region 4™

Science Conference

Saturday, February 15, 2014

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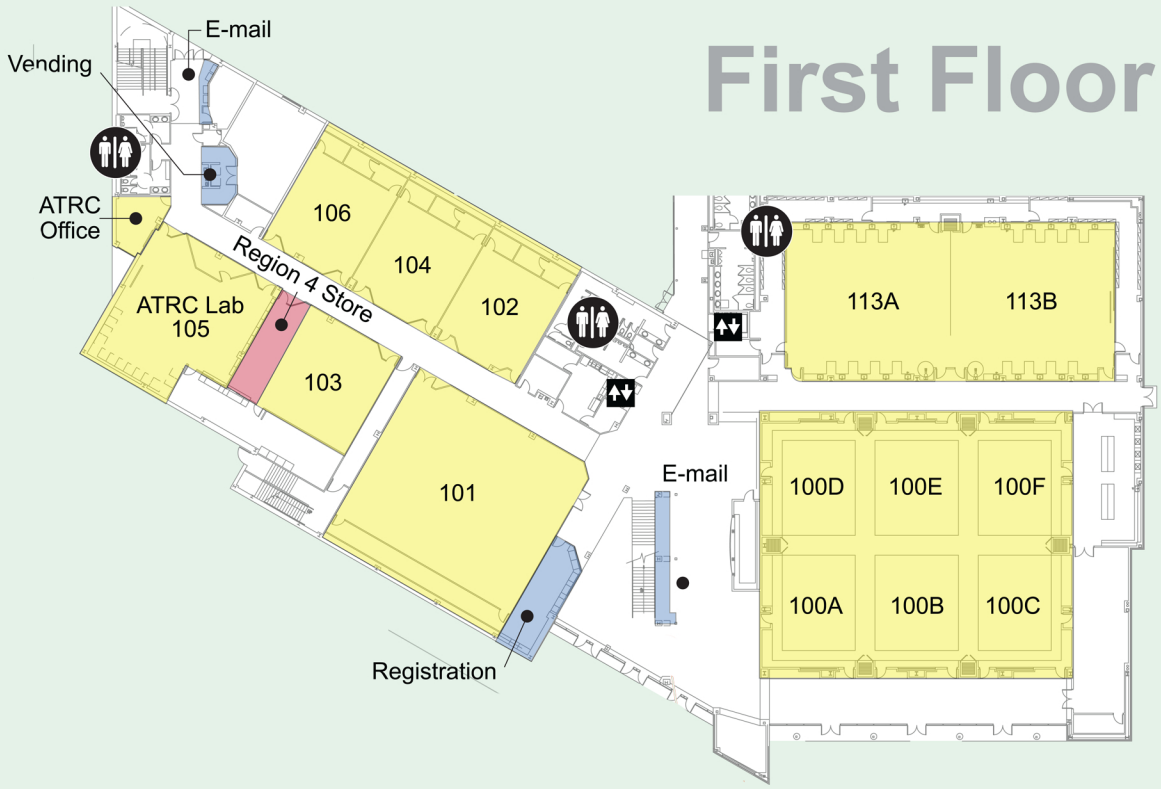
/Region4Science

Room #	8:30-9:30	9:45-11:15	11:20-12:20	12:30-1:15	1:30-2:15	2:30-3:15	3:15-3:30	Grade Level
Sci Lab A	WELCOME and KEYNOTE SPEECH	Playing with Petroleum *Doris Tomas*	LUNCH	This Cycle Rocks *Joy Sloan*	Family Science Night *Kirah Diaz*	Texas Wildlife Association L.A.N.D.S. Educational Programs *Mary Pearl Meuth*	DOOR PRIZES	K-12
Sci Lab B		Polymers, Monomers, and Chemistry Oh My! *Carol Bullock*		Using Inquiry to Rethink Statics and Dynamics Lessons *Gigi Nevils-Noe*	Keeping It Real with Arduino Circuits *Matthew Cushing*	Investigating Physics Concepts Using Common Household Products *Michael Cubacub*		K-2
102		Interactive Notebooks - A Power Tool for Implementing UDL in the Secondary Science Classroom *Elisa Lewis*		Simple Set-Up, Simple Materials, Simple 5- to 8-minute Science Mini Labs *Carol Turner*	They've Got to Touch It to Understand It! *Carol Turner*	Neon Art and the Atom *Amber Szymczyk*		K-5
106				Edmodofied Data Driven Instruction *Alejandra Guzman*				K-8
201		iTeach with my iPad *Toni Hill-Kennedy*		Stations Galore *Frankie Knowles*	It's Just a Phase: A moon phase model with a different perspective *Dodie Resendez*			3-5
202		Force and Motion *Janet White*		Cross Curricular Connections in Science *Jason McCoy*	Terrific Games for Middle and High Schools *Joy Abuan*	Terrific Games for Elementary Schools *Joy Abuan*		3-8
203		Interactive Folding Graphic Organizers for Science Notebooks *Stacy Williams* ---------- Implementing Academic Discourse *Soleil Roper*		Formative Assessment in Science *Lynn Bachellor*	What is DOK? Why Do I Need It? *Lynn Bachellor*			3-12
204		Reflection and Application of the Science TEKS - Learning to Write to Argue with Claims of Evidence K-8 *Tori Coyle*			APE MAN Day *Chelsea Murray*	Launching Into STEM *Vicki Pillow*		5-6
205		Vocabulary for ESL Learners *Alejandra Guzman*		Simple Science in Interactive Notebooks *Dianna Garland*	What's on the Menu? *Shirley Willingham*	Science Reviews, Point by Point *Shirley Willingham*		6-8
206		Students Soaring Through Science *Jaime Roya*		Biology Instruction with iPads *Jennifer Wellman*	Reviewing Biology with Games *Iroghama Omere*	Spatial Thinking in STEM K-12 *Linda Scott*		6-12
207		Making Connections: Appropriate and Effective Social Media in the Classroom *Robert Williams*		Flipped Out: Science in the Flipped or Blended Classroom *Robert Williams*	The Best Fit: 25 Web 2.0 Tools for the Differentiated Science Classroom *Robert Williams*	Using Cornell Notes from a Reading Passage in Science *Carol Bullock*		9-12

First Floor



Region 4 Store

Restrooms

Elevators

Second Floor

9:45 a.m. - 10:30 a.m.

Grade Span	Room	Title & Descriptor	Presenter(s)
3-8	203	**Interactive Folding Graphic Organizers for Science Notebooks** Interactive graphic organizers are a great way to help your students connect with the content. I will show you ways to incorporate folding graphic organizers into your science notebooks.	Stacy Williams, Houston ISD

9:45 a.m. - 11:15 a.m.

Grade Span	Room	Title & Descriptor	Presenter(s)
K-2	MC 113A	**Playing with Petroleum** Looking for free, easy to use STEM resources and expertise for your classroom? See how the OEC can enhance your teaching about natural resources. Learn about OEC's Playing with Petroleum Kit that can be checked out for up to 30 days each year free of charge with door to door delivery provided. Participate in a fun, hands-on activity that can be readily incorporated into your classroom. Door Prizes!!	Doris Tomas, Offshore Energy Center
K-2	202	**Force and Motion** Do you need ideas to teach force and motion using hands-on activities? Do you want to use centers for force and motion but are not sure where to start? Come and join us for lots of ideas and activities that your students will love!	Janet White, Houston ISD
K-8	204	**Reflection and Application of the Science TEKS - Learning to Write to Argue with Claims of Evidence K-8** Examine the Science TEKS, sections 5-10. Apply this knowledge and understanding to effectively integrate reading informational text and writing to argue through science notebooking.	Tori Coyle, Carolina Curriculum
3-12	205	**Vocabulary for ESL Learners** ESL students struggle with scientific vocabulary. Learn how to implement vocabulary in different ways. In this session, you will create a mini prefix and suffix wall, create a set of vocabulary dissections, discuss different notebooking strategies, and learn new and fun ways to make dictionaries. These strategies will help boost your students' scientific knowledge and strengthen their English skills.	Alejandra Guzman, Houston ISD
3-12	207	**Making Connections: Appropriate and Effective Social Media in the Classroom** Go beyond Facebook and see the benefits of social media to share content, instruction, and other information with students and parents in a safe and professional environment. Focuses on policy development, free app and software options, online safety, and pros and cons of social media in the classroom. BYOT welcome.	Robert Williams, Cypress-Fairbanks ISD and Dawn Whitten, University of Houston

9:45 a.m. - 11:15 a.m.

Grade Span	Room	Title & Descriptor	Presenter(s)
6-8	MC 113B	**Polymers, Monomers, and Chemistry Oh My!** Participants get to "play" in 8 activities that can be used or modified for 6th, 7th, or 8th grade science TEKS. Cornell notes along with polymer, organic compounds, card sorts, and chemical reaction activities will be available for everyone. Walk away with activities and ideas you can use on Monday.	Carol Bullock, Dickinson ISD
6-8	201	**iTeach with my iPad!** Walk in with your iPad and an open mind. Spend time exploring Apps. Create your own activities. Walk out with new ideas and 'ready to use' TEKS-based lessons that your students will love!	Toni Hill-Kennedy and Angela Veneziale, Houston ISD
6-12	102	**Interactive Notebooks – A Power Tool for Implementing UDL in the Secondary Science Classroom** Explore how interactive notebooking strategies align with the Universal Design for Learning (UDL) framework and increase access to the essential knowledge and skills in secondary science. Learn key components of notebooking that provide support for all learners while embedding the scientific process skills and science content necessary for success on STAAR. Empower the science classrooms on your campus with this UDL power tool which can provide multiple means of representation, action and expression, and engagement!	Elisa Lewis and Lynn Bachellor, Region 4 ESC
6-12	206	**Students Soaring Through Science** Participants will gain practical ideas for student-led activities aligned to TEKS including strategies for differentiation, classroom management, and intervention. This fast-paced session includes time for teachers to plan for challenging instructional practices. Participants will learn what a student-led classroom looks like and how to manage behavior.	Jaime Roya, Houston ISD, and Shayna Pond. Shayna Pond Education Consulting

10:30 a.m. - 11:15 a.m.

Grade Span	Room	Title & Descriptor	Presenter(s)
3-8	203	**Implementing Academic Discourse** Come learn how to develop the structures and strategies to implement student-to-student interaction. Teach students to discuss and defend their thoughts as tools for learning.	Soleil Roper and Clarissa Ruiz, Katy ISD

12:30 p.m. - 1:15 p.m.

Grade Span	Room	Title & Descriptor	Presenter(s)
K-2	205	**Simple Science in Interactive Notebooks** Come experience hands-on science activities for K-2 students utilizing interactive notebooks. Learn how to engage young learners in physical science by turning a flip chart into a class science notebook.	Dianna Garland and Edrice Bell, Region 4 ESC
K-5	202	**Cross Curricular Connections in Science** Science is all around us and it doesn't stop at the science lab door. Texas ScienceFusion allows students to make science connections across the content areas…art, health and physical education, social studies, math, and language arts. Join us as we take science out of the lab and into other content areas!	Jason McCoy and Kathy Doyle, Houghton Mifflin Harcourt
3-12	203	**Formative Assessment in Science** Explore how formative assessments can help you design differentiated lessons, determine student misconceptions, check for understanding, and facilitate student achievement. Participants will experience and discuss assessment tools, strategies, and activities that provide students and teachers information to guide instruction and learning.	Lynn Bachellor, Region 4 ESC
3-12	207	**Flipped Out: Science in the Flipped or Blended Classroom** Examine the philosophy, free Web tools, and other online resources to create a Flipped or Blended Classroom. Rationale, pros/cons, assessment options, screen capture, sharing and hosting sites, and other topics discussed. BYOT is welcomed and encouraged but not required.	Robert Williams, Cypress-Fairbanks ISD and Dawn Whitten, University of Houston
4-5	102	**Simple Set-Up, Simple Materials, Simple 5- to 8- Minute Science Mini-Labs** Keep science skills and concepts fresh in your students' minds! Promote a "working" science vocabulary! Participants view simple, on-going mini-science labs that require the use of elementary science equipment and readily available materials. Instructions given on how to make mini-labs focusing on science tools and the metric system, mini-labs focusing on applying scientific process skills, and setting up mini-lab reviews based upon testing data. Ideas for over 50 mini-labs shared!	Carol Turner, Catco CC
5-6	MC 113A	**This Cycle Rocks** This "Make and Take" activity will help your students understand the rock cycle. Students will travel through the rock cycle's various stages using game cubes for a fun, hands on experience. Students will record their movements and use them to create stories, comic strips, travel brochures, or digital story boards about their journey as a rock. Blackline masters, instructions, information pages, and examples of student products will be provided.	Joy Sloan, Offshore Energy Center

12:30 p.m. - 1:15 p.m.

Grade Span	Room	Title & Descriptor	Presenter(s)
6-8	201	**Stations Galore** Stations are a great way to make curriculum accessible to all students. They are compact, exciting, and most importantly, they have an assessment piece built-in. They also allow for differentiation and one-on-one discussions with the teacher. Come see how stations can be used to teach all 5Es!	Frankie Knowles, Tomball ISD
6-12	MC 113B	**Using Inquiry to Rethink Statics and Dynamics Lessons** We present an innovative first foray into Newtonian mechanics, using a relay race to demonstrate Newton's 1st law, "force" arrow manipulatives to demonstrate Newton's 2nd law, demonstrations with balloons for Newton's 3rd law, and the final "inertia ball" course brings it all together. Lesson plan with some materials provided.	Gigi Nevils-Noe, Rice University
9-12	106	**Edmodofied Data Driven Instruction** Learn how to get data using Edmodo and use it to drive instruction. You will learn how to use the basics of Edmodo and dissect out your student data. You will create small groups and tailor individual student needs based on their weaknesses. You can also learn how students can track their own data to make your life easier. This session will focus on some Biology EOC TEKS and remediation stations.	Alejandra Guzman, Houston ISD
9-12	206	**Biology Instruction with iPads** Explore ways to incorporate mobile technology into the Biology classroom. Integrate productivity apps with instruction and assessment. Technology management will be discussed. Feel free to BYOD (bring your own device) to the session.	Jennifer Wellman, Region 4 ESC

Region 4 offers a special "Thank You" to our exhibitors - Visit them today in Room 101!

Bedford, Freeman & Worth Publishing
Carolina Curriculum
Catco CC
CPO Science
Delta Education
DynaNotes
Ergopedia-Essential Physics
ETA hand2mind
Fisher Scientific
Hanna Instruments
Houghton Mifflin Harcourt
KAMICO Instructional Media
Lab-Aides®
Lakeshore Learning
National Geographic Learning
Offshore Energy Center
Pearson
Peoples Education
STEM Scopes
Texas Wildlife Association
UTeach Engineering
Ward's Science

1:30 p.m. - 2:15 p.m.

Grade Span	Room	Title & Descriptor	Presenter(s)
K-12	203	**What is DOK? Why Do I Need It?** Explore the benefits of Depth of Knowledge (DOK) developed by Dr. Norman Webb. DOK is a process used to identify the cognitive level of a student expectation and assessment item. In this session, participants will analyze and discuss how using DOK can support instruction and assessment in the classroom for student success.	Lynn Bachellor, Region 4 ESC
K-3	102	**They've Got to Touch It to Understand It!** Using a few science tools, art supplies, digital camera, and "stuff," participants learn how to make and set up 2 rotations of 12 mini-labs. On-going scientific processes and "working" vocabulary are addressed via hands-on learning activities emphasizing mass, length, volume, and classification utilizing balances, centimeter rulers, beakers, graduated cylinders, and graphic organizers. Participants view stations used in K-3 classrooms. These techniques used in 100+ Texas school districts.	Carol Turner, Catco CC
K-5	MC 113A	**Family Science Night** We all know that there is a positive correlation between family involvement and benefits for students including academic achievement. Come and take part in our quick, easy, and inexpensive family science night hands-on activities that are sure to bring a crowd at your next Family Science Night!	Kirah Diaz, LCISD/ Offshore Energy Center
3-5	205	**What's On the Menu?** Assessing student learning can be easier than you think! Get students excited about showing you what they know by giving them choices in creating rigorous and relevant assessment products. In this session, you will learn about setting up your own choice menus and also receive a variety of prepared menus for immediate use.	Shirley Willingham, Rice University
3-12	207	**The Best Fit: Top 25 Web 2.0 Tools for the Differentiated Science Classroom** Examine some of the most popular Web 2.0 tools and how to implement them in a differentiated classroom. Animoto, Prezi, Photostory, Symbaloo, Jing, Poll Everywhere, and many other tools, with examples of use with choice boards, tiered assignments, RAFTs, and other DI strategies to stimulate interest and engagement. BYOT welcome.	Robert Williams, Cypress-Fairbanks ISD and Dawn Whitten, University of Houston
6-8	204	**APE MAN Day** APE MAN Day is an event in which 8th grade students create an element t-shirt, then participate in a scavenger hunt to reinforce their learning during the chemistry unit. In this session, teachers will leave with a toolkit of all things needed to have a successful APE MAN Day. We will discuss our own successes and failures, as well as ways to differentiate the project for various populations and how to integrate technology. Join us for a high-energy presentation of the coolest project ever!	Chelsea Murray and Stacy Vinson, Fort Bend ISD

1:30 p.m. - 2:15 p.m.

Grade Span	Room	Title & Descriptor	Presenter(s)
6-12	202	**Terrific Science Games for Middle and High Schools** Teachers will learn to create their own games and puzzles based on their grade levels, types of learners, and TEKS objectives.	Joy Abuan, Houston ISD
Grade 8	201	**It's Just a Phase: A Moon Phase Model with a Different Perspective** Do your students struggle to understand moon phases? Looking for a new approach? Many models commonly used to investigate moon phases require students to study the Earth-Moon-Sun system "as viewed from space." In this hands-on session, learn how to make a moon phase model that helps make this abstract concept more concrete by allowing students to experience the Earth-Moon-Sun system "as viewed from Earth."	Dodie Resendez, Region 4 ESC
9-12	MC 113B	**Keeping It Real with Arduino Circuits** Use microcontrollers to investigate electric circuits. Add engineering to explore the physics behind open-source electronic prototyping platforms and breadboard circuits. Participants have the opportunity to wire circuits with speakers, switches, and lights and change the computer's engineering with simple code adjustments. Participants receive schematics and diagrams of circuits we explore.	Matthew Cushing and Gigi Nevils-Noe, Rice University
9-12	206	**Reviewing Biology with Games** Review Biology concepts with Active Learning strategies based on the board games "Apples to Apples" and "UNO". All themes of biology are interrelated. Students have a hard time making connections between diverse concepts of biology. The use of images during a competition is an engaging way for students to make connections between various concepts, as well as, discover misconceptions.	Iroghama Omere, Houston ISD and Christina Crawford, Rice University

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Open today from 9 a.m. - 2 p.m.
(next to Room 103)

2:30 p.m. - 3:15 p.m.

Grade Span	Room	Title & Descriptor	Presenter(s)
K-12	206	**Spatial Thinking in STEM K-12** What are spatial thinking skills and why do they matter? High spatial ability is a predictor of success in STEM disciplines. Students, especially girls, struggle in visualizing information in different dimensions. We will examine techniques that improve students' ability to think spatially that are easily integrated into everyday K-12 classrooms.	Linda Scott, Rice University
K-5	202	**Terrific Science Games for Elementary Schools** Teachers will learn to create their own games and puzzles based on their grade levels, types of learners, and TEKS objectives.	Joy Abuan, Houston ISD
K-8	MC 113A	**Texas Wildlife Association L.A.N.D.S. Educational Programs** Texas is 97% private land. Education of our young people and our growing urban populations, increasingly disconnected from the land, is critical to understanding our natural resources and maintaining rural lifestyles. TWA presents FREE wildlife & habitat-based curriculum to bring the natural resources of Texas into the classroom as your students explore with hands on, interactive and critical thinking activities. TEKS aligned activities and lesson plans that can be easily implemented in a classroom setting, indoors or outdoors, within a class period, a school day or a school week.	Mary Pearl Meuth and Lynnsey Dohmen, Texas Wildlife Association
3-5	205	**Science Reviews, Point by Point** Reviewing previously learned science concepts does not have to be a paper and pencil or teacher-guided activity. Using PowerPoint™ games and reviews can add zest to review time and keep students highly engaged. Learn tricks and tips to create digital reviews faster and easier. Receive a CD of prepared reviews and blank templates.	Shirley Willingham, Rice University
3-12	207	**Using Cornell Notes from a Reading Passage in Science** Learn how to use Cornell notes along with several other strategies using reading passages in science. Walk away with ideas ready to use in class the next day. All grade levels can benefit from these strategies.	Carol Bullock, Dickinson ISD
6-8	204	**Launching into STEM** Launch into STEM with an Engineering Design Challenge supporting Newton's laws of motion! Use science, engineering, and mathematics skills and concepts to design and build a mechanism that will launch an object to hit a target with precision at 5 meters. We will demonstrate incorporating STEM in your classroom.	Vicki Pillow and Ericka Lawton, Rice University
9-12	102	**Neon Art and the Atom** Incorporate art into your chemistry or physics classroom! Come see how Bruce Nauman's neon artwork reveals the hidden mysteries of light and atomic structure. Using spectroscopes, gas emission tubes, and plasma balls, participants will make observations and analyze them to develop a model of the atom supported by their evidence.	Amber Szymczyk and Gigi Nevils-Noe, Rice University
9-12	MC 113B	**Investigating Physics Concepts Using Common Household Products** Experience student-centered laboratory activities and investigations that support critical thinking and problem solving skills in Physics classrooms.	Michael Cubacub, Region 4 ESC

Love Kids. Love Science.

region 4™

Region 4 Science Workshops, Winter/Spring 2014

Visit www.esc4.net and enter the corresponding session ID number to register online. For more information about these sessions or to request customized professional development, contact science@esc4.net.

	Date	Session ID
K–12		
Formative Assessment in Science	February 18	1040012
Using Differentiated Instruction to Create Culturally Responsive Science Classrooms	March 5	1039055
Dipping Into the Science TEKS: Using Depth of Knowledge (DOK) for Student Success	May 13-14	1040214
Grades 4–12		
Building Academic Vocabulary in Science	March 4	1040010
Elementary		
Supporting STAAR Achievement in Science for Grade 5	February 27	1038049
Science Academies for Grades K-4	March 11-13	1038828
Supporting STAAR Achievement in Science for Grade 5	March 19	1038058
Building Academic Vocabulary in Science for Grades 3-5	April 30	1038012
Differentiated Instruction in Science for Grades K-3	May 7	1039050
Middle School		
Middle School Advanced Science Collaborative Meeting	February 18	1040147
Using Games Effectively to Review Science Vocabulary and Content	February 20	1040148
Supporting STAAR Achievement in Science for Grade 8	February 27	1039495
High School		
Supporting STAAR Achievement in Science: Biology	February 19	1039054
Using Games Effectively to Review Science Vocabulary and Content	February 20	1040148
Targeted Investigations for Biology Success	February 25	1039051
Differentiating Instruction in Biology: Questioning and Vocabulary Strategies	February 26	1039053
Science Elective Collaborative Meeting	February 27	1039497

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Region 4 Science Contact Information

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