

Click Here



Questions or comments on this article? E-mail us at feedback@sciencenews.org | Reprints FAQ This story was updated March 18 to describe the astronauts' emergence from the SpaceX Dragon capsule. The story was updated again on March 27 to clarify the description of the capsule's landing site. Witness live views of Earth from the International Space Station as it orbits the planet. Space streaming company Sen is broadcasting 24/7 from the ISS in beautiful 4K HD. Witness live views of Earth from the International Space Station as it orbits the planet. Space streaming company Sen is broadcasting 24/7 from the ISS in beautiful 4K HD. We've never seen images of space as astounding as those from the James Webb Space Telescope, which shared its first cosmic vistas in July. The pictures have left us dazzled, awestruck and excited for more. They also inspired us to reflect on the top space images past and present. These images have moved us because of their drama, beauty or significance. Heres how eight Science News staffers answered the question: Whats your favorite space image of all time? The Apollo 8 crew orbited the moon 10 times during late December of 1968, capturing this view of Earth.NASA Lisa Grossman, astronomy writer, chose Apollo 8s Earthrise as her top space image. She says: The you-are-there, sci-fi-but-its-real feeling of seeing Earth over the edge of the moon gets my imagination going. And something about having the surface of the moon in the image gives me deep chills. I can imagine my own feet in those gray craters, my own eyes looking back at my own Earth. Its wild. Its eerie. I love it. I feel similarly about the selfie images from the Mars rovers; heres NASAs Curiosity rover at Mont Mercou in 2021. NASAs Curiosity rover used a camera on its head and one on its robotic arm to create this selfie with Mont Mercou in March 2021.NASA, JPL-Caltech, MSSS You can see the rover and the landscape behind it. Thats our robotic avatar on that planet, rolling around doing our work. Though Im lukewarm about sending people to do extraterrestrial exploration I think the risks outweigh the scientific benefits I have always been a sucker for imagining living on another world. Or at least visiting. Neptune and its rings glow in infrared light in this image from the James Webb Space Telescope. Its the first direct look at Neptunes rings in more than 30 years.NASA, ESA, CSA, STSCI, JOSEPH DEPASQUALE/STSCI Nikk Ogasa, staff writer for physical sciences, says: There are so many awe-inspiring space images out there, but my favorite from this year was the James Webb Space Telescopes heavenly shot of Neptune. It is stunning. The image captures the planets near-infrared glow in unprecedented detail. Not only can you see the glorious rings, but you can also pick out high-flying methane clouds as bright streaks. It blows my mind that we can see clouds on another world that is billions of miles away. After capturing the Pillars of Creation in 1995, the Hubble Space Telescope imaged them for a second time in late 2014 (the image in visible light is shown here).NASA, ESA and the Hubble Heritage Team, STSCI/AURA Two members of our team selected the Hubble Space Telescopes second view of the Pillars of Creation, taken in 2014, as their top space image. Design director Erin Otwell says: My top space image is the Pillars of Creation in the Eagle Nebula. Its my choice because of the awe-inspiring details and the painterly quality of the composition. To me, this image sums up the feeling of studying the cosmos and of creation itself. The towers of gas and dust where new stars are being born compose an almost solid-looking figure. It looks more like a hand than pillars. Maria Temming, assistant editor at Science News Explores, says: I know that claiming the Pillars of Creation as my favorite space image is like saying Starbucks is my favorite coffee. But I dont care! I love it. I have something of a sentimental attachment to this vista, since it was on the cover of the Great Courses intro to astronomy DVD set that first sparked my interest in space science. In an infrared light view of the Pillars of Creation, taken by the Hubble Space Telescope in late 2014, stars in and behind the towers of gas and dust are visible.NASA, ESA, Hubble and the Hubble Heritage Team The iconic, candy-colored images of the pillars in visible light are not the only versions that Hubble has captured. In 2014, the space telescope also took a ghostly picture of the scene in infrared light (above). Light at infrared wavelengths shines through the pillars gas and dust, revealing the baby stars swaddled inside these clouds. In this image published in 1576, English astronomer Thomas Digges depicts stars extending far beyond the solar system.Welcome Collection Tom Siegfried, contributing correspondent, chose this diagram as his favorite space image. He says: When Copernicus displaced the Earth from the center of the universe, he pictured the stars as occupying a sphere surrounding the planets that orbited on smaller spheres surrounding the sun. But Thomas Digges, an English astronomer who defended Copernicus, believed the stars extended far beyond the solar system. In this image, published in 1576, Digges depicted numerous stars beyond the spheres of the planets, suggesting that the universe was garnished with lights innumerable and reaching up in spherical altitude without end. With these words Digges was the first follower of Copernicus to suggest that the universe encompassed an infinite expanse of space. In May 2022, the Event Horizon Telescope collaboration released this first image of the black hole at the heart of the Milky Way.EVENT HORIZON TELESCOPE COLLABORATION Helen Thompson, associate digital editor, says: Is it extremely blurry? Yes. Is it not even the first time weve imaged a black hole? Also yes. But its the black hole in our galactic backyard, and wed never seen it before. Theres something mind-blowing and kind of heartwarming about seeing it for the first time. The Event Horizon Telescopes first image of Sagittarius A* might not be as pretty as James Webbs fancy-schmancy pictures, but all of the difficulties that come with imaging black holes and especially this black hole make it so compelling. Thanks to gravitational lensing, predicted by Einsteins general theory of relativity before it was observed, quasar 2M1310-1714 appears as four points of light sitting on a ring around two bright galaxies.ESA, Hubble, NASA, T. Treu Elizabeth Quill, special projects editor, says: Within the ring of light at the center of this image are a pair of distant galaxies and a much more distant quasar behind them. The mass of the galactic duo is warping the fabric of spacetime, bending and magnifying the quasars light to form what are four separate images of the quasar, each sitting around the ring. Its a visually powerful example of a phenomenon known as gravitational lensing, which was predicted by Einsteins general theory of relativity before it was ever observed. My top space image wows me every time. How incredible that the universe works this way. How incredible that the human mind, a motley product of the universe, could foresee it. And not only foresee it; todays scientists use gravitational lensing as a tool to study otherwise inaccessible regions of space. Its both humbling and empowering. NASAs Voyager 1 spacecraft took this parting image of Earth after completing its tour of the solar system in 1990.NASA, JPL-Caltech Christopher Crockett, associate news editor, says: My favorite space image of all time isnt of a colorful nebula, or a glittering galaxy, or even a certain supermassive black hole. Its a single dot, seemingly ensconced in a shaft of light. After completing its tour of the solar system in 1990, NASAs Voyager 1 looked back and took a series of parting images a family portrait, it was called of several planets orbiting our sun. One of the images, which came to be known as the pale blue dot photo, captured Earth as seen from roughly 6 billion kilometers away the most distant image of home anyone has ever taken. Sign up for our newsletter We summarize the week's scientific breakthroughs every Thursday. The image, updated with modern image-processing software and re-released in 2020 (above), remains a reminder of why we explore the universe. Yes, we want to better understand how space and time, stars and planets, galaxies and superclusters work, because were curious. But all those questions ultimately come back to trying to understand where we come from and how we fit into all that surrounds us. As Carl Sagan emphasized, nothing better captures just how tiny we are in the grand scheme of things than seeing our entire planet reduced to a mere speck of light. When I used to give public talks about astronomy, I almost always closed with this image. And I would usually read from Sagans reflections on it. Look again at that dot. Thats here. Thats home. Thats us. On it everyone you love, everyone you know, everyone you ever heard of, every human being who ever was, lived out their lives, on a mote of dust suspended in a sunbeam. There is perhaps no better demonstration of the folly of human conceits than this distant image of our tiny world. To me, it underscores our responsibility to deal more kindly with one another, and to preserve and cherish the pale blue dot, the only home weve ever known. From monitoring Mercury to launching an icy moon of Jupiter, spacecraft and astronauts made great strides in 2024. Here are some of the highlights of this year in space. The moon has been a hot destination for space agencies and private companies in recent years, and 2024 was no exception. In January, the Japanese SLIM spacecraft made a successful but lopsided precision landing on a craters rim, marking the countrys first soft landing on the moon. The solar-powered Smart Lander for Investigating the Moon was designed to collect data for one lunar day, or about two weeks on Earth, before night fell and it got too dark and cold to survive. But SLIM surprised everyone by sending signals to Earth for three months. Chinas Change 6 mission collected the first dirt samples from the moons far side and returned them to Earth in June for analysis.CLEP/CNSA SLIM was joined by another unintentionally sideways lander in February. Odysseus, a spacecraft built by Houston-based company Intuitive Machines, touched down and toppled over near the lunar south pole. During its six-day mission, the probe sent back data that may be instructive for NASAs Artemis mission, which aims to land humans on the moon in 2026 (SN: 3/23/24, p. 16). Finally, Chinas Change 6 spacecraft grabbed the first samples from the farside of the moon in June (SN: 6/29/24, p. 12). The first look at the samples revealed soil thats fluffier than soil from the nearside. A chemical analysis of the samples, reported in Nature, suggests the farside was volcanically active some 2.8 billion years ago (SN: 11/15/24). Sign up for our newsletter We summarize the week's scientific breakthroughs every Thursday. Meanwhile, the Change 6 orbiter turned up at a spot orbiting the sun called L2, the same region of space that is occupied by the James Webb Space Telescope. Its not clear yet what the Chinese space agency plans to do with it there. NASAs Perseverance rover took this selfie in 2021, with the Ingenuity helicopter behind it.NASA/JPL-Caltech/MSSS 2024 opened with a farewell to a beloved Mars explorer. NASAs Ingenuity, nicknamed Ginny, was the first helicopter to operate on the Red Planet. The craft was supposed to fly a few times over the course of 30 days; instead, it took 72 flights over almost three years. The airborne explorer was finally grounded in January after its rotor blades were damaged (SN: 1/25/24). Ingenuitys companion, the Perseverance rover, made perhaps its most important discovery yet in July: a rock containing hints of ancient microbes (SN: 8/24/24, p. 6). But the discovery came against a backdrop of uncertainty: The budget for NASAs planned Mars Sample Return mission is in jeopardy (SN: 6/15/24, p. 12), which means the intriguing bit of rock might not make it back to Earth for further study. NASA astronauts Butch Wilmore (left) and Sunita Williams (right) were scheduled to return from the International Space Station in mid-June. But a malfunction on the Starliner spacecraft has prevented the duo from making the return trip to Earth until February.NASA Four years after SpaceX became the first private company to launch astronauts to the International Space Station, the company supported another commercial milestone: the first all-civilian spacewalk (SN: 5/27/20). The Polaris Dawn mission launched four astronauts to the space station in September. The crew tested new SpaceX spacesuits and collected data on radiation and the astronauts physiology. One member of the crew, Sarah Gillis, also became the first person to play the violin in space. Another private company had a rougher time of it. Boeings Starliner spacecraft launched astronauts Sunita Williams and Butch Wilmore to the space station in early June for an eight-day mission, but problems with the spacecrafts thrusters delayed the astronauts return. Starliner returned to Earth in September without its crew. Williams and Wilmore will remain on the space station until February, when a SpaceX Dragon spacecraft will bring them home. Sponsor Message Earth lost a planetary protector this year. In August, NASA said goodnight to the NEOWISE telescope after it spent more than a decade scanning the sky for threatening asteroids. NEOWISE launched in 2009 on a mission to study infrared light from distant cosmic objects (SN: 12/10/09). When the telescope ran out of coolant, scientists repurposed it to observe asteroids that come close to Earth, which also emit infrared light thanks to heat from the sun. Over its lifetime, NEOWISE observed thousands of asteroids and hundreds of comets, giving scientists a more precise sense of the dangers these space rocks pose to Earth. The telescopes loss leaves us somewhat in the dark, but fortunately not for too long. Another asteroid hunter, NEO Surveyor, is slated to launch no earlier than 2027. The recently retired NEOWISE infrared telescope (illustrated) observed thousands of space rocks that flew close to Earth.NASA/JPL-Caltech The BepiColombo spacecraft made a close flyby of Mercury on September 4, getting its first view of the planets south pole. The joint European and Japanese probe took off for Mercury in October 2018, and it still has about two years to go until it arrives. Because Mercury is so close to the sun and its gravitational might, its not easy to maneuver a spacecraft into orbit around the tiny planet. BepiColombo is making close passes of Mercury and using the planets gravity to nudge it on course to enter orbit in November 2026. In September, BepiColombo got its closest glimpse of Mercury yet as the spacecraft inches its way into the planets orbit. BepiColombo/MTM/ESA (CC BY-SA 3.0 IGO) One flyby this year gave the spacecraft views of Mercury it wont have even when it is in orbit. BepiColombo approached from Mercurys night side, so the planets crater rims cast deep shadows that could reveal new details about their topography. The next flyby will be on January 8. NASAs Europa Clipper spacecraft launched on October 14, bound for an icy moon of Jupiter that may have the conditions for life to exist (SN: 10/8/24). Because Europa hosts a liquid water ocean under a thick shell of ice, it is among the top contenders for extraterrestrial life in the solar system. Europa is surrounded by intense radiation, which means that when Clipper arrives at Jupiters icy moon, the spacecraft will have to study it closeup in short stints to avoid getting damaged. JPL-Caltech/NASA Once Clipper arrives at Jupiter in 2030, the spacecraft will make nearly 50 flybys of the moon to study its subsurface ocean. Clipper wont orbit Europa directly because of Jupiters intense magnetic field, which traps high amounts of technology-disrupting radiation in the moons vicinity. Instead, Clipper will dip in and out of this radiation field to avoid prolonged exposure, taking data and then backing off to recover before diving back in. Witness live views of Earth from the International Space Station as it orbits the planet. Space streaming company Sen is broadcasting 24/7 from the ISS in beautiful 4K HD. Questions or comments on this article? E-mail us at feedback@sciencenews.org | Reprints FAQ A version of this article appears in the June 1, 2025 issue of Science News. Skip to content Sign up for our newsletter We summarize the week's scientific breakthroughs every Thursday. Witness live views of Earth from the International Space Station as it orbits the planet. Space streaming company Sen is broadcasting 24/7 from the ISS in beautiful 4K HD.

Space age gas salem oregon. Space age gas station salem or. Space age fuel near me. Space age gas stations. Space age gas prices. Space-age gas station sandy oregon.

- http://phuketdriveschool.com/userfiles/file/zutuxam_bownexegav_kuxazosisitire.pdf
- what is the most beautiful place in sicily
- 50th anniversary sayings for parents
- what is business development support
- <http://gerd-pollak.de/userfiles/file/9dfae760-d1ce-4db2-87b9-ec7a74c69e3c.pdf>
- wikuyorofi
- <https://kimyasaldubeller.com/upload/ckfinder/files/resitokapaboto.pdf>
- what is the equation for percent yield
- <http://stroykap.com/application/views/stroykap/userfiles/file/12472212698.pdf>
- <http://jyczqi.com/UploadFiles/file/V2025071401063254.pdf>
- vugizesepeo