



2024 Total Solar eclipse THROUGH THE EYES OF NASA

Advances in the arts and sciences have inspired humanity emotionally and intellectually for centuries.

The thunderous swell of an orchestra crescendo and the rumble in the skies as a rocket launches toward new discoveries in space both fill us with awe and excitement.

We are similarly delighted to round the corner of a gallery to discover a creation from an artist we'd never seen before, as we are to look at new images from the outer limits of our galaxy and learn more about our creation.

So, too, the curiosity that drives the arts and sciences are intertwined and mutually motivating. U.S. Poet Laureate Ada Limón has written a poem in honor of Jupiter's icy moon Europa that will travel on NASA's Europa Clipper spacecraft, launching this fall. There is also science-inspired iconic pop art, such as Andy Warhol's "Moonwalk," based on the first human steps on the Moon, and student-created artwork inspired by NASA's Psyche mission, which is currently on its way to study a metal-rich asteroid.

Sometimes science itself can appear artistic as well as informative. The breathtaking first images from NASA's James Webb Space Telescope included the Cosmic Cliffs, a nebula in our galaxy, which gave us a new look at formerly hidden "baby

stars" in a mountainous cloud of cosmic dust against the vast array of glittering space in the distance.

The stunning images obtained by NASA's Planetary Science and Astrophysics Division missions are much more than just pretty pictures. They contain data and information that helps us understand the origins of worlds near and far, and the potential for life elsewhere in the universe.

NASA's Planetary Science spacecraft continue to explore the full breadth of our solar system—from the innermost planet, Mercury, to the boundary of the Sun's reach, to the farthest reaches of the Kuiper Belt and beyond. In doing so, our scientific understanding and inspiration advance onward and the limits of spacecraft and robotic engineering design and operation are pushed ever further.

NASA's robotic explorers gather data to help scientists understand how the planets formed and evolved, the nature of solar system processes past and present, and how Earth became habitable.

We have orbited and traversed the surface of Mars, finding evidence of ancient liquid water and habitable environments. We have collected extraterrestrial material and brought it to Earth for study in advanced laboratories around the world. In 2022, NASA intentionally crashed the DART spacecraft

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into an asteroid, successfully changing the path of a celestial body for the first time to test a technique that could be used to protect Earth should a potentially devastating asteroid collision be identified.

NASA's Astrophysics Division is dedicated to exploring the universe, pushing the boundaries of what is known of the cosmos, and sharing their discoveries with the world. The division continues to expand humanity's understanding of the universe, explore how it began, and search for life with innovative technologies and groundbreaking science.

The NASA Astrophysics portfolio includes state-of-the-art telescopes and other technologies which have been used to conduct cutting-edge research and make trailblazing observations. Astrophysics missions have been used to

study exoplanets, dark matter, and black holes. Eclipses aren't just on Earth: When an observer views a planet crossing in front of its host star it will see a dip in the light of the host, this is known as a transit. This is used to see around a star in searches for more exoplanets.

With a suite of space-based observatories, ranging from strategic missions including the James Webb Space Telescope, Hubble Space Telescope, Chandra X-ray Observatory; innovative Explorer-class missions, such as the Neil Gehrels Swift Observatory, NuSTAR, TESS, and IXPE, Missions of Opportunity such as NICER and GUSTO; as well as smaller missions flown on CubeSats, balloons, and sounding rockets, the Astrophysics Division enables scientists to collect data which will unfold the mysteries of the universe. (cont.)



A view of the Aug. 21, 2017, total solar eclipse from Madras, Oregon. Photo credit: NASA/Gopalswamy.

NASA and the Art of Science

Planetary Science and Astrophysics join other sciences in forming NASA's Science Mission Directorate. These sciences are: Heliophysics, the study of the Sun and all it touches; Earth Science, which informs our understanding and stewardship of our home planet; and Biological and Physical Sciences, which uses the spaceflight environment to study quantum science and space biology, enabling us to thrive in deep space while benefiting humanity on

Earth. Through its science, technology, aeronautics, and human spaceflight, NASA explores the unknown in air and space, innovating for the benefit of humanity and inspiring the world through discovery.

This week, as we gather along the path of totality to watch the April 8 solar eclipse, we will witness the syncopated movement and beauty of the cosmos, a natural symphony of the art of science.

Seeking Support of Baylor-WSO Student Interns

You can join forces with us to keep the WSO strong by sponsoring a student intern playing in the orchestra. Sponsorship opportunities start at \$275.

Recognizing that the Waco Symphony Orchestra benefits from Baylor University services including rehearsal/concert venues and a shared music library, the Baylor-WSO Intern Scholarship Program was established in 1999 as a joint effort of the Waco Symphony and the Dallas Fort Worth Professional Musicians Association, AFM Local 72-147. Student interns audition for a position in the symphony, where they are mentored by seasoned musicians as they gain valuable professional orchestral experience. This program provides experiential learning, mentorship opportunities, and prepares students for professional music careers. To the best of our knowledge, this program is the only one of its kind.

Underwriting helps fund up to 20 Baylor-WSO Student Interns each year. The WSO is seeking to increase support for its interns. If you are interested in becoming a sponsor, scan the QR code below or contact WSA Executive Director Carolyn Bess at 254-754-1035.

See page 31 for a list of WSO Musicians and Baylor-WSO Student Interns.

