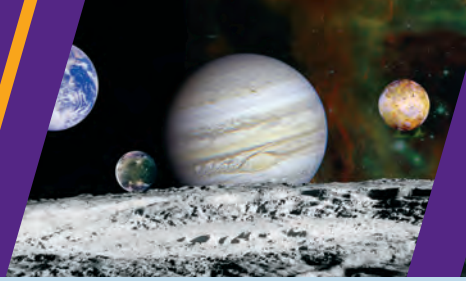


SPACE ACE



ASK A SPACE SCIENTIST

Our universe is full of mysteries, and some of the most mind-boggling are in space. Curious kids asked questions, and we sent them to two space scientists. Have questions about space? Send them to brilliant@usbnc.org (with your name and age).

How are your feelings about being in space? –Peter, age 10

Hi, Peter,
I always looked forward to being in space. It's hard to accurately describe what it feels like to be weightless, but it is an incredible sensation and also a lot of fun. All you have to do is to relax your body, and you can float in the middle of the air without any effort at all. Plus, we have the opportunity to look out of our spacecraft's windows and see our planet Earth. We live on a very beautiful planet, and being able to see so much of it from our spacecraft is an amazing experience.
–Wendy

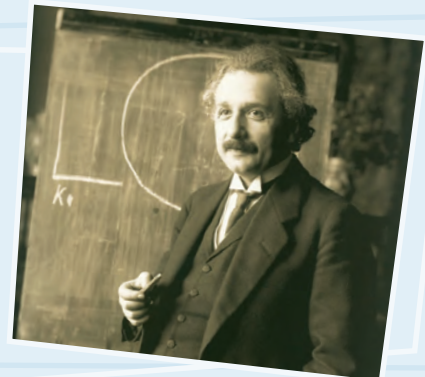


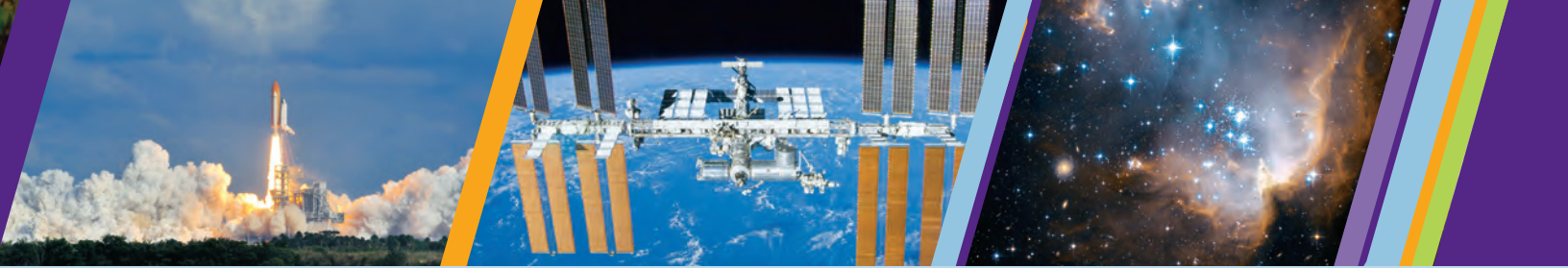
Left: Wendy Lawrence (right) and James Kelly installed new equipment in the Destiny laboratory of the International Space Station (ISS) in 2005. Above: Wendy and her colleagues reached the ISS on the Space Shuttle Discovery.

BACH IN TIME

Born in Germany in 1879, Albert Einstein made discoveries about light, gravity, space, and time. He won the Nobel Prize in Physics in 1921. In addition to science, he enjoyed these two things:

- A) Surfing
- B) Violin
- C) Soccer
- D) Chess





What is the closest Earth-like planet to Earth, and can we get there? –Zara, age 11

Hi, Zara,
Scientists once thought that Mars and Venus were Earth-like. However, we were surprised when we sent spacecraft to study them. The first close-up pictures showed Mars as a barren world. Recent missions found water, so we may still find life there. Venus is covered with clouds, and space probes sent revealed that it has a surface temperature of 880°F (471°C)! These planets are close enough to reach with robot spacecraft. We hope to land people on Mars, and it could be in your lifetime. But it may be centuries before it's possible to visit planets outside of our solar system.



An artist's conception of planet Ross 128 b, with its parent star in the distance.

To find Earth-like planets beyond our solar system, we use Earth and space observatories. If a planet is in the habitable zone around a star—also called the “Goldilocks zone”—it could have liquid water and support life. One of the closest that may be Earth-like is Ross 128 b. It is 11 light-years away. More sophisticated telescopes (such as the soon to be launched James Webb Space Telescope) are needed to learn about this planet's ability to support life.

—Steve



STEVE SCOTTI is *Brilliant Star's* STEM Education Advisor and a research engineer at NASA Langley Research Center in Virginia, U.S. He works to develop lighter, stronger materials and structures for aircraft and spacecraft. Watching the first astronaut launched into space inspired his interest in space exploration, and he enjoys sharing his enthusiasm about science and space with kids.



WENDY LAWRENCE is a retired Navy helicopter pilot and former NASA astronaut. She has over 1,500 hours of flight time and has made over 800 shipboard landings. She flew on the space shuttle four times and has spent over 50 days in space. Currently, she works part-time at Space Camp and the Kennedy Space Center Visitor Complex, informing the public about NASA's spaceflight programs and participating in STEM education programs.

COSMIC QUIZ

The International Space Station was built by 16 countries. Two of the large modules are named:

- A) Peace and Long Life
- B) Action and Adventure
- C) Unity and Harmony
- D) Saturn and Apollo

