



National Aeronautics and  
Space Administration

| Educational Service       |                           |
|---------------------------|---------------------------|
| Educators<br>and Students | Grades K-<br>Postdoctoral |

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# NASA On-Line Educational Resources

## NASA Education Home Page

NASA's Education Home Page serves as the Education Portal for information regarding educational programs and services offered by NASA for the American educational community. This high-level directory of information provides specific details and points of contact for all of NASA's educational efforts, Field Center offices, and points of presence within each state. Educators and students utilizing this site have access to a comprehensive overview of NASA's educational programs and services, featuring a searchable database that has cataloged each of NASA's educational programs. In addition, the Education Home Page features access to NASA Education News Releases, NASA's Education Calendar of Events, and schedules for NASA educational Internet and television broadcasts. The site highlights direct access to NASA's on-line resources specifically designed for the educational community, as well as access to home pages maintained by

Visit this resource at the following address:  
<http://education.nasa.gov>

NASA's five areas of research and development (Aerospace Technology, Biological and Physical Research, Earth Science, Human Exploration and Development of Space, and Space Science Enterprises).

## NASA Spacelink



NASA Spacelink is one of NASA's electronic resources specifically developed for the educational community. Spacelink serves as an electronic library to NASA's educational and scientific resources, with hundreds of subject areas arranged in a manner familiar to educators. Using Spacelink Search, educators and students can easily find information among NASA's thousands of Internet resources. Special events, missions, and intriguing NASA web sites are featured in Spacelink's "Hot Topics" and "Cool Picks" areas.

NASA Spacelink is the official home to electronic versions of NASA's Educational Products. NASA educa-

tor guides, educational briefs, lithographs, and other materials are cross-referenced throughout Spacelink with related topics and events. A complete listing of NASA's Educational Products can be found at the following address: <http://spacelink.nasa.gov/products>

"Educator Focus" is composed of a series of Spacelink articles that offer helpful information related to better understanding and using NASA educational products and services. Visit "Educator Focus" at the following address: <http://spacelink.nasa.gov/focus>

Join the NASA Spacelink EXPRESS mailing list to receive announcements of new NASA materials and opportunities for educators. Our goal is to inform you as quickly as possible when new NASA educational publications become available on Spacelink: <http://spacelink.nasa.gov/express>

Spacelink may be accessed at the following address:  
<http://spacelink.nasa.gov>

## Learning Technologies Project

NASA Learning Technologies Project (LTP) is an Agency asset that includes a suite of standards-based Internet projects that teachers and students can use to explore and become involved in NASA missions. On-line interactive projects offer learners the opportunity to communicate with NASA scientists and researchers and to experience the excitement of science as it is happening. As a part of the NASA High Performance Computing and Communications (HPCC) program, the projects of LTP are designed to extend the application of technology to support the educational process. LTP is constantly increasing the quality and variety of learning activities related to science, mathematics, and technology. One LTP project allows remote access to a science-grade telescope from any Internet-equipped classroom. Others introduce technology-based tools to explore aeronautics, Earth science, space science, and robotics. The NASA Quest Learning



Technologies Channel (LTC) offers live and archived multimedia web experiences. LTC incorporates e-mail, chat rooms, audio, video, synchronized graphics, and sometimes NASA Television to offer participants workshops, lectures, seminars, courses, and exciting live events from around the world.

Subscribe to "[list-info@quest.arc.nasa.gov](mailto:list-info@quest.arc.nasa.gov)" to receive bi-weekly updates on exciting opportunities and events being offered through LTC.

The LTP Home Page can be accessed at:  
<http://education.nasa.gov/ltp>

## NASA Television

NASA Television (NTV) is a resource designed to provide real-time coverage of Agency activities and missions, as well as resource video to the news media, and educational programming to teachers, students and the general public. NTV features

For more information on NTV, contact:  
NASA TV  
NASA Headquarters  
Code P-2  
Washington, DC 20546-0001  
Phone: (202) 358-3572

### NTV Weekday Programming Schedules (All Times Are Eastern)

| Video File | NASA Gallery | Education File |
|------------|--------------|----------------|
| 12-1 p.m.  | 1-2 p.m.     | 2-3 p.m.       |
| 3-4 p.m.   | 4-5 p.m.     | 5-6 p.m.       |
| 6-7 p.m.   | 7-8 p.m.     | 8-9 p.m.       |
| 9-10 p.m.  | 10-11 p.m.   | 11-12 p.m.     |
| 12-1 a.m.  | 1-2 a.m.     | 2-3 a.m.       |

Live feeds preempt regularly scheduled programming. Check the Internet for program listings at:

<http://www.nasa.gov/ntv>

NTV Home Page

<http://www.nasa.gov>

Select "NASA TV Schedule"

<http://spacelink.nasa.gov/NASA.news>

Select "NASA Television Schedules"

### Tune in to NTV

Via satellite—GE-2, transponder 9C, C-Band, located 85 degrees west longitude. The frequency is 3880.0 MHz. Polarization is vertical, and audio is monaural at 6.8 MHz. NTV is broadcast through collaborating distance learning networks and some local cable providers. NTV is also available over the World Wide Web from several sources. Please visit <http://www.nasa.gov/ntv/ntvweb.html> to learn about NTV on the Internet.

The NTV Education File can be accessed at:  
<http://spacelink.nasa.gov/education.file>

## Space Education Web site List

### NASA Resources

- [www.education.nasa.gov](http://www.education.nasa.gov) (overview of the NASA Education program)
- <http://spacelink.nasa.gov> (aeronautics and space educational resources)
- <http://spacelink.nasa.gov/ercn> (Educator Resource Centers)
- <http://spacelink.nasa.gov/products> (NASA educational products)
- <http://core.nasa.gov> (multimedia materials for the classroom)
- [http://spacelink.nasa.gov/education\\_file](http://spacelink.nasa.gov/education_file) (NASA Educational Television)
- <http://NASAexplores.com> (articles and lesson plans for K-12)
- <http://teachspacescience.stsci.edu/> (space science education resource directory)
- <http://www.thetech.org/exhibits/online/satellite/home.html> (resource for teaching satellites)
- <http://rotored.arc.nasa.gov> (interactive children's book that introduces aeronautics and rotocraft)
- <http://spacelink.nasa.gov/products/Cassini-Unveiling.the.Myth.of.Saturn/> (educational poster on Saturn)
- <http://spacelink.nasa.gov/Instructional.Materials/Curriculum.Support/Space.Science/Our.Solar.System/>
- <http://spacelink.nasa.gov/products/Liftoff.to.Learning.Brochure/> ("Liftoff to Learning" brochure)
- <http://voyager.cet.edu/iss/challenges/matchallenge/index.asp> (NASA Classroom of the Future)
- <http://spacelink.nasa.gov/products/Microgravity.Bookmark/> (highlights areas of study in microgravity)
- <http://spacelink.nasa.gov/Instructional.Materials/Curriculum.Support/Physical.Science/Microgravity/>

### NASA Aerospace Education Services Program (AESP)

- <http://spacelink.nasa.gov/Educational.Services/NASA.Education.Programs/Support.for.Systemic.Education/Aerospace.Education.Services.Program.-.AESP/> (general information on free educational programs)
- <http://spacelink.nasa.gov/products/NASA.AESP.State.Contacts/> (state contacts)

### General Resources

- [http://spaceresearch.nasa.gov/general\\_info/sts107museum.html](http://spaceresearch.nasa.gov/general_info/sts107museum.html) (space research multi-media presentation for museums)
- <http://Pumas.jpl.nasa.gov> (practical examples of math and science topics for K-12)
- <http://Spacekids.hq.nasa.gov/osskids/education.htm> (space science activities for kids)

## Space Education Web site List

### Johnson Space Center Resources

- <http://education.jsc.nasa.gov> (Johnson Space Center Education and Student Programs)
- [http://www.spacecenter.org/educator\\_resource.html](http://www.spacecenter.org/educator_resource.html) (Johnson Space Center Educator Resource Center)

### AIAA Educational Programs and Pre-College Partners

- <http://www.aiaa.org> (American Institute of Aeronautics and Astronautics)
- <http://www.aiaa.org/Education/index.hfm?edu=2> (AIAA educational programs)
- <http://edu.larc.nasa.gov/connect> (NASA Langley Research Center Education Office)
- <http://whyfiles.larc.nasa.gov/treehouse.html> (NASA Langley Research Center Education Office)
- <http://www.challenger.org> (Challenger Center)
- <http://www.epals.com/> (ePals Classroom Exchange)
- <http://www.aviationeducation.org/> (National Coalition of Aviation Educators)
- <http://www.jets.org/> (The Junior Engineering Technical Society)
- <http://www.spaceday.com/> (Space Day)
- [http://www.capnhq.gov/nhq/aeroed/ETA/AE\\_Home.htm](http://www.capnhq.gov/nhq/aeroed/ETA/AE_Home.htm) (Civil Air Patrol Aerospace Education Program)
- <http://www.usfirst.org> (general information on FIRST Robotics and FIRST LEGO League International)
- <http://mindstorms.lego.com/> (LEGO Mindstorms™)

### Future City Sites

- <http://www.futurecity.org> (general information on Future City competition)
- <http://www.imerc.com/futurecity/> (Phoenix, AZ)
- <http://www.successbeyond.org/fcc.htm> (Minneapolis, MN)
- <http://www.nsbe-ae-stl.org/> (St. Louis, MO)
- <http://www.ospe.org/main.asp?org=2> (Oklahoma City, OK)
- <http://www.futurecityphilly.org/> (Philadelphia, PA)
- <http://www.futurecitypittsburgh.org/> (Pittsburgh, PA)
- <http://www.dfwfuturecity.org/> (Dallas/Fort Worth, TX)

# How to Obtain NASA Videotapes, Slide Sets, and Computer Software

- NASA videotapes, slide sets, and CD-ROM's are available for purchase from the NASA CORE Catalog or through the CORE web site. The catalog can be viewed on line at <http://core.nasa.gov>. A copy of the catalog can be obtained by writing to: NASA CORE, Lorain County JVS, 15181 Route 58 South, Oberlin, OH 44074-9799.
- The Johnson Space Center Media Resource Center loans videotapes to educators. There is no cost for the service. A maximum of fifteen videotapes is loaned for a period of two weeks. The tapes may be copied while on loan. The educator is responsible for return postage. The Media Resource Center catalog is on line at <http://ston.jsc.nasa.gov/mrc/>. The user name is **mrccust** and the password is **shuttle**. Requests for a catalog can also be faxed to 281-483-2848.
- The NASA educational video series, "Liftoff to Learning." is available on line. The "Liftoff to Learning" series was filmed by astronauts on board the shuttle. It features educational videos that focus on mathematics, science, geography, social science and technology. The videos are appropriate for a variety of grade levels and subjects. Printable video guides accompany the videotapes. Videos can be viewed at the NASA Space Team Online web site using Real Player. Real Player is free and available at the NASA Space Team Online web site <http://quest.nasa.gov/space/teachers/liftoff/>.
- Educational videos are available on NASA Television. NASA Television can be received through some cable companies, by satellite, or on line. Programs for teachers and students on science, mathematics, and technology are available. Coordinates and program schedules are available at <http://www.nasa.gov/ntv/> or <http://www.nasa.gov/>. The live shows and all other NTV programs may be taped for later use. During a shuttle mission, twenty-four hour coverage of the mission is provided, including mission day highlight films. Please visit <http://www.nasa.gov/ntv/ntvweb.html> to learn about NASA TV on the web.
- The Johnson Space Center Educator Resource Center will copy a limited number of videos for educators. Educators must supply new videotapes to be used for copying. Multiple titles, a maximum of two hours of video, can be recorded on one tape. If you prefer, a single title can be placed on one tape. Blank videotapes may be sent to the address listed below. For more information on videotapes usually available in the ERC, please check the titles in the CORE Catalog.

**Johnson Space Center Educator Resource Center**  
Space Center Houston  
1601 NASA Road 1  
Houston, Texas 77058  
281-244-2129  
FAX 281-483-9638