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Space Exploration Educators Conference

**February 5-7, 2015**



**SPACE  
CENTER  
HOUSTON**

**Thursday February 5, 2015**

# Schedule Of Events

## Wednesday, February 4, 2015

3:00pm-6:00pm Early Bird Check-in

## Thursday, February 5, 2015

7:15am Check-in Begins  
7:30am SEEC 101 (A 'MUST' for all new attendees to SEEC) Blast-Off Theater  
8:00am Welcome Address and Key Note—NASA Astronaut (TBA)  
10:00am-11:30am First Session  
11:30am-12:30pm Lunch Buffet in Astronaut Gallery  
12:45pm-2:15pm Second Session  
2:45pm-4:15pm Third Session  
4:45pm Dismiss (Bus Run Begins) *See help desk for bus schedule*  
5:00pm Those staying for Epicurean will go to Northrop Grumman for Pre Epicurean entertainment  
6:30pm-9:30pm "A Taste of Space" Epicurean Event (Bus will run hotel loops)

## Friday, February 6, 2015

7:15am Check-in  
8:00am-9:15am Key Note - Future of Spaceflight Panel  
10:00am-11:30am First Session  
11:30am-12:30pm Lunch  
Astronaut Jerry Ross book Signing (Space Traders)  
12:45pm-2:15pm Second Session  
2:45pm-4:15pm Third Session  
4:45pm Dismiss (Bus Run Begins) *See help desk for bus schedule*  
7:15pm-11:45pm Banquet  
Band— Groove Night which get you in the dancing mood!

## Saturday, February 7, 2015

7:15am Doors Open  
8:00am-9:30am First Session  
10:00am-11:30am Second Session  
11:30am-12:30pm Lunch  
12:45pm-2:15pm Third Session  
2:30pm-3:30pm Key Note - Jeffery Tambor  
3:30pm-3:45pm Door Prizes/ Farewell  
3:45pm Dismiss/Certificates in O-G Dinner  
4:30pm Conference Help Desk Closes  
7:00pm Space Center Houston Closes

**Sessions will take place at Space Center Houston and JSC Gilruth**

# Conference Sessions

## Session Selection

Selecting your individual breakout sessions is easy! Just read through this conference booklet to see the selections for each time slot. Then, go online and make your session selections at <http://www.spacecenterprogs.org/seec/seecLogin.aspx>

Sessions that are full will not appear. It's that easy! **Just be sure to move quickly as some sessions fill up fast.** Breakout sessions include NASA tours as well as the hands-on sessions. Tours fill up especially fast, so please plan accordingly. **(All tours require closed-toe shoes)**

If a session is full, don't worry. Check with the Conference Help Table when you arrive to see if there are openings or watch the "swap" board for the session ticket.

If you have any questions, please contact us by e-mail at [SEEC@spacecenter.org](mailto:SEEC@spacecenter.org).

## Johnson Space Center Tours:

### Mission Control Tour 12:45pm-2:15pm

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 10:00am-11:30am or 2:45pm- 4:15

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!

### Space Vehicle Mock-up Facility (SVMF) 10:00am-11:30am or 2:45pm- 4:15pm

Explore the training grounds for the astronauts. See full size mock-ups of the 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.

<http://spacecenter.org/education-programs/teacher-programs/teachers-seec/>

# Conference Sessions

**Thursday February 5, 2015**

**10:00am-11:30am**

## **3,2,1...Liftoff with an Engineering Twist**

*Lynne Hehr and John G. Hehr, Arkansas NASA ERC & the STEM Center for Math & Science Ed and University of Arkansas Department of Geosciences*

Rocket your way through space exploration with an engineering twist on the NASA guide "3, 2, 1...Liftoff." Experience a fast-paced session as you explore interdisciplinary activities in science, math, engineering, and language arts for the early learner. Participants will receive loads of materials!

*Grade Level: K-2<sup>nd</sup>*

*Subjects: Science, Math, and Language Arts*

## **Amazing Hands-On Learning about Our Universe**

*Megan Anders, Hands-On Learning*

This hands-on interactive session will give you an amazing month-long unit to fully immerse your scholars into space and space exploration. The lessons are hands-on and developmentally appropriate. Science, Math, Language Arts, Social Studies, Social-Emotional Learning, Geography, it is all included! All you have to do is come have fun!

*Grade Level: K-5<sup>th</sup>*

*Subjects: Science, Math, Technology, Language Arts, Fine Arts, Social Studies, History*

## **Blast Off to Learning with Readers Theater**

*Adrienne Provenzano, Independent S.T.E.A.M Educator*

Have fun in a supportive environment while you write, read, rehearse, and perform S.T.E.M. and space-themed scripts! Experience the power of the spoken word to inspire, engage, and educate! Includes a special spotlight on women in S.T.E.M. fields. Journey back in time and imagine future possibilities. Ready-to-use materials provided.

*Grade Level: K-12<sup>th</sup>*

*Subjects: Science, Technology, Language Arts, Math, Physical Education & Health, Fine Arts, Social Studies, and History*

## **Designing Lunar Growth Chambers and Landers: An Engineering Process**

*Laura Mackay and Nicole Long, Ed White Elementary E-STEM*

This session focuses on our process for integrating STEM for upper elementary students. As we share our engineering lessons through pictures, video, and handouts, you will design shock absorbers for a lunar lander and create a plant growth chamber to send to the moon.

*Grade Level: 3<sup>rd</sup>-5<sup>th</sup>*

*Subjects: Science and Tech*

## **EarthKAM: Taking Pictures of the Earth from the ISS ~~Cancelled~~**

*Dr. Karen Flammer, Sally Ride Science, and Leesa Hubbard, Wilson County Schools*

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.

*Grade Level: 3<sup>rd</sup>-8<sup>th</sup>*

*Subjects: Science, Tech, Language Arts, Math, Social Studies*

## **Earth Investigations in Your Classroom: It's Easier than You Think!**

*Paige V. Graff and Suzanne Foxworth, Jacobs Technology at NASA Johnson Space Center*

Would your students be interested in having astronauts take images of Earth to support a classroom investigation? If YES, join this hands-on, inquiry-based session. Gain experience modeling scientific practices by making observations and "translating" those observations into investigation questions. We'll even request our own new imagery. Stunning images/NASA resources provided.

*Grade Level: 3<sup>rd</sup>-12<sup>th</sup>*

*Subjects: Science and Math*

# Conference Sessions

**Thursday February 5, 2015**

**10:00am-11:30am**

## **Good Vibrations**

*Martha Noblett and Amanda Ewenson, Northside ISD*

Astronaut Don Petit cobbled together an instrument, then demonstrated effects of sound variations onboard the ISS. Participants will be guided by a music teacher in activities to visualize sound and will create their own instruments with variations to better understand how design affects vibration and therefore changes pitch.

*Grade Level: 3<sup>rd</sup>-5<sup>th</sup>*

*Subjects: Science and Fine Arts*

## **Holy Data Batman! What Graph?**

*Jennifer Smith and David Temple, Longview High School*

Participants will make and take “foldables” to help explain how to make a great graph and how different graphs can be analyzed. The “foldables” will help students with graphing concepts in science. Session will cover how to make a great graph (6<sup>th</sup> grade) through advanced concepts in IB Physics (HS). Specific attention will be given to the interrelatedness of the distance-time, velocity-time, and acceleration time graphs. Math concepts of slope/derivative, area under the curve/integration, line of best fit, and determining error of a graph will be addressed.

*Grade Level: 6<sup>th</sup>-12<sup>th</sup>*

*Subjects: Science and Math*

## **ISS Science – International Toys in Space**

*Susan Mayo, Barrios Technology*

The International Space Station has the unique ability to capture the imaginations of students. International Toys in Space compares the actions of toys in Earth gravity to their actions in ISS microgravity. This hands-on activity incorporates many disciplines and multiple grade levels. The depth of concepts covered is teacher and student driven.

*Grade Level: 6<sup>th</sup>-12<sup>th</sup>*

*Subjects: Science*

## **NASA Resources in 21<sup>st</sup> Century STEM**

*Elaine Lapka, NASA JSC Educator Resource Center*

ERC staff is still your guide to NASA educational programs and standards-aligned K-18 teaching resources online, on paper, and on disk. Now we'll take a leap beyond to ways to connect and collaborate with educational technology. Bring your favorite mobile device (smartphone, iPhone, iPad) to experience augmented reality and create a simple 'Aura' of your own.

*Grades: K-12<sup>th</sup>*

*Subjects: STEAM*

## **Paint like a Professional: Spray Painted Solar System Murals**

*Dorinda Risenhoover and Arthur Hoffman, NASA Oklahoma Space Grant Consortium*

Amaze and impress your students by “spray painting the solar system”! During this session, you will learn how to spray paint the solar system onto poster boards using a technique that looks professional and will rival the works of the street painters. This activity can be adapted for any grade level.

*Grade Level: K-12<sup>th</sup>*

*Subjects: Science and Fine Arts*

## **Passport to Space II - Literacy & Math**

*Jeannine Roseberry and Zachary Pethan, Jefferson Elementary School*

Extend your space science curriculum to literacy and math to help your students learn all about space across the disciplines. This session will provide hands-on activities for language arts and math that can be incorporated with any space science unit in the primary grades. Build academic vocabulary and charge up your literacy and math centers to help students learn about space concepts as they build their skills. Make and take literacy and math projects and ideas for your classroom will also be included.

*Grades: K-2<sup>nd</sup>*

*Subjects: Science, Math, Reading, Writing, Language Arts*

# Conference Sessions

**Thursday February 5, 2015**

**10:00am-11:30am**

## **Relive Your Childhood: Paper Airplane Meets Technology**

*William C. Luke, Central Texas College, and Gregory P. Luke, Temple High School*

Selecting a paper airplane design of their choice, educators will construct a paper airplane. No cutting, taping, or gluing will be required. Educators will determine area of the wings and estimate the distance and time aloft their plane will achieve. Educators will then fly their plane, recording distance and time aloft. Educators will then see how, using TI-Nspire and navigator system, they can evaluate their data to include graphs of time aloft vs. wing area and distance vs. time aloft. They will discover how the TI-Nspire and navigator system will make the data come alive.

*Grade Level: 6<sup>th</sup>-12<sup>th</sup>*

*Subjects: Science, Math, and Tech*

## **Red Solo Cup Space Program: Exoplanet Research**

*Travis Schenck, Space Foundation*

Exploring space doesn't have to be expensive and can be as simple as cups, tape, and things around the classroom. Combine these items into an entertaining lesson that will teach students about exoplanets. Explore the scientific method, basic engineering, and problems solving in the classroom with this Maker inspired lesson.

*Grade Level: 3<sup>rd</sup>-8<sup>th</sup>*

*Subjects: Science*

**12:45pm- 2:15pm**

## **Angry Bird Physics**

*Terry Conaway and Julie Edwards, Bayside Intermediate School, Clear Creek*

Workshop on designing an experiment using an Angry Birds theme catapult and using the design process to construct a confetti launcher that demonstrates one or more of Newton's Three Laws of Motion.

*Grade Level: 6<sup>th</sup>-8<sup>th</sup>*

*Subjects: Science and Technology*

## **Cluducation..... The Sky is the Limit!**

*Debbie Zafer and Angela Magers, Montessori Academy of North Texas*

Get excited about clouds across the curriculum! Learn how clouds are formed, Name the basic Cloud types, Classification of Clouds, and about CloudSAT and its functionality. Participate in exciting hands-on science experiments, games, art, music, technology, and math activities.

*Grade Level: K-5<sup>th</sup>*

*Subjects: Science, Technology, Math, PE, Language arts, Fine Arts*

## **Come Fly with Us to the Edge of Space**

*Sharon Eggleston and Diane Bowen, Maine Space Grant Consortium*

Come 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 'Are we alone, Does life exist elsewhere in our universe, What is life, and What is an extremophile?'

*Grade Level: 6<sup>th</sup>-12<sup>th</sup>*

*Subjects: Science, Tech, Math, and Engineering*

## **Connecting the Dots: Bringing the Night Sky into Your Classroom**

*Eloise Keary, Nancy Haller White, and Kari Irvine, Osceola Sexton Planetarium*

The constellations are the perfect springboard for making classroom educational connections. Through a variety of hands-on activities and practical lesson plans we'll show you how to use the constellations for learning about astronomy, mythology, world cultures, science, history, geography and more. Bonus: Experience the night sky under our portable Planetarium!

*Grade Level: K-8<sup>th</sup>*

*Subjects: Science, Tech, Language Arts, and History*

# Conference Sessions

**Thursday February 5, 2015**

**12:45pm– 2:15pm**

## **Experiments in Space: The Weightless Classroom**

*Kaci Heins, Northland Preparatory Academy, and Meredith Swartzendruber, Caravel Academy*

Have you ever wondered how objects on Earth work in space? What about sending an actual student experiment to the International Space Station? In this session work with toys in 1g and compare how they work in weightlessness! Also, learn how your school can send a student experiment up to the ISS!

*Grade Level: 3<sup>rd</sup>-12<sup>th</sup>*

*Subjects: Science*

## **High/Low Tech: Exploration of Instructional Strategies with and without a Tablet Device**

*Stacey Karpowicz-Boring, Clear Springs High School, and Amanda L. Rodriguez, Dickinson High School*

Learn new ways to engage your students using an electronic device (laptop, tablet and/or phone) and with foldables in the style of Dinah Zike. We will give specific lessons and strategies that can be used for Geometry, Algebra 2 and PreCalculus. The foldables and tablet activities could be utilized for note-taking, independent practice, and project assessments. Fun! Hands-on! Attendees are welcome to bring their electronic device, but it is not necessary for the session. We will also have door prizes, so don't miss out!

*Grade Level: 9<sup>th</sup>-12<sup>th</sup>*

*Subjects: Math*

## **ISS CONSTRUCTION SIMULATION (Dive Session) (Double Session)**

*Craig Shannon, NBL Dive Master*

Train like astronauts in this exciting session! You will participate in underwater training exercises using SCUBA gear in a local indoor pool. No previous experience necessary. *Bring a swimsuit and towel. (T-shirts not required but helpful)*

Additional \$35 charge for this session. NOTE: This is a double session!

(If registering for this session pay online first) This session is not available to select online. We will add you to it once you have paid on line. Leave the time slot open on your session selection)

*Grades K-12<sup>th</sup>*

## **Robot Math**

*Cathy Roberts and Cristyne Patte, Lester B. Pearson School Board*

Our introductory NXT math mission will consist of building onto a base robot to give it the ability to find 3-D shapes in order to build a shelter on Mars. The shelter will have to meet a list of criteria using fractions, 3-D shapes, measurement and repeated addition. We will incorporate 2 iPad apps, Explain Everything and Book Creator, in order for the participants to explain their thinking.

*Grade Level: 3<sup>rd</sup>-5<sup>th</sup>*

*Subjects: Science, Math, Technology, Language Arts, Fine Arts*

## **Rocks from Space in Your Classroom – Yes You Can! (Double Session 12:45PM– 4:15PM)**

*Angelo Casaburri, NASA Educator Professional Development Project*

Bring the Moon and meteorites into your classroom by becoming a certified teacher in the NASA Lunar-Meteorite Sample Disk Loan program. Use NASA STEM hands-on activities to teach how Moon rocks give the formation and geologic history of the Moon. Use meteorites to teach how rocks from space yield the formation and geological history of the Solar System.

*Grade Level: K-12<sup>th</sup>*

## **Take a Flight—Out of the Classroom; Into the Sky!**

*Susan Mallett and Debbie Dahl, Civil Air Patrol*

K-12 teachers join “ground school” and free flight over Houston! This DOUBLE SESSION will include tour activities and free materials/STEM Kits shipped to you. Cameras encouraged! U.S. citizenship needed. Cost: \$17.50. Find out how to pre-pay and get an ID# needed for flight by contacting ae@capnhq.gov.

*Grade Level: K-12<sup>th</sup>*

*Subjects: Science, Tech, Math, Physical Education & Health, and Language Arts*

# Conference Sessions

**Thursday February 5, 2015**

**12:45pm– 2:15pm**

**Teaching science using space exploration..... a common approach across the world!**

*Alex Blackwood and Val Caldwell,*

A description of how lessons in classrooms in Scotland and across Europe are using Space Exploration to teach science. Hands-on examples of lessons will be presented as well as online resources used and how they are used to enhance teaching and learning.

*Grade Level: K-12*

*Subjects: Science, Math, Technology*

**Teaching Astronomy from a Zip Lock Bag**

*Catherine Ryan, Systran, Inc., and Nina Corley, O'Connell College Preparatory School*

Finding hands-on activities to do in an Astronomy/Space Science class is hard for any new teacher. There are many activities on the Internet, but who has time to search for them? This presentation will provide you with over 30 different hands-on activities ready to print and store in Zip Lock bags to use each year to enrich your space curriculum. Save yourself hours of research time, and come experience some great hands-on activities to help your students learn and help them dream big!

*Grade Level: 6<sup>th</sup> -12<sup>th</sup>*

*Subjects: Science*

**There's No Place like Mars**

*Stephanie Brunet and Debbie Myles, Lester B. Pearson School Board*

Can you believe that students as young as the age of five can build and create an imaginary place on Mars? We will show you activities used to bring our students to create storyboards of their home on Mars. Using Lego WeDo Robotics, you will build your own robotic structure needed to survive on Mars. Come play with us!

*Grade Level: K-2<sup>nd</sup>*

*Subjects: Science, Math, Technology, Health, Language Arts, Fine Arts*

**The World of Mirrors and the World of Gravity (Double Session 12:45pm– 4:15pm)**

*Hideo Shibata and Kae Ichihashi, Kokubunji Dai-San Junior High School and Hateruma Kindergarten*

Two teachers from Japan will demonstrate how we can use every day objects to stimulate our sense of creativity using light and mirrors and better understand the effects of gravity on the earth.

*Grade Level: K-12<sup>th</sup>*

*Subjects: Science*

**Tiny Space Adventures**

*Raquel Jenkins, Independent Education Specialist*

All tiny space adventurers on this journey will have a blast as they rhyme, sing, read, graph, trace, sequence and color their way through space! Fun space topics include the solar system, astronauts, animals in space and space spin-offs. Leave with creative and fun worksheets ready to use in the classroom that meet Common Core and NGSS.

*Grade Level: K-2<sup>nd</sup>*

*Subjects: Science, Math, Language Arts, Fine Arts, History*

**To Infinity and Beyond (Double Session 12:45pm– 4:15pm)**

*Bryan Krauklis, Katy ISD, and Ryan Krauklis, University of Houston*

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 (that you get to keep) are provided along with the fun!

*Grade Level: N/A*

*Subjects: Science*

# Conference Sessions

**Thursday February 5, 2015**

**2:45pm– 4:15pm**

## **Cause, Effect, Cause, Effect, Cause, Effect: POP!**

*Jennifer Baker and Amanda Ewenson, Northside ISD*

Finding clever solutions to simple problems helps students stretch their thinking and demonstrate creativity. It also helps them to get interested in STEM careers where this type of thinking is essential. Come join us to build a Rube Goldberg machine. Get a marble to roll down a shoot, turn a crank, knock down dominoes, or whatever your group designs to accomplish a simple task.

*Grade Level: 3<sup>rd</sup>-8<sup>th</sup>*

*Subjects: Science, Language Arts, Math*

## **MONEY—MONEY—MONEY—Grant Writing for Your Classroom and You!**

*Barb Gosney, Imagine Schools, Avondale, AZ*

The presenter will take you through the process of writing grants and help you find the multitude of grant offerings, websites, and grant writing assistance. If you would love to go abroad for a class, go to Educator Space Camp, go to Yellowstone National Park, or spend a summer in a national park, it is possible with a little work and effort. Bring your laptops. Free giveaways!

*Grade Level: K-12<sup>th</sup>*

*Subjects: Science, Technology, Language Arts, Math, Physical Education, Fine Arts, Social Studies, History*

## **Packing for an “Astronomical” Appetite**

*Capt. Michelle Sedberry and Shields Wilson Templeton, Region 17 ESC and 5th grade Math and Science*

Participants will learn how physical properties play a big part in decisions made by NASA. Come learn how mass, size, and states of matter relate to space food, use properties to categorize “moon rocks,” and finally use size and shape to make decisions about packing a shuttle.

*Grade Level: K-5<sup>th</sup>*

*Subjects: Science and Tech*

## **Space Night**

*Janice Katz, Davenport School of the Arts and Mare Gilmore, STEAM Powered Learning*

This is an exciting, hands-on presentation that will take you step by step on how to put on a Space Night at your school. Space Night is a thrilling way to continue to bring space to your community and promote the importance of Space Education and Space Exploration. Participants will make their own lunar lander and make their own stomp rocket launcher to bring back to their classroom. Activities discussed can be used at Space Night, in the classroom or use as part of your Space Club. All lesson plans will be given to participants, and there will be giveaways.

*Grade Level: K-8<sup>th</sup>*

*Subjects: Science*

## **Mission to the Moon**

*Kimberly Joiner and Sarah Niklas, Primrose Schools – College Park*

You are the student astronaut, and we will take you through each step of the mission from space suit construction to acting out a spacewalk. You will write your own script for mission control, create a mission patch, design your space suit, blast off, and complete a spacewalk, all without ever leaving Earth!

*Grade Level: K-2<sup>nd</sup>*

*Subjects: Science, Tech, Math, Physical Education & Health, Language Arts, Fine Arts, Social Studies*

## **Take Flight with NASA Airborne Sciences**

*Michael Wilkinson, Fieldston Lower School, and Emily Schaller, National Suborbital Education and Research Center*

Come fly along with active NASA research and interact with actual missions in real time! Learn about the NASA Airborne Research Mission Tools interface that allows classrooms to connect to real time data streams and online live chats with mission scientists, engineers, pilots and other classrooms around the world. Incorporate this NASA resource in your curriculum and take your students on inspiring adventures.

*Grade Level: K-12<sup>th</sup>*

*Subjects: Science, Math, Tech, Physical Education & Health, Language Arts, Social Studies, and History*

# Conference Sessions

**Thursday February 5, 2015**

**2:45pm– 4:15pm**

## **Blasting Off with Newton's Laws through the Learning Cycle!**

*Dorinda Risenhoover and Kendall Dobbs, NASA Oklahoma Space Grant Consortium*

Do you strive to encourage children to become inquisitive and active scientists? Would you like to empower your students to discover Newton's Laws in a way they will remember? In this session, you will do just this through 3 hands-on STEM based rocketry lessons taught using the learning cycle! Activities will include fizz rockets, Hero's engines, and 2-liter bottle rockets!

*Grade Level: 3<sup>rd</sup>-5<sup>th</sup>*

*Subjects: Science, Technology, and History*

## **So You Think You Know Your Students? Using Videos, Polls, And Reflective Response To Inform Instructions**

*Farkhunda Yasmin Azeem, Spring Forest Middle School*

Teachers and students use videos, Quizzes, Polls and assignments using Edmodo platform.. It is an education website that takes the idea of social network and make it appropriate for a classroom. Using Edmodo, students and teachers can reach out to one another and connect by sharing ideas, problems and helpful tips.

*Grade Level: K-12*

*Subjects: All*

## **Note-Taking Assistance for Student Achievement**

*Stephanie Smith, Euless Junior High School, and Brenda Bennett, Lamar High School*

Have you ever wanted to incorporate foldables into your class? Do you struggle with how to turn your traditional notes into foldable notes? We will teach you how to turn your notes into foldables and which foldables will work best for the material you need to cover. Come learn how to turn your lessons into fun, exciting foldables.

*Audience: 6<sup>th</sup>-12<sup>th</sup>*

*Subject Areas: Science and Math*

## **Lasers in the Classroom: It's a Fricken LASER**

*David Temple and Jennifer Smith, Longview High School*

This will be an interactive workshop on lasers. Some brief background on the development of lasers, some of their uses in astronomy. Most of the workshop will be small group activities with lasers that will demonstrate optics content that can be done in most any classroom.

*Grade Level: 9<sup>th</sup>-12<sup>th</sup>*

*Subjects: Science*

## **Global Precipitation Measurement Mission and Storm Modeling with Legos**

*Bryan DeBates and Travis Schenck, Space Foundation*

Learn about the GPM mission from GPM Master Teachers, and the importance of the mission for tracking fresh water on our planet. Participants will take data and create 3D storm models using LEGOS or Unifix Cubes. You will learn about the vast amount of educational resources associated with the mission.

*Grade Level: 3<sup>rd</sup>-12<sup>th</sup>*

*Subjects: Science, Tech, and Math*