

# Why Go To the Moon?

There are almost as many answers to this question as there are craters on the Moon — depending on your interests! The Moon formed from Earth, and holds a record of Earth's early history — a record that has been erased on Earth by restless geologic processes. The Moon will provide scientists with new views of early Earth, how the Earth-Moon system and the solar system formed and evolved, and the role of asteroid impacts in influencing Earth's history — and possibly future!

The Moon presents numerous exciting engineering challenges. It is an excellent place to test technologies, flight capabilities, life support systems, and exploration techniques to reduce the risks and increase the productivity of future missions. Our journey will provide us with the first experience of living and working on another world, allowing us to test advanced materials and equipment in the temperature and radiation extremes of space. We will learn how to best employ robots to support human tasks, explore remote locations, and gather information in potentially hazardous regions. By successfully establishing a presence on the Moon, we will enhance life on Earth and prepare to explore the rest of our solar system — and beyond!

Keeping astronauts healthy in a lower-gravity and higher-radiation environment than Earth is an important challenge for medical researchers. The potential benefits to all humans are tremendous in terms of prevention and treatment of bone and muscle loss and some cancers. Other advances in medicine will follow! Exploration of the Moon also creates new business opportunities for technological innovations and applications and utilization of new resources. Finally, establishing outposts on the Moon enables adventurers and explorers to extend exploration and settlement to planets and moons beyond Earth. There is an entire universe of unknowns waiting for us to investigate!

***Why do YOU think we should journey to the Moon and beyond?***

Exploration of the Moon is a global undertaking. It offers a shared challenge that requires investment by many nations. Success in our journey to the Moon and beyond requires the preparation and involvement of planetary scientists, engineers, medical researchers, physicists, chemists, mathematicians, mechanics, materials scientists, architects, doctors, communications and safety specialists, computer programmers, and many others.

**BE PART OF THE JOURNEY!**