixth planet from the Sun. Famous for its rings, Saturn was captured brilliantly by the Hubble Space Telescope in 2019. 9 Last but



Introduction. 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 Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune; dwarf planets such as Pluto; dozens of moons; and millions of asteroids, comets, and meteoroids.





It's hard to make a true-color family portrait of the solar system. It turns out that most photos of planets aren"t true colors! Here's my attempt, using the best NASA photos I could find. Skip to main content. STEM. Japan's ???



Combining the images from the FORS instrument on the ESO telescope using four different filters with those of other large telescopes, a team of astronomers led by Karen Meech of the Institute for Astronomy in Hawaii found that "Oumuamua varies in brightness by a factor of 10 as it spins on its axis every 7.3 hours. No known asteroid or comet from our solar system varies so widely in



The solar system has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. There are five officially recognized dwarf planets in our solar system: Ceres, Pluto, Haumea, Makemake, and Eris. Get the Facts.





Read this article to find out how long it takes all the planets in our solar system to make a trip around the Sun. explore; Explore Mars: A Mars Rover Game. Drive around the Red Planet and gather information in this fun coding game! Gallery of NASA Solar System Images. Glorious planets and moons to view or print. explore; Voyager 1 and 2



Like early explorers mapping the continents of our globe, astronomers are busy charting the spiral structure of our galaxy, the Milky Way. Using infrared images from NASA's Spitzer Space Telescope, scientists have discovered that the Milky Way's elegant spiral structure is dominated by just two arms wrapping off the ends of a central bar of stars.



? The solar system's several billion comets are found mainly in two distinct reservoirs. The more-distant one, called the Oort cloud, is a spherical shell surrounding the solar system at a distance of approximately 50,000 astronomical units (AU)???more than 1,000 times the distance of Pluto's orbit. The other reservoir, the Kuiper belt, is a thick disk-shaped zone whose main ???





The Solar System [d] is the gravitationally bound system of the Sun and the objects that orbit it. [11] It formed about 4.6 billion years ago when a dense region of a molecular cloud collapsed, forming the Sun and a protoplanetary disc. The Sun is a typical star that maintains a balanced equilibrium by the fusion of hydrogen into helium at its core, releasing this energy from its ???



Asteroids, sometimes called minor planets, are rocky remnants left over from the early formation of our solar system about 4.6 billion years ago. The current known asteroid count is more than one million! Most of this ancient space rubble can be found orbiting our Sun between Mars and Jupiter within the main asteroid belt.



Our moon is the only other place in the solar system that that humans have visited. It's a cold round rock possessing caches of frozen water. Our moon orbits the Earth about once every 27 days at





NASA's MESSENGER spacecraft has constructed the first portrait of our solar system by combining 34 images taken by the spacecraft's Wide Angle Camera on Nov. 3 and 16, 2010. The mosaic, pieced together over a period of a few weeks, comprises all of the planets except for Uranus and Neptune, which were too faint to detect.



The Solar System "family portrait" is the final series of 60 images captured by NASA's Voyager 1 that show six of our solar system's planets. It remains the first and only time ??? so far ??? a spacecraft has attempted to photograph our home solar system. Only three spacecraft have been capable of making such an observation from such a distance: Voyager 1, Voyager ???