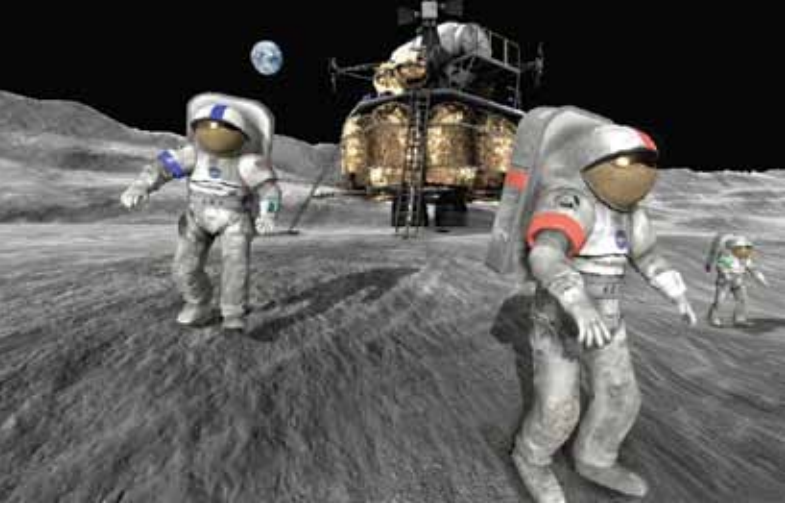
National Aeronautics and Space Administration

Education Spinoffs

Among the many benefits provided by NASA spinoff technologies is the inspiration they provide to classrooms of future scientists and engineers. Whether through satellite imagery, devices for growing cutting-edge materials, or even access to the U.S. National Lab on the International Space Station, NASA's technology transfer programs and the spinoffs they produce offer educators and students unique ways to explore the universe of science, technology, engineering, and math—and to take vital steps toward creating the Nation's newest generation of innovators.



Inspiring Educational Video Games

NASA provided funding to develop an online video game to help inspire the next generation of scientists, engineers, and explorers. The game requires players to use robots and other tools to restore life support on the Moon. It has been downloaded nearly 300,000 times, and an expanded version is in the works.

Offering Schools Affordable Space Research

Using unique research platforms, a NASA partner allows high school and university students a rare opportunity to conduct scientific experiments onboard the International Space Station. The company has also partnered with a national education organization to create a related curriculum.

Image courtesy of Jay Longson and Molly Gibson

Exploring through Imagery

Technology for imaging the landscapes of Mars became a remarkable spinoff allowing students to zoom into exquisitely detailed panoramic photos, zeroing in on a single tree leaf in a broad swath of forest, or the finest details of an ant's leg.

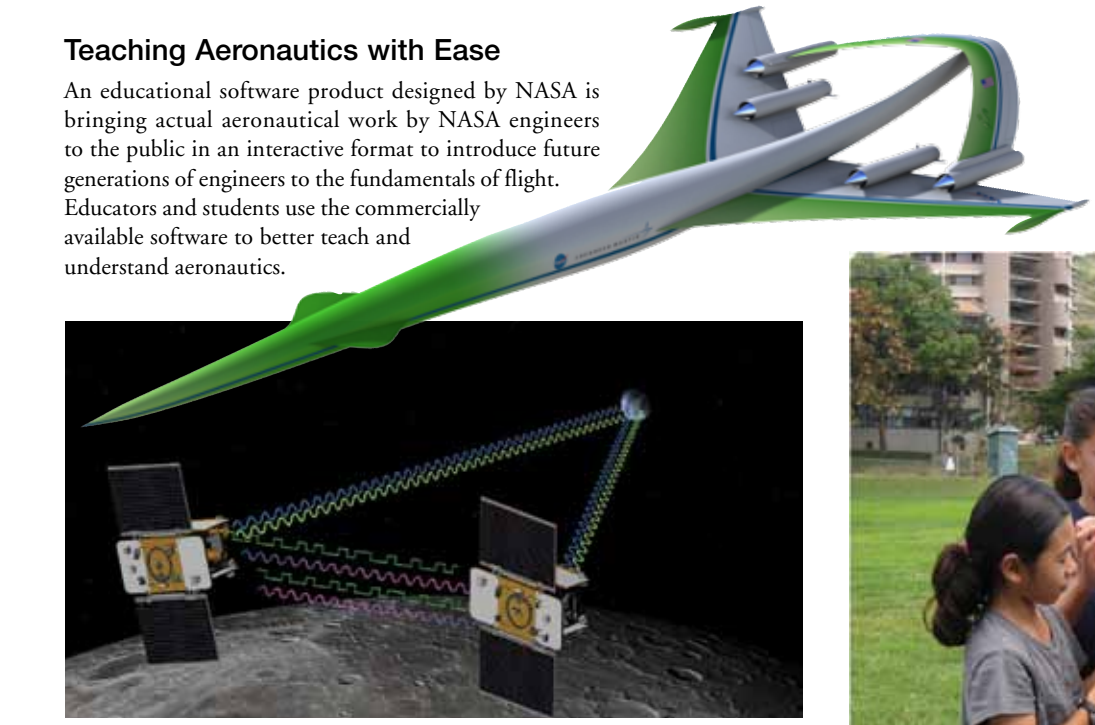
Expanding Research Capabilities

To assist in research on how to improve solar cells, NASA scientists devised a new way to grow high-quality carbon nanotubes. Today, the technology supports the incorporation of carbon nanotubes into education curricula and research, and is in use by students at a number of universities.

Putting the Earth in Students' Hands

A NASA partner employs satellite data to create inflatable globes that depict Earth as seen from space, complete with cloud cover. The globes have educational uses from preschools to universities and for a variety of display purposes at conferences, trade shows, festivals, concerts, and parades.

Teaching Aeronautics with Ease



An educational software product designed by NASA is bringing actual aeronautical work by NASA engineers to the public in an interactive format to introduce future generations of engineers to the fundamentals of flight. Educators and students use the commercially available software to better teach and understand aeronautics.

Bringing Space to the Classroom

NASA's twin GRAIL spacecraft carry the MoonKAM, a video system that allows students to record and retrieve clips of GRAIL's travels for educational activities. The MoonKAM system is enabled by a NASA spinoff technology that has provided stunning videos from the perspective of other NASA spacecraft, including the space shuttles—a boon for engineers and students who plan to one day enter the field.

Involving Students in Science

A Hawaii-based company incorporates NASA technology into its environmental and public health monitoring systems. The company provides its spinoff technology to a university and elementary schools on the islands to help teach students about scientific monitoring and conservation of natural resources.

For more information about NASA spinoffs, please visit **spinoff.nasa.gov**.

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