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February 2-4, 2012

18th Annual **Space Exploration Educators Conference**

**SPACE  
CENTER**  
**HOUSTON**

**EXPLORING NEW  
HORIZONS**



**Session Descriptions**  
**Thursday February 2nd.**

## 10:00AM-11:30AM

### **Aerospace Connections in Education: Be an ACE teacher!**

*Angie St. John, Civil Air Patrol*  
*Judy Stone, Civil Air Patrol*

Create a high-interest, high-achieving, motivated ace classroom with Civil Air Patrol's Aerospace Connections in Education (ACE) Program for grades K-6! You'll receive 9 aerospace lesson plans, a NASA aeronautics CD, a set of solar system cards, and you'll learn how to connect aerospace to your grade's curriculum. We'll make flying Fun Shuttles and Geobats! Door prizes!  
Grades: K-5    Subjects: Cross Curriculum

### **Art In Space**

*Kimberly Joiner*  
*Chelsea Fielder*

Creativity and space collide in an exciting session of Art in Space. In this session we will be sharing and creating some fun art ideas dealing with the topic of space and space exploration. This session will show you how students can show off their creativity while learning about space.

Grades: K-2    Subjects: Fine Arts

### **Astronaut Rescue**

*Suzanne Foxworth, Solar System Educator*  
*Michael Myers, Liftoff & SEEC Alumni*

Teachers will engage in a rescue mission of a stranded space shuttle where they will use their Critical thinking skills to eliminate and discover possible locations for the shuttle. This lesson will use skype to simulate communication between a space station and mission control. CDs with material are provided.

Grade: 3-8    Subjects: Sci, Tech, Math

### **Dancing With The STARS!**

*Lauren Heger*

Have you ever wondered how you could get your students out of their seats and directly into their science? This workshop will lead you through a lesson in space science through dancing! Don't worry, no skill is required for this session, just the ability to get up and get moving. We will learn about the sun, the stars, and the states of matter all through the wonderful world of dance. Wear some comfortable shoes and get ready to boogie!

Grades: K-5    Subject: Sci, PE

### **Fly To The Edge Of The Galaxy and Back**

*Daniel W Bateman, Spaceport Sheboygan*

*Uniview* brings the galaxy to your classroom. We will explore using *Uniview* Software in the classroom to teach about astronomy and earth science. We can take a spin around earth or to the edge of the known galaxy. You will take the driver seat.

Grade: 6-12    Subject: Sci, Tech, SS

### **Having A Blast with Science and Literacy**

*Lisa Brown, NASA*

"Mass" and "Weight" have very different meanings and are often incorrectly used. Newton's Laws of Motion and an education video filmed on-board the International Space Station by astronauts will be integrated to explore these two terms. NASA inquiry activities will be utilized in this workshop. Come experience and enjoy this "Heavy-Duty" topic.

Grades: 6-8    Subjects: Sci, Math

### **Messenger: Taking The Nation Back To Mercury**

*Anita Salinas, Mobile County PS/NASA Messenger Educator Fellow*

*Dianne S. Martin, Mobile Area Education Foundation*

The Messenger spacecraft has braved the scorching energy from our Sun. Experience the scientific process in action while exploring solar energy. Detect invisible components of radiations by participating in activities your students will love. Find out where to find more current and fun hands on space activities.

Grades: K-12    Subjects: Sci, Tech

### **NASA's Educator Resource Center and You!**

*Elaine Lapka, NASA, Educators Resource Center*

ERC staff is your guide to NASA educational programs and standards-aligned K-18 teaching resources on line, on paper, on tape, and on disc. Bring your laptop to this session to explore lessons, activities, simulations, and inter-actives for all disciplines, emphasizing STEM. You will also create and share your own slide show of NASA images using Luna software online.

Grades: K-12    Subjects: Cross Curriculum

## **NASA's Digital Learning Network and You**

*Patricia Moore, NASA Johnson Space Center Digital*

*Learning Network*

Enhance your lessons with FREE live connections to NASA's Digital Learning Network (DLN). Give your students the amazing opportunity to speak LIVE with NASA engineers, scientists and education specialists! Session participants will travel onsite to the Johnson Space Center DLN studios to receive a studio tour, conduct hands-on activities and flex their DLN presenting muscles on camera. Participants will be given a video recording of their on-camera experience and ready-to-implement lesson plans.

Grades 3-12    Subjects: Sci, Tech, LA, SS, Math, PE, His

## **Opportunities For Lunar Science In Your Classroom**

*Christine Shupla, Lunar Planetary Institute*

*Yolanda Ballard-Zimmermann, Lunar Planetary Institute*

Come be inspired by lunar science! Check out original lunar phases activities and assessments, data-rich inquiry research projects, and a team activity that uses recent data from the lunar south pole to investigate possible sites of future lunar bases! Discover opportunities to attend free week-long summer institutes, and more!

Grades: 6-12    Subjects: Science

## **Steam Engines to Stars**

*Lynne F. Zielinski, Yerkes Observatory*

*Margie Corp, Orenic Intermediate School & NASA NEAT*

Learn how stars operate like steam engines through a series of classroom-ready activities. Gain an historical and technical understanding of heat and temperature. Learn ways of seeing thermal energy, build a steam engine, and infrared filter adapters for your digital camera. Be surprised by a metal cube and black box.

Grades: 6-12    Subjects: Sci, Tech, His

## **Stem- Changing The Game**

*Richard Healey*

*Mike Crocott*

This hands on workshop presented by teachers from the UK seeks to inform and inspire teachers to combine space technology and games creation applications to engage students in STEM subjects and to achieve higher standards by enhancing learning. The use of free or low cost software and apps will be featured in addition to ubiquitous devices such as PSPs, iPads and smart phones that can be effectively integrated into programs of study. The session will also feature how the PlayStation game "Little Big Planet" is being used in education. No experience required!

Grades: 6-8    Subjects: Sci, Tech, Math

## **Stories from Space! Human Spaceflight knowledge and COOL lessons for your classroom.**

*Michael Lutomski, NASA/ISS Program*

*Monica Trevathan, NASA Human Research Program*

*Educational Outreach*

NASA has inspired us for decades! How can you employ this exciting history and the future of exploration to motivate students? Learn about human space flight via first-hand stories from a NASA veteran. Access "classroom ready" activities for your classroom (grades 3-12). This educational material focuses on Human Spaceflight and STEM.

## **The Amazing Space Race**

*Michelle Sedberry, Lubbock ISD*

*Shields Templeton, Ruthford County TN*

This fast paced adventure allows participants to race through 4 science games: Kerplunk, Moon Phase Tile Game, Space Concentration and Earth, and Moon Sun Toss. These stations will review general Space knowledge, Space vocabulary and much more. You will leave the session with a CD of all activities from the session!

Grades: 3-5    Subject: Science

## **To Infinity and Beyond: The Journey of a Model Rocket**

*Brian Krauklis, Nottingham Country Elementary/Katy ISD*

Become a rocket scientist (literally) and have a blast as we build and launch Estes model rockets. Learn how to use model rocketry as a way to teach Newton's 3 Laws of Motion and demonstrate how NASA gets astronauts and their equipment into orbit. Model rockets are provided (that you get to keep) along with the fun.

Grade: 3-12    Subjects: Science

## **Up, Up & Away With Astrobiology and Scientific Ballooning**

*Sharon Eggleston, Maine Space Grant Consortium and*

*Lockheed Martin*

*Diane Bowen, Maine Space Grant Consortium and Brunswick*

*Jr. High School*

Join us and travel to the edge of space to see what harsh conditions can support life. Learn how to engage your students in authentic scientific research experiences. This session will challenge students to look beyond Earth's boundaries to seek answers to questions such as 'Are we alone, Does life exist elsewhere in our universe, What is life, What is an Extremophile?'

Grade: 9-12    Subjects: Sci, Tech, Math, Engineering

# Tour listed on page 8

## 12:45PM-2:15PM

### **A Satellite in the Classroom**

*Margot Solberg, Academia Cotopaxi*

Utilizing free software, students of all ages can be taught how to download, analyze and apply real-time satellite images in the classroom. This real-life learning has been shown to motivate students in all areas of the curriculum, and was also showcased at the 2010 International Astronautical Congress in Prague!

Grades: K-12    Subjects: Sci, Tech, LA, Math, FA, SS

### **An Eagle's Eye View From Above (Double Session)**

*Dorinda Risenhoover, Oklahoma NASA Space Grant Consortium*

*Rosa Denton, Oklahoma NASA Space Grant Consortium*

Pack your bags and get ready to take a journey from the Earth to space as we delve into the excitement and wonders of remote sensing! From maps, 3D topographical map models, aerial photographs, satellite images, and all the way to the GPS, come be immersed in hands on activities!

Grade: 3-8    Subjects: Sci, Tech, LA, SS

### **Create An Alien!**

*Bobby Gagnon, Space Foundation*

*Bryan DeBates, Space Foundation*

See animals from another planet! Students are fascinated by animals from Earth. They are amazed by space and other planets. Let's bring both of them together! This session gives participants an opportunity to create new life forms. Teachers will receive activities and resources to teach adaptations and Language Arts skills.

Grades: K-2    Subjects: Sci, Tech, LA, Math, FA

### **Digital Storytelling and the Space Program**

*Gary Kitmacher, NASA/ University of Houston*

Digital Storytelling is the practice of using computer-based tools to tell stories. As with traditional storytelling, most digital stories focus on a specific topic and contain a particular point of view. However, as the name implies, digital stories usually contain some mixture of computer-based images, text, recorded audio narration, video clips and/or music. Digital stories can serve a new way for students to learn about the space program and to tell the story of the space program to others. During this session attendees will receive a copy of the Space Exploration Digital Storytelling Guide. An overview of the Guide will be presented, examples of digital stories will be shown, and examples of the use of digital image and video software will also be demonstrated.

Grades: 6-8    Subjects: Cross Curriculum

### **Folding Space– A Fun Look at Literacy and Space Science**

*Lynne Hehr, University of Arkansas Center for Math and Science Education*

*John Hehr, University of Arkansas, Department of Geosciences*

Join this hands-on, fast-paced session to explore the connections between foldables, note-booking, language arts, children's literature, and space science. Participants will receive loads of lessons tied to favorite literature while exploring note-booking and foldables that relate to space science activities.

Grades: K-5    Subjects: Sci, Math, Tech, LA

### **Guess What? This Experiment is "SICK"!**

*Carrie Leopold, M.Ed, North Dakota State College of Science*

*Lisa Brown, NASA-AESP*

Find out why the girls participating in our GUESS program, Girls Understanding and Exploring Stem Stuff, are calling their experiments "sick" and why that's not a bad thing! This program gives middle and high school girls an opportunity to spend a day conducting hands-on experiments led by female professors.

Grades: 6-12    Subjects: Sci, Tech, Math

### **ISS Construction Simulation (Dive Session) (Double Session)**

*Craig Shannon,*

Train like astronauts in this exciting session! You will participate in underwater training exercises using SCUBA gear in a local indoor pool. You must be in good health and ready to get wet! . Bring a swimsuit and towel. Participants must attend the mandatory meeting on Thursday, February 3rd at 7:15 AM. Additional \$35 charge for this session

Grades: k-12

## **Journey To The Edge Of The Solar System**

*Lauren Parker, NASA Heliosphysics Educator Ambassador  
Jayma Koval, NASA Heliosphysics Educator Ambassador*

Come learn all about the influence of our sun in this hands-on workshop focused on solar output and the effects it has on Earth and our Solar System. Participants will connect activities on the four states of matter and the electromagnetic spectrum to NASA's solar missions. NASA giveaways included!

Grades: 6-8    Subjects: Science, Technology

## **Light and Color**

*David Temple, Longview High School  
Brandon Pigeon, Longview High School*

An interactive workshop that will explore light and color. Participants will use lasers and hand held spectrometers to examine emission spectrums, as well as investigating why the sky is blue and the reason we use a red, orange or yellow crayon when we draw the sun.

Grades: 9-12    Subjects: Science, Technology

## **MoonKAM: Exploring Lunar Images**

*Leesa Hubbard, Sally Ride Science  
Dr. Karen Flammer, Sally Ride Science*

Learn about NASA's GRAIL mission, which places two satellites in orbit around the Moon in March 2012 to precisely map the Moon's gravity. Each satellite carries special MoonKAM cameras. Your middle school students will be able to request images of the lunar surface during the 80-day science phase. Learn how, while participating in engaging hands-on activities to teach lunar science and what can be seen in pictures of the lunar surface.

Grades: 6-12    Subjects: Sci, Tech, Math, His.

## **NASA Do It Yourself Podcasting**

*Becky Kamas, NASA Education Specialist*

Learn about the Do-It-Yourself Podcast site and be led step-by-step through building your own audio and video podcasts. We will share ideas for creating excellent products and evaluating student podcasts. NASA's DIY Podcast makes it easy to find and download multimedia content for building podcasts with students. Bring your ear buds.

Grades: 3-8    Subjects: Sci, Tech, LA

## **Out of the Classroom; Into the Sky! Civil Air Patrol's Teacher Orientation Program (TOP) Flight! (Double Session)**

*Susan Mallett, Civil Air Patrol  
Debbie Dahl, Civil Air Patrol*

K-12 teachers! Come join "ground school" and free flight over Houston! This double session will include hands-on activities and free materials. Cameras encouraged!!! NOTE: Need CAP ID# to participate. After registering for this SEEC session, get your CAP ID# by going to [www.capmembers.com/joinaem](http://www.capmembers.com/joinaem) and use Coupon Code SEEC12 for a special 1/2 price (\$17.50) offer.

Grades: K-12    Subjects: Sci, Tech, LA, SS, Math, His

## **Roving Mars**

*Leigh Schwarzel, Morrison-Gordon Elementary  
Nicole McKnelly, Huntsville High School*

Have you ever wanted to learn how Earth and Mars are alike? Are you curious about how we are currently exploring Mars? In this session you will participate in hands-on activities that will help you to answer these questions in your classroom. Lesson CD included.

Grades: 3-8    Subjects: Science, Technology

## **The Solar System is YOUR Neighborhood**

*Adair Teller, JPL Solar system Educator  
Paula Garrett, JPL Solar system Educator*

This is designed for teachers of k-2 students. We will describe the Solar System and our Sun as the neighborhood in which the Earth lives. The Earth is our home and the Solar System our community. This meets the k-2 standards for social studies and science. Hands on activity will be decorating cookies to model our Sun and planets. The more senses used by these young students, the more they learn and the more they retain! Sun and Yum!!

Grades: K-2    Subjects: Sci, LA, SS

## **Teaching Science with an Astronomy Twist**

*Catherine Ryan, Alvin High School*

Incorporate astronomy into your lessons on earth science, physical science, energy and even the scientific method. The Sun is the source of almost all energy on the Earth—even the wind. Come see how you can use the wind to teach such concepts as convection currents, wind power, the Coriolis effect, Bernoulli's Principle, dependent and independent variables, and even engineering design. Take a free table top wind turbine home for attending.

Grade: 3-12    Subjects: Science

# Tour listed on page 8

**2:45PM-4:15PM**

## **Ariss- You Can Talk To Astronauts**

*Brian Jackson, Ralph McCall School*

Come and find out what it takes to talk live to astronauts on the ISS. Using amateur radio equipment, you and your students can ask questions as the station passes over your head. It will be a moment you will never forget!

Grades: K-12    Subjects: Sci, Tech, LA, Math, FA

## **Butterflies, Spiders, plants– Real Space Science in Your Classroom!**

*Dee Mock, Baylor College of MEDICINE, Center for Educational Outreach*

Do real science in your classroom. Have your students conduct science investigations in 1-G while ISS astronauts conduct them in microgravity. Learn what happened during the STS-134 “Spiders in Space” investigation. Join thousands of teachers and students around the world and get ready for the next flight opportunity.

Grades: K-5    Subjects: Sci, Tech, LA, Math, His

## **EarthKam: Taking pictures of the Earth from Space**

*Julie Miller, Sally Ride Science*

*Dr. Karen Flammer, Sally Ride Science*

Your students can take pictures of the Earth from the ISS with NASA/EarthKAM! Learn how to get your students involved, while participating in engaging, hands-on activities. Teachers will learn how EarthKAM engages students in understanding geography, maps and Earth’s surface geology. They will use EarthKAM images to investigate features such as urban areas, water sheds, glaciers and river deltas.

Grades: 6-12    Subjects: Sci, Tech

## **Flight Mission Challenge: Improving Earthquake Monitoring**

*Christy Garvin, NASA EPDN & Vaughan Elementary*

Earthquakes and earth science at a space conference? Come learn about a new NASA design challenge and free online course that provides your students the opportunity to earn a trip to Dryden Research Center. Plot major earthquakes and volcanoes using bathymetric maps, plan a flight for the Gulfstream III, delve into swath geometry, and learn to interpret interferograms as you plan a UAVSAR data collection mission. Free resource CD.

Grades: 6-12    Subjects: Sci, Tech, Math

## **K-2 and Technology Too!**

*Kerri Travis*

*Sarah Niklas*

Space is a complex subject for children in the kindergarten and first grade levels. In this session, we will take you through a daily rotation using space in all aspects of the curriculum; including math, reading, science, writing art, physical development and technology. Your students will meet the expectations you set.

Grades: K-2    Subjects: Sci, Tech, LA, Math, PE, FA

## **Kepler and the Search for Exoplanets**

*Elias Molen, Space Foundation*

*Jason DaLee, Space Foundation*

As astronomers continue their searches for planets outside of our solar system, they employ a variety of methods to locate these mysterious bodies. This session will provide hands-on activities demonstrating the principles and methods used to find planets around other stars.

Grades: 9-12    Subjects: Sci, Math, Tech

## **On The Moon: NASA’s STEM Engineering Design Challenges**

*Susan Kohler, NASA Glenn Research Center*

NASA’s *On the Moon STEM* activities are effective, innovative ways to engage students in the engineering design process, encourage their interest in space exploration, and inspire them to pursue a career in engineering. In this workshop participants will complete the challenge to design an AIRCRAFT to land “astronauts” on the moon and an air powered rocket to launch to the moon.

Grades: 3-8    Subjects: Sci, Tech, Math, FA

## **Orion 101**

*Stuart Mcclung, Lockheed Martin*

Hear the latest on our nation’s new exploration vehicle, see videos from the latest Orion test programs, Q& A with one of the engineers from the Orion team, and get info on links to the Orion/MPCV e-media sites.

Grades: K-12    Subjects: Science

## Shakin Quakes and Rocks

*Jenny Wallace, Brook Hill School*

*Melanie Causey, Holloway 6th School*

Are you ready for a “moving” experience here on our planet Earth? Cupcakes, marshmallows and cardboard boxes are all used to take core samples, experience plate tectonics and observe damage of different seismic waves. You will never look at Earth the same again!

Grades: 6-8    Subjects: Science

## Spaced Out Sports

*John Boffenmyer, Jacobs Inc at Stennis Space Center*

*Emma Seiler, Jacobs Inc at Stennis Space Center*

“Spaced Out Sports”, a NASA student design challenge, is a full session of hands-on activities that apply Newton’s Laws of Motion to explore the effect of gravity on an object on earth and in the microgravity environment of the ISS.

Receive templates, activity CD, poster, bookmark and much more.

Grades: 3-8    Subjects: Sci, Tech, Math, PE

## Spheres of Earth

*Christi Lesikar, Dallas ISD Lang M.S.*

*Carol J Hordge, Dallas ISD Lang M.S.*

\*Please bring your laptop computer\* This inquiry-based 5 E Model lesson will take an up-close look at individual Earth Systems to associate features (weathering, erosion, deposition) from satellite images. Interact with Texas 7th/8th grade students via Interactive Video Conferencing.

\*RECEIVE A CD WITH TEACHER/ STUDENTS GUIDES AND IMAGES\* Door prizes!

Grades: 6-12    Subjects: Sci, Tech, SS, His

## S.T.E.M Lesson Planning– The Who, What, & Where

*Barbara Gosney, Paradise Valley Unified School*

S.T.E.M is the ultimate frontier for teachers! Join the Star Ship Education and explore the different styles of teaching in a S.T.E.M classroom. Seek out NEW lesson plan formats! Explore new resources for the students! And Boldly go where no classroom has gone before!! We will be utilizing vast NASA resources as well as the NASA Explorers School in lesson plans. View various web resources as well as your local resources with “new eyes”. The use of technology will be highlighted in this presentation.

Grades: K-8    Subjects: Sci, Tech, LA, Math

## The Real Lord of the Rings

*Lisa Brown, NASA-AESP*

Description = This session will introduce teachers to NASA activities about Saturn. It is a set of lessons that enhance basic communication skills through scientific exploration and the Cassini-Huygens mission to Saturn. Throughout the lessons, participants practice a variety of language arts skills, including descriptive writing, note-taking, poetry, illustration and oral communication.  
Grades K-2

## Using NASA Museum Exhibits to Teach the History of Human Spaceflight

*Sherre Boothman, Lehman High School, Hays CISD*

*Laura Baiza, Lehman High School, Hays CISD*

Using the museum section of the Space Center Houston and the Saturn V Pavilion, we will conduct a walking tour of the history of human spaceflight. The materials will include a complete listing of all human spaceflights. The tour will focus on details of the spacecrafts used and highlights of explorations conducted by the crews. Along with session materials, participants will receive a DVD with details on each spacecraft flown by the USA with prepared units for Newton’s Laws of Motion in science, and the birth of NASA from the Cold War in the 1950’s-1970’s for social studies classes. The future of human spaceflight will also be discussed.

Grades: 6-12    Subjects: Sci, Tech, SS, His

Please follow us on [Facebook](#) or [Twitter](#) #SEECatSCH to stay updated on conference news and schedule changes.

# Tour listed on page 8

## TOURS:

### **AIRCRAFT OPERATIONS TOUR**

A plane that creates free-fall, high altitude research aircraft, T-38's, and other NASA aircraft... Johnson Space Center's Aircraft Operations has it all! Hear how aeronautics is a part of the future of space exploration.

### **ANTENNA AND TRACKING DEVELOPMENT**

This tour includes several facilities and laboratories including the Anechoic Chamber, used to evaluate properties of antennae and other radiating objects. engineering issues.

### **ENERGY SYSTEMS TEST LABORATORY (Pyrotechnics)**

Visit the area that supports testing of pyrotechnically actuated devices. The facility includes explosive loading and handling room, and pyrotechnic storage in earth covered bunkers. Sophisticated equipment, such as the laser interferometer for measuring speeds of up to 10,000 m/s is available in the B352 complement of instrumentation.

### **FOOD LAB TOUR**

Yummy...Astronaut Food! Have you ever wondered how space food is prepared and packaged? Visit the food laboratory at Johnson Space Center and see first hand. Learn how nutritionists, dieticians, and engineers prepare food for flight.

### **HUMAN SPACE FACTORS LAB**

Come and see a variety of laboratories used to accommodate the human factor of spaceflight from physical aspects to engineering issues.

### **HABIT DEMONSTRATION UNIT**

Tour NASA's conceptual, human-centered design studio. The HDC creates opportunities for design to solve the unique challenges of living and working in extreme environments, providing advanced concepts to the NASA community using Human Factors as a design tool to develop products, systems, and architecture.

### **LUNAR LAB**

Be one of the few who get to see the Lunar Sample Laboratory. This laboratory is used to house and analyze over 800 pounds of geologic samples from the moon.

### **MISSION CONTROL TOUR**

Once the manned spacecraft have launched, Houston Mission Control takes over. Visit this secure location and see the rooms where history happened. You will be able to see both Historic Mission Control and ISS Control rooms.

### **NEUTRAL BUOYANCY LAB TOUR**

Take a trip to the largest pool in the world where astronauts practice for their spacewalks—the NBL. This facility is the underwater training facility for the astronauts and your chance to see state-of-the-art training—the next best thing to space!

### **ROBOTICS LAB TOUR**

Space can be a dangerous place and there are corners that humans just can't reach. Come peek inside the robotics lab at Johnson Space Center and see what engineers have developed to aid the astronauts in construction and maintenance.

### **SPACE VEHICLE MOCK-UP FACILITY(SVMF)**

Explore the training grounds for the astronauts. See full size mock-ups Space Station and Orion. It also includes several other small part task trainers and mockups.

### **IMPORTANT NOTICE PLEASE READ CAREFULLY**

- Your visit to the Johnson Space Center (JSC) is a special event. You will be entering working facilities subject to strict safety and security policies. Please follow the direction of your host escort at all times.
- It is essential that all members of the group stay together and not venture from their JSC escort. Wandering into restricted areas constitutes a security violation and could result in the termination of your visit.
- Your visit will require walking and standing for extended periods and may involve climbing several flights of stairs. Guests should wear comfortable, flat, fully-enclosed shoes (**no high-heels, sandals, flip-flops, slides, mules, Crocs, etc.**) during their visit. We also recommend that guests wear slacks (instead of shorts or skirts) as an additional safety precaution.
- Cameras are welcome in all facilities unless instructed otherwise. However, photography of individuals is discouraged without permission.

### **ATTENTION ALL NON-U.S. CITIZENS**

If you are not a U.S. citizen, you must fill out a JSC Security Form in order to attend the NASA Tours. Please go to the SEEC website for more information and to download the form.

# SEEC 2012 Session list

## Thursday Feb 2, 2012

### 10:00AM– 11:30AM

- Aerospace Connections in Education: Be an ACE teacher!
- Art In Space
- Astronaut Rescue
- Dancing With the STARS!
- Fly to the edge of the Galaxy and Back
- Having A Blast with Science and literacy
- Messenger: Taking The Nation Back To Mercury
- NASA's Digital Learning Network and You
- NASA's Educator Resource Center
- Opportunities For Lunar Science In Your Classroom
- Steam Engines to Stars
- STEM- Changing The Game
- Stories from Space! Human Spaceflight
- The Amazing Space Race
- To Infinity and Beyond: UP, Up & Away

#### Tours

- Food Lab
- Lunar Lab
- Neutral Buoyancy Lab (NBL)
- Energy Systems Test Lab (Pyrotechnics)
- Robotics
- Vehicle Mock-Ups
- Habitability and Human Factors
- Spacesuit Tour

### 12:45PM–2:15 PM

- An Eagle's Eye View From Above (Double Session)
- Create an Alien!
- Digital Storytelling and The Space Program
- Guess What? This Experiment is "SICK"!
- Folding Space– A Fun Look at Literacy and Space Science
- Journey to the Edge of the Solar System
- Light and Color
- MoonKAM: Exploring Lunar Images
- NASA Do It Yourself Podcast
- Roving Mars
- Satellite In the Classroom
- Teaching Science with an Astronomy Twist

- The Solar System is YOUR Neighborhood
- Take a Flight- Out of the Classroom; Into the Sky! (Double Session)

#### Tours

- Aircraft Ops (Ellington Field) Double Session
- Anechoic Chamber
- Lunar Lab
- Mission Control Center
- Neutral Buoyancy Lab (NBL)
- Energy Systems Test Lab (Pyrotechnics)
- Robotics
- Habitat Demo Unit and Morpheus
- Spacesuit Tour

### 2:45PM–4:15PM

- Ariss- You Can Talk To Astronauts
- Butterflies, Spiders, plants– Real Space Science in Your Classroom!
- EarthKam: Taking pictures of the Earth from Space
- Flight Mission Challenged: Improving Earthquake Monitoring
- K-2 and Technology Too!
- Kepler and the Search for Exoplanets
- On The Moon: NASA's STEM Engineering Design Challenges
- Orion 101
- The Real Lord Of The Rings
- Shakin Quakes and Rocks
- Spaced Out Sports
- Spheres of Earth
- S.T.E.M Lesson Planning– The Who, What, & Where
- Using NASA Museum Exhibits to Teach the History of Human Space Flight

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- Energy Systems Test Lab (Pyrotechnics)
- Vehicle Mock-Ups
- Habitability and Human Factors
- Habitat Demo Unit and Morpheus
- Spacesuit Tour