NASA Earth and Space Science Education E-News
May 2008
http://nasascience.nasa.gov
http://nasascience.nasa.gov/educators/earth-and-space-science-education-e-news

This monthly broadcast includes upcoming educational programs, events, opportunities and the latest resources from NASA's Science Mission Directorate.

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(1) NASA WEBSITES NOMINATED FOR 2008 WEBBY PEOPLE'S VOICE AWARDS (Winner's Announced May 6)

Two NASA Websites have been nominated for the 12th annual Webby People's Voice Awards. NASA's Earth Observatory (http://earthobservatory.nasa.gov) and NASA's Jet Propulsion Laboratory (http://jpl.nasa.gov) Websites have both been nominated in the category "Science."

The Webby People's Voice honors excellence in 100+ categories including Websites, Interactive Advertising, Online Film & Video and Mobile. Last year, nearly half a million

votes were cast. For more information or to cast your ballot, go to: http://peoplesvoice.webbyawards.com. Winners will be announced May 6.

(2) STEPHEN HAWKING, NOBEL LAUREATES, NASA ADMINISTRATOR AND SCIENTISTS TO VISIT SOUTH AFRICA

World-renowned theoretical physicist Stephen Hawking from Cambridge University, physics Nobel laureates David Gross and George Smoot, and NASA Administrator Michael Griffin, are among an international group of physicists and mathematicians who will visit South Africa in May 2008. Their visit is part of a new initiative to "unlock and nurture scientific talent across Africa, so that within our lifetimes we are celebrating an African Einstein," says Professor Neil Turok, founder and Chair of AIMS - the African Institute for Mathematical Sciences (http://www.aims.ac.za/english/rclaunch.php).

Just one month later, NASA scientists Dr. Jack Kaye and Dr. Ming-Ying Wei will be joining some of the world's youngest scientists as the GLOBE Program hosts its signature youth science event, the GLOBE Student Learning Expedition (GLE) to be held at the University of Cape Town, June 22-27, 2008. GLOBE (Global Learning and Observations to Benefit the Environment) is the world's largest international science education program. Currently active in 110 countries including South Africa, GLOBE students study Earth system science in their own schools and communities and have opportunities to collaborate within the GLOBE network worldwide. The GLE is one such opportunity for students to establish friendships and to develop collaborative partnerships that will enhance their future GLOBE experiences. To learn more about GLOBE, visit: http://www.globe.gov.

(3) DISCOVER THE UNIVERSE WITH NASA DURING THE 2009 INTERNATIONAL YEAR OF ASTRONOMY!

In 2009 we celebrate the 400th anniversary of Galileo's first observations of the universe through a telescope. In honor of this early event, the International Astronomical Union (IAU) and the United Nations have proclaimed 2009 as the International Year of Astronomy to spread awareness of astronomy's contributions to society and culture, stimulate young people's interest in science, portray astronomy as a global peaceful endeavor, and nourish a scientific outlook in society.

NASA invites you to join us in the celebration of IYA 2009. The NASA IYA Website - http://astronomy2009.nasa.gov - will be your portal to exciting NASA resources, events, and opportunities for involvement as we develop our program of regional and national IYA activities for students, teachers, and the public.

(4) SPRING 2008 CASSINI SCIENTIST FOR A DAY CONTEST (DUE MAY 8)

The Cassini Scientist for a Day contest challenges students to become NASA scientists studying Saturn. Participants are challenged to examine three target images taken by the Cassini and choose the one that they think will yield the best scientific results. This

choice must then be explained in a 500-word essay. Participants are competing for the privilege of deciding where to point the cameras onboard the Cassini spacecraft on June 10, 2008.

The contest is open to all students in the United States from grades 5-12, working alone or in groups of up to four students. The essays will be divided into three groups: grades 5-6, 7-8 and 9-12. All submissions must be students' original work. Each student can submit only one entry.

Deadline for Spring 2008 submissions is noon PDT (3 p.m. EDT) on May 8, 2008. For more information, visit http://saturn.jpl.nasa.gov/education/scientist/ or email scientistforaday@jpl.nasa.gov.

(5) FREE NSTA WEB SEMINARS FOR TEACHERS (GRADES 5-9)

From Astrobiology to Zoology: Igniting Students' Interests in Science Careers, May 20
http://learningcenter.nsta.org/product_detail.aspx?id=10.2505/9/WSFAZ08_May20
This Web Seminar features scientists and education specialists from Sally Ride Science. It will focus on the wide variety of science, technology, engineering, and mathematics (STEM) careers available, the many paths to becoming a scientist, and the vibrant men and women involved in science today. Designed for educators of grades 6–9.

Polar Science, Global Discoveries: IPY Research Update for Teachers, May 22
http://learningcenter.nsta.org/products/symposia_seminars/Boston08/IPY-Boston/webseminar.aspx
Featuring scientists and education specialists from NASA, the National Science Foundation, and the National Oceanic and Atmospheric Administration, this Web seminar will focus on global climate change and the research findings from the first year of the 2007-2009 International Polar Year (IPY). Topics will include global climate change, living systems, plants, humans, animals, adaptation, carbon cycle, air, water, migration, and weather. Designed for educators of grades 5–8.

(6) AVOIDING THE FATE OF THE MAYANS (May 6)
NASA PRESENTATION SERIES AT THE LIBRARY OF CONGRESS

The Maya civilization, at its peak, was one of the most densely populated and culturally dynamic societies in the world. But after flourishing for a thousand years, it abruptly disappeared. Thanks to Landsat satellite data and climate models, NASA archaeologist Tom Sever has gained insights into the event known as the Maya Collapse. His findings can inform our lives today.

Sever will present a lecture at the Library of Congress titled "Avoiding the Fate of the Mayans" at 11:30 a.m. on Tuesday, May 6, in the Mary Pickford Theater on the third floor of the James Madison Building, Washington, D.C. The presentation, the second in a series of five programs in 2008, is presented through a partnership between the Library's Science, Technology and Business Division and the NASA Goddard Space Flight Center.

The event is free and open to the public; tickets are not required.

Upcoming programs in the series include:

--June 4, Peter Hildebrand, Earth's Water Cycle in a Changing Climate
--Sept.10, Jim Smith, Space-Based Ornithology: on the Wings of Migration and Biophysics.
--Oct. 21, Jeff Morrisette, Invasive Species in the United States

Webcasts of these presentations will be available at: http://www.loc.gov/rr/scitech/events/events.html#cybercasts (note: the Webcasts are typically not available for at least a couple of months after the event). For more information, go to: http://www.loc.gov/rr/scitech/events/events.html.

(7) NASA OCEAN MISSION EDUCATOR CONFERENCE
June 14-15, Lompoc and Vandenberg Air Force Base, Calif.

NASA's Ocean Surface Topography Mission on the Jason-2 satellite (OSTM/Jason-2) is scheduled to launch on June 15, 2008. An Educator Launch Conference will be held on June 14-15, 2008 (Saturday/Sunday). The conference will have education workshops in the afternoon at Alan Hancock College in Lompoc, and a dinner banquet followed by presentations by NASA and industry scientists and engineers at the Pacific Coast Officer's Club, Vandenberg Air Force Base. Participants will be bussed to see the Jason-2 satellite launch scheduled for 1:47 a.m. on a Delta II launch vehicle from Vandenberg.

OSTM will measure sea surface height to an accuracy of < 4 cm every ten days. Sea surface topography measured by satellite has numerous applications that are important to global environmental monitoring. These include: predicting hurricane intensification, improving tide models, mapping deep ocean bathymetry, monitoring and forecasting El Niño Southern Oscillation, measuring the rate of global sea level rise, and charting surface currents.

The latest information on the Educator Launch Conference, including the agenda and science presenters, go to http://endeavours.org/sec. For more information on NASA's OSTM/Jason-2, visit: http://sealevel.jpl.nasa.gov/mission/ostm.html.

(8) CLIMATE DISCOVERY ONLINE COURSES FOR EDUCATORS -- SUMMER SESSION NOW ACCEPTING REGISTRATIONS

This summer the National Center for Atmospheric Research (NCAR) offers a series of seven-week online courses for middle and high school teachers that combine geoscience content, information about current climate research, easy to implement hands-on activities, and group discussion. The courses run concurrently June 20-Aug. 15 and include: Introduction to Earth's Climate; Earth System Science: A Climate Change Perspective; and Understanding Climate Change Today. There is a $200 fee per course.

For complete course schedule and registration information, visit http://ecourses.ncar.ucar.edu or contact: Sandra Henderson sandrah@ucar.edu.

(9) TEACHER WORKSHOP ON GEOSCIENCE TIME SCALES & GLOBAL CLIMATE CHANGE, July 9-10, UW-Madison

Look backward and forward in time by studying weather for 1 day, 1 week, 1 month; climate for a year, 30 years, 400,000 years; and geology for millions of years. Sessions will include hands-on activities utilizing real-time NASA and NOAA satellite imagery in Google Earth to study the Earth System and detailed discussions of the Intergovernmental Panel on Climate Change (IPCC) 2007 Summary for Policy Makers. Teachers can earn 1 graduate level credit through the UW-Madison's Atmospheric and Oceanic Sciences Department (course # 508). A nominal registration fee of $20.00 is required; otherwise the workshop (including lunches) is free to all educators with lodging provided for educators residing outside of Dane county.

For more information please visit: http://cimss.ssec.wisc.edu/teacherworkshop or contact Margaret Mooney (mooney@ssec.wisc.edu), phone: (608) 265-2123.

(10) CALL FOR ENTRIES FOR THE 2008 DISCOVERY EDUCATION/3M YOUNG SCIENTIST CHALLENGE (Deadline: June 15)

Discovery Education and 3M are partnering with NASA for the 2008 Young Scientist Challenge. Currently in its 10th year, the YSC encourages the exploration of science among America's youth and promotes the importance of science communication at a critical age.

The challenge sponsors are looking for a few great students and teachers who can inspire others with their enthusiasm for science and their ability to communicate. What does it take to be America's Top Young Scientist or America's Top Science Teacher? Students in grades 5-8 and teachers of grades K-12 are being asked to create a short (1-2 minute) video about one of this year's scientific topics, which all relate to this year's theme, "The Science of Space." Participants should enter their videos online and will become eligible to win a trip to Washington, D.C., in the fall to compete in the YSC finals at NASA's Goddard Space Flight Center.

Science teachers who are interested in participating must be members of the Discovery Educator Network (free registration). To become a member, visit http://community.discoveryeducation.com/about/become_discovery_educator. For more information, log-on to http://www.discoveryeducation.com/youngscientist.

On May 6, 5 p.m. CDT (6 EDT), a free Web-based seminar will be provided for teachers, to support and encourage participation in the YSC. To register, visit https://discoveryed.webex.com/mw0305l/mywebex/default.do?siteurl=discoveryed&service=6.

Videos will be accepted through **June 15, 2008.** Finalists will be announced this summer, and the competition finals will take place Oct. 4-7, 2008.

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FUNDING OPPORTUNITIES **[Top]**

(11) OPPORTUNITIES IN NASA SMD EDUCATION AND PUBLIC OUTREACH
Notices of Intent to Propose Due May 15, 2008
Proposals Due July 15, 2008

This opportunity solicits proposals primarily focused on education and public outreach (E/PO) activities in support of NASA's Science Mission Directorate: Astrophysics, Earth Science, Heliophysics, and Planetary Science Divisions. Proposals capable of promoting public understanding of climate science of the Earth system and articulating NASA's contribution to its advancement in recent decades are encouraged. Proposals relevant to the International Year of Astronomy (IYA) are also particularly encouraged. Proposals that address science learning needs across the Divisions are encouraged; however, proposals may target the content of a single Division. While the integration of Earth and space science education is not a primary focus in this amendment, such proposals will also be considered.

E/PO investigations or projects will be selected for a period of up to four years beginning in FY 2008. The anticipated total amount of funds available for new awards under this solicitation is approximately $2M per year over the four-year period. This solicitation is open to a wide range of proposed costs from a few $10Ks for small, focused projects to $100Ks for large-scale projects.

For the full announcement and guidelines, go to:
http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId=%7b163C22F7-FEAD-757E-3F1B-B36FEA860810%7d&path=open.

(12) ENDEAVOR SCIENCE TEACHER CERTIFICATE PROGRAM (ESTCP)
Notices of Intent to Propose Due: May 9, 2008
Proposals Due: June 17, 2008

The NASA Office of Education invites proposals to develop, pilot, and administer the Endeavor Science Teachers Certificate Program (ESTCP). The selected organization(s) will collaborate with NASA to develop, pilot, and administer a competitive, high-quality, national program for pre/in-service teachers. ESTCP will provide one (1) year fellowships, and unique education and technical experiences leading to teacher certification centered on NASA unique science and mathematics content.

NASA expects to award one Cooperative Agreement for this project. The estimated annual value of the award to a higher education institution or a non-profit organization serving higher education students is approximately $500,000 per year, not to exceed a 5-year period of performance. The pilot program is expected to begin about September

2008, with the full implementation beginning about September 2009.

For the full announcement and guidelines, go to:
http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId=%7B724AABB1-5F9E-053B-0CA3-F0FD6F3579D8%7D&path=open.

(13) NASA UNIVERSITY RESEARCH CENTERS AT MINORITY SERVING INSTITUTIONS

Notices of Intent to Propose Due: May 22, 2008
Proposals Due: June 30, 2008

The NASA Office of Education invites proposals for advancing the research capacity and infrastructure at Minority Serving Institutions in NASA-related areas. This CAN will lead to the establishment of multi-disciplinary scientific, engineering, and/or commercial research centers at the host universities.

U.S. colleges and universities designated and listed as Postsecondary Minority Institutions by the Department of Education are encouraged to apply. In addition, applying institutions must offer graduate degrees in engineering, mathematics or science disciplines. For more information about this opportunity, visit http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={C2129545-4629-21BA-67C4-7F22D275E3AD}&path=open.

(14) NASA UNIVERSITY RESEARCH CENTERS TECHNICAL ASSISTANCE WORKSHOP (MAY 12)

The NASA University Research Centers Technical Assistance Workshop will be held on May 12, 2008, from 7:30 a.m. to 4:30 p.m. as a pre-conference event at the Minority Serving Institutions Research Partnerships Conference in New Orleans, La.

This workshop will include a special matchmaking session to provide an opportunity to identify potential partnerships in NASA-related areas of interest with NASA's current prime contractors. The workshop will provide overviews of NASA Education's current priorities and requirements, the NASA mission directorates, and the URC proposal solicitation, proposal development and submission process. Representatives from NASA centers and headquarters will be on hand to interact with participants and answer questions. For more information, visit http://www.msirp2008.com.

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EDUCATIONAL RESOURCES **[Top]**

(15) NASA LAUNCHES NEW SCIENCE MISSION DIRECTORATE WEBSITE

NASA's Science Mission Directorate has launched a new Web site that provides enhanced and engaging information about NASA's vast scope of scientific endeavors and

achievements. The site will provide in-depth coverage of NASA's past, present and future science missions with features that include:

-- Expanded "For Educators" and "For Kids" pages for learning the science behind NASA missions.
-- Interactive tables and searches for Earth, heliophysics, planetary and astrophysics missions.
-- Insight into dark matter and dark energy, planets around other stars, climate change, Mars and space weather.
-- Resources for researchers including links to upcoming science solicitations and opportunities.
-- A mapping of science questions for NASA science missions and the data they produce.
-- A citizen-scientist page with access to resources that equip the public to engage in scientific investigation.
-- Easy-to-navigate design and an improved search engine to help find information.

Visit the new NASA science Web site at http://nasascience.nasa.gov.

(16) WHAT IS A PLANET? (GRADES 9-12)
http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/What_Is_a_Planet.html
During the annual meeting of the International Astronomical Union in the summer of 2006, members in attendance approved a newer definition for "planet" and other bodies in space. In this lesson, students learn about the characteristics of planets, comets, asteroids and trans-Neptunian objects through a classification activity. The students can then apply what they have learned by participating in a formal debate about a hypothetical solar system object discovered by the New Horizons spacecraft and by defining the term "planet."

(17) METEOROLOGY: AN EDUCATOR'S RESOURCE FOR INQUIRY-BASED LEARNING (GRADES 5-9)
http://www.nasa.gov/centers/langley/science/met-guide.html

This guide is written as a supplement to existing Earth and space science curricula for grades 5-9 and informal education. It is not intended to be a complete course in meteorology, rather, to assist educators in instilling excitement in learning about meteorology by permitting the learner to take increasing responsibility for his/her learning. The learner should experience "how we arrive at what we know," rather than memorizing what we know. This publication was developed to enhance the understanding of inquiry-based learning from the educator/teacher's perspective as well as from the learner's perspective.

(18) SPACE MATH PROBLEMS OF THE WEEK (GRADES 7-10)
http://spacemath.gsfc.nasa.gov/

Tidal forces are an important gravity phenomenon, but they can be lethal to humans in the vicinity of black holes. This exercise lets students calculate the tidal acceleration between your head and feet while standing on the surface of Earth...and falling into a black hole. [Skills: scientific notation; working with equations in one variable to first and second power.]

Problem 137 - Chandra / XMM Black Holes---Part V (Grades: 7 – 10)
Students explore how Kepler's Third Law can be used to determine the mass of a black hole, or the mass of the North Star: Polaris. [Skills: Scientific Notation; Working with equations in one variable to first and second power.]

Problem 136 - Chandra / XMM Black Holes---Part IV (Grades: 7 – 10)
Students explore how much energy is generated by stars and gas falling into black holes. The event horizon radius is calculated from a simple equation, R = 2.83 M, and energy is estimated from E = mc^2. [Skills: Scientific Notation; Working with equations in one variable to first and second power.]

(19) NASA EARTH OBSERVATORY FEATURE ARTICLES
Feature articles on the NASA Earth Observatory Website offer an in-depth look at current science topics. Following is a recent article.

Cities at Night: The View from Space
http://earthobservatory.nasa.gov/Study/CitiesAtNight
Astronauts onboard the International Space Station capture photographs of city lights, which provide spectacular evidence of humanity's existence, our distribution, and our ability to change our environment.

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SCIENCE NEWS **[Top]**

For the latest NASA Earth and space science news, visit the Science Mission Directorate website (http://science.hq.nasa.gov/), the NASA Earth Observatory (http://earthobservatory.nasa.gov) or Science@NASA (http://science.nasa.gov). Science@NASA stories are also available as podcasts, as well as translated into Spanish at their sister site, Ciencia@NASA, http://ciencia.nasa.gov/. NASA science is also regularly featured on Earth & Sky radio shows available at http://www.earthsky.org/.

(20) OLDEST KNOWN OBJECTS MAY BE SURPRISINGLY IMMATURE
April 28 - Some of the oldest objects in the Universe may still have a long way to go, according to a new study using NASA's Chandra X-ray Observatory. These new results indicate that globular clusters might be surprisingly less mature in their development than previously thought.

(21) ICY ACTIVE MARS
April 25 - New evidence shows that Mars' climate may have been much more dynamic than previously thought. The research has implications in understanding whether or not Mars could have supported life in its past.

http://astrobio.net/news/modules.php?op=modload&name=News&file=article&sid=2695&mode=thread&order=0&thold=0.

(22) GALAXIES GONE WILD!
April 24 - Today, in celebration of the Hubble Space Telescope's 18th launch anniversary, 59 views of colliding galaxies constitute the largest collection of Hubble images ever released to the public. This new Hubble atlas dramatically illustrates how galaxy collisions produce a remarkable variety of intricate structures in never-before-seen detail.
http://www.nasa.gov/mission_pages/hubble/science/hst_img_20080424.html.

(23) NASA WEB TOOL ENHANCES AIRBORNE EARTH SCIENCE MISSION OF THE ARCTIC
April 24 - Scientists working on an Arctic field campaign - NASA Arctic Research of the Composition of the Troposphere from Aircraft and Satellites mission - have used the Real Time Mission Monitor to help them conduct their field operations. This tool assembles the data from all the research satellites, aircraft and surface sensors and displays the "big picture," overlaid on Google Earth, for the whole team of scientists to view at the same time anywhere during the live mission.
http://earthobservatory.nasa.gov/Newsroom/NasaNews/2008/2008042426583.html

(24) A DOT IN THE VOID
April 23 - Astronomers have constructed an image of material around the star AB Aurigae that appears to be coalescing into a celestial body. The finding will help scientists understand the early stages of planetary formation.
http://astrobio.net/news/modules.php?op=modload&name=News&file=article&sid=2693&mode=thread&order=0&thold=0.

(25) NASA SATELLITES AID IN CHESAPEAKE BAY RECOVERY
April 22 - NASA Earth Science satellites are taking part in the management and recovery of the nation’s largest estuary - the Chesapeake Bay.

(26) FINAL PREPARATIONS UNDERWAY FOR GLAST LAUNCH
NASA's Gamma-ray Large Area Space Telescope, or GLAST, is scheduled for launch not sooner than June 1 from Cape Canaveral Air Force Station, Fla. GLAST is a powerful space observatory that will explore the Universe's ultimate frontier, where nature harnesses forces and energies far beyond anything possible on Earth; probe some of science's deepest questions, such as what our Universe is made of, and search for new laws of physics; explain how black holes accelerate jets of material to nearly light speed; and help crack the mystery of stupendously powerful explosions known as gamma-ray bursts. For more information about the GLAST mission, visit: http://www.nasa.gov/glast.

(27) EARTH'S MAGNETIC FIELD DOES STRANGE THINGS TO THE MOON
April 17 - NASA-supported researchers have realized that strange things may be happening on the full Moon when it gets hit by Earth's magnetic tail.
http://science.nasa.gov/headlines/y2008/17apr_magnetotail.htm?list1022025.

(28) NEW NASA MOON MISSION BEGINS INTEGRATION OF SCIENCE INSTRUMENTS
April 16 - Several instruments that will help NASA characterize the moon's surface have been installed on the Lunar Reconnaissance Orbiter, or LRO. The powerful equipment will bring the moon into sharper focus and reveal new insights about the celestial body nearest Earth.
http://www.nasa.gov/home/hqnews/2008/apr/HQ_08102_LRO_instruments.html.

(29) NASA EXTENDS CASSINI'S GRAND TOUR OF SATURN
April 15 - NASA is extending the international Cassini-Huygens mission by two years. The historic spacecraft's stunning discoveries and images have revolutionized our knowledge of Saturn and its moons.
http://www.nasa.gov/home/hqnews/2008/apr/HQ_08098_Cassini_Mission_Extended.html.

(30) NASA SPACECRAFT FINE TUNES COURSE FOR MARS LANDING
April 10 - NASA engineers have adjusted the flight path of the Phoenix Mars Lander, setting the spacecraft on course for its May 25th landing on the Red Planet.
http://www.nasa.gov/home/hqnews/2008/apr/HQ_08100_Phoenix_Manuever.html.

(31) MOONDUST IN THE WIND
April 10 - Unlike Earth, the firmament of the moon is directly exposed to charged particles from the sun. What happens to moondust under the onslaught of solar wind? Researchers in a NASA-supported lab are finding some surprising answers.
http://science.nasa.gov/headlines/y2008/10apr_moondustinthewind.htm?list1022025.

(32) NASA SETS SIGHTS ON LUNAR DUST EXPLORATION MISSION
April 9 - NASA is preparing to send a small spacecraft to the moon in 2011 to assess the lunar atmosphere and the nature of dust lofted above the surface.
http://www.nasa.gov/home/hqnews/2008/apr/HQ_08095_LADEE.html.

(33) NASA LAUNCHES AIRBORNE STUDY OF ARCTIC ATMOSPHERE, AIR POLLUTION
April 1 – During April, NASA began the most extensive field campaign ever to investigate the chemistry of the Arctic's lower atmosphere. The mission is poised to help scientists identify how air pollution contributes to climate changes in the Arctic.
http://www.nasa.gov/mission_pages/arctas/airborne_study.html.

(34) NASA NOBEL PRIZE RECIPIENT TO FOCUS ON TELESCOPE SCIENCE ACTIVITIES
April 1 - NASA scientist and 2006 Nobel Prize recipient John Mather will devote more of his time at NASA's Goddard Space Flight Center in Greenbelt, Md., to provide additional focus and support as senior project scientist and chair of the Science Working Group for the James Webb Space Telescope. The Webb Telescope, the next step after the Hubble Space Telescope, is a large, infrared-optimized space telescope that is scheduled

for launch in 2013. It will find the first galaxies that formed in the early universe and peer through dusty clouds to see stars forming planetary systems.
http://www.nasa.gov/home/hqnews/2008/apr/HQ_08092_Mather_Release.html.

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CALENDAR **[Top]**

4-6 May 2008
POLAR-PALOOZA National Tour, Anchorage, Alaska, Anchorage Museum of History and Art, Natural History, http://passporttoknowledge.com/polar-palooza/pp04.php.

6 May 2008
NASA/Library of Congress Public Presentation Series: Avoiding the Fate of the Mayans, http://www.loc.gov/rr/scitech/events/events.html.

8 May 2008
Entries due for Cassini Scientist for a Day Contest, http://saturn.jpl.nasa.gov/education/scientist/.

8-10 May 2008
POLAR-PALOOZA National Tour, Fairbanks, Alaska, University of Alaska Museum of the North, http://passporttoknowledge.com/polar-palooza/pp04.php.

9 May 2008
Notices of Intent to Propose Due: Endeavor Science Teachers Certificate Program (ESTCP),
http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId=%7B724AABB1-5F9E-053B-0CA3-F0FD6F3579D8%7D&path=open.

12 May 2008
NASA University Research Centers Technical Assistance Workshop, New Orleans, La., http://www.msirp2008.com.

15 May 2008
Notices of Intent to Propose Due: Opportunities in NASA SMD E/PO,
http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId=%7b163C22F7-FEAD-757E-3F1B-B36FEA860810%7d&path=open.

http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId=%7b163C22F7-FEAD-757E-3F1B-B36FEA860810%7d&path=open.

20 May 2008
NSTA Web Seminar: From Astrobiology to Zoology: Igniting Students' Interests in Science Careers,
http://learningcenter.nsta.org/product_detail.aspx?id=10.2505/9/WSFAZ08_May20.

22 May 2008
NSTA Web Seminar: Polar Science, Global Discoveries: IPY Research Update for Teachers
http://learningcenter.nsta.org/products/symposia_seminars/Boston08/IPY-Boston/webseminar.aspx.

22 May 2008
Notices of Intent to Propose Due: proposals for advancing the research capacity and infrastructure at Minority Serving Institutions in NASA-related areas,
17 June 2008
Proposals Due: Endeavor Science Teachers Certificate Program (ESTCP),
http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId=%7B724AABB1-5F9E-053B-0CA3-F0FD6F3579D8%7D&path=open

24-25 May 2008
POLAR-PALOOZA National Tour, Raleigh, North Carolina Museum of Natural Sciences, http://passporttoknowledge.com/polar-palooza/pp04.php.

25 May 2008
Phoenix Mars Mission lands, http://phoenix.lpl.arizona.edu/.

31 May 2008
Deadline to apply for 2008 Penn State Science Workshops for Educators
http://teachscience.psu.edu.

31 May – 4 June 2008
2008 Annual Meeting of the Astronomical Society of the Pacific: "Preparing for the 2009 International Year of Astronomy: A Hands-On Symposium,"
http://www.astrosociety.org/events/meeting.html.

1 June 2008
NASA's Gamma-ray Large Area Space Telescope (GLAST) launch,
http://www.nasa.gov/mission_pages/GLAST/main/index.html.

4 June 2008
NASA/Library of Congress Public Presentation Series: Earth's Water Cycle in a Changing Climate, http://www.loc.gov/rr/scitech/events/events.html.

14-15 June 2008
OSTM/Jason-2 Educator Launch Conference, http://endeavours.org/sec.

15 June 2008
NASA launches the Ocean Surface Topography Mission on the Jason-2 satellite,
http://sealevel.jpl.nasa.gov/mission/ostm.html.

15 June 2008

Deadline for entries, 2008 Discovery Education/3M Young Scientist Challenge, http://www.discoveryeducation.com/youngscientist.

20 June – 15 Aug.
Climate Discovery Online Courses for Educators, http://ecourses.ncar.ucar.edu .

22-27 June 2008
MY NASA DATA 2008 summer workshop for teachers, Hampton, Va, http://mynasadata.larc.nasa.gov/workshop.html.

22-27 June 2008
GLOBE Student Learning Expedition, University of Cape Town, http://www.globe.gov.

30 June 2008
Proposals Due: NASA University Research Centers at Minority Serving Institutions, http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId=%7BC2129545-4629-21BA-67C4-7F22D275E3AD%7D&path=open.

9-10 July 2008
Teacher Workshop on Geoscience Time Scales & Global Climate Change, UW-Madison, http://cimss.ssec.wisc.edu/teacherworkshop.

13-19 July 2008
Floods and Flows: Exploring Mars Geology on Earth, field experience for middle school science teachers, http://www.lpi.usra.edu/education/fieldtrips/2008/.

15 July 2008
NASA launches the Interstellar Boundary Explorer (IBEX), http://www.ibex.swri.edu.

15 July 2008
Proposals Due: Opportunities in NASA SMD E/PO, http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={C2129545-4629-21BA-67C4-7F22D275E3AD}&path=open.

8 Aug. 2008
NASA launches Geostationary Operational Environmental Satellite (GOES)-O, http://goespoes.gsfc.nasa.gov/goes/index.html.

10 Sept. 2008
NASA/Library of Congress Public Presentation Series: Space-Based Ornithology: on the Wings of Migration and Biophysics, http://www.loc.gov/rr/scitech/events/events.html.

21 Oct. 2008
NASA/Library of Congress Public Presentation Series: Invasive Species in the United States, http://www.loc.gov/rr/scitech/events/events.html.

15 Dec. 2008
NASA Launches the Orbiting Carbon Observatory, http://oco.jpl.nasa.gov.

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