



National Agriculture in the Classroom Conference



BLOOMING IN THE DESERT

June 21-24, 2016

Wigwam Resort

Litchfield Park, Arizona

WEDNESDAY, JUNE 22, 2016

6:30 AM - 9:00 PM	Registration Open	
12:00 PM - 9:00 PM	Exhibits and Silent Auction Open	Wigwam Foyer
12:00 PM - 2:15 PM	OPENING LUNCHEON Welcome from Mark Killian , Director, Arizona Department of Agriculture Harvesting: Crops and Careers - Mark Anderson , USCHI Keynote Address: 'Focus on Impact...The Lessons that Matter' David Mouser , Superintendent Tri-Valley Schools, Downs, IL	Wigwam Ballroom



David Mouser

Dr. David Mouser is an educational leader with a relentless interest in issues of improving opportunities for every student to excel. He has been the recipient of numerous state and national educational awards. As superintendent of Tri-Valley High School in Downs (IL), Dr. Mouser models innovative leadership with a laser-sharp focus on improving teaching and learning - for every student. He has success providing perspective on the lasting IMPACT that we all can make on students and each other. His message incorporates personal experience, good and bad, to encourage us to become better educators. Attendees will walk away with a more positive outlook on their importance in the classroom.

Dr. David Mouser grew up on a grain farm in Normal, Illinois. He graduated from Normal Community High School. David is a graduate of the University of Illinois with bachelors and masters degrees in education. He also holds an advanced certification in Educational Administration from Illinois State and a doctorate in Educational Leadership from Western Illinois University. He is married to Amie. They have two children, Morgan and Brady.

WORKSHOP SESSION 1

2:15 – 3:15PM

Finding Your Oasis: The Wellspring of Ag in the Classroom Resources

Traci Curry,
Cheryl Butterfield

Aztec A

While you are "Blooming in the Desert", quench your thirst for 'AG'mazing resources. In this session, educators new to Ag in the Classroom will find inspiration, motivation, and integration without perspiration! Let us welcome you to the Ag in the Classroom family, show you around a nation of resources, and help you see the ways you can inspire your students to grow curiosity and value learning using agriculture. You might leave the session feeling like you just drank from a fire hose but you will be ready to set the stage for a great new school year.

Grade Levels: All levels

STEMming Up Gardening for Grades

Becky Sponholtz,
Lisa Gaskalla

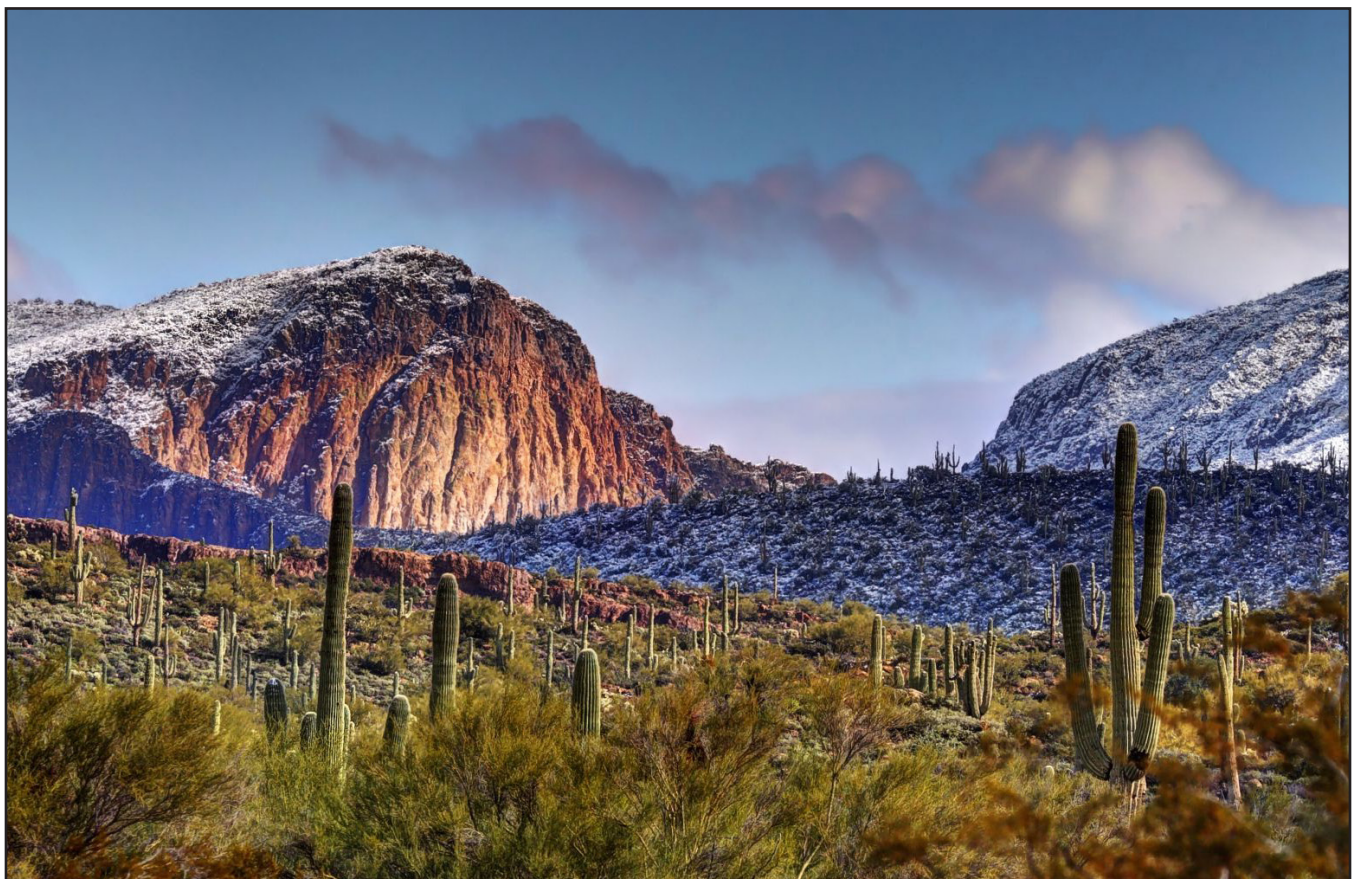
Aztec B

Want to become a garden engineer? How about a fruit and vegetable technician? Then sign up for our 'STEMming Up Gardening for Grades' workshop where the lessons that were part of the first edition of Florida Agriculture in the Classroom's school garden curriculum series are made more rigorous to incorporate STEM areas of instruction. Workshop goers will learn how to design an alternative growing system, create an irrigation watering system and take a photosynthesis lesson further using science, technology, engineering and math. Workshop goers will also receive a copy of the 'STEMming Up' curriculum after it is printed.

Grade Levels: 7-9

Farming and Reading Throughout The Year	Dewandee Neyman	Aztec C
Reading and Farming throughout the year! This power point will highlight a commodity and children's author each month. Activities and books will tie the two together. Lots of books and ideas for the classroom. An activity will be done to showcase the many ways to incorporate farming with school standards.		
<i>Grade Levels: Pre K-2</i>		
Agriculture websites that will help your students bloom	Pam Hosimer	Sahuaro
Is there a difference between food loss and food waste? This member of the grass family, known as Zea mays everta, is what popular snack? How is a Fibonacci Sequence related to a sunflower? Electrical storms on Earth form lightening strikes and produce what vital nutrient for life? Join us for the answers as we investigate amazing online agriculture resources to inspire you to create an atmosphere in which your students will bloom. We will cover a wide range of topics that will help you create lessons and support activities using agriculture as a teaching tool. Detailed resource list provided.		
<i>Grade Levels: All levels</i>		
Translating Applied STEM Research into Secondary Science (TASRs)	Cory Forbes, Jennifer Keshwani, Molly Brandt, Tyler Wolken	Sachem East
The TASRs program provides an opportunity for high school science teachers to collaborate with faculty and graduate students engaged in applied STEM research around agriculture and natural resources. The program goals include developing innovative high school STEM instructional materials based upon contemporary applied science, enhancing teachers' disciplinary knowledge, and enhancing pedagogical knowledge of STEM faculty and graduate students. During the pilot year, teams developed a series of high-school level lesson plans focused on biotechnology, pollinators and invasive species. These lessons align with science standards (Nebraska and Next Generation Science Standards) and are suitable for use in secondary science classrooms.		
<i>Grade Levels: 10-12</i>		
Feeding the World: Connecting Your Students to International Agriculture	Will Fett	Sachem West
The world population is expected to reach 9 billion by the year 2050. Understanding how U.S. agriculture fits into the global economy can be a great way to inspire your students to take part in the international issue of sustainable food production. Compare agriculture in Latin America and Africa with what is done here at home. This is a great way of connecting social studies issues, geography, culture and more through discussions and research. Apply science and technology concepts as well. Challenge your students to think GLOBALLY with this fast paced and hands on workshop.		
<i>Grade Levels: All levels</i>		
Turn Ag Stories To Ag Movies	Cheryl Bombenger	Mohave East
With writing as a key means of communication in the 21st Century, learn how to teach your students to create Animoto video productions to share on the big screen for Literacy Night. Bring your computer and photos and go from teaching ag lessons, to writing an informed narrative, to creating a production with facts, photos, music, and more. This is a make and take: make a movie on your computer to take with you. Students from grade 3 on, as well as state coordinators and directors will enjoy the excitement while telling an ag story as a movie.		
<i>Grade Levels: All levels</i>		

The Geography of Agriculture	Denise Stewardson	Mohave West
Come explore the five new agriculture-related lessons created for the secondary AP Human Geography curriculum. Topics include: U.S. agricultural production regions, global trade and interdependence, global food security, GMOs and organic foods, and the role of women in global agriculture. Learn about the nationwide pilot of these lessons and the impact that National Agriculture in the Classroom is having on the study of geography.		
<i>Grade Levels: 10-12</i>		
Bringing Biotechnology to Life	Angela Mayfield	Kiva Room
"Bringing Biotechnology to Life" is a turn-key resource for educators and others interested in learning more about biotechnology and its role in food production. This unit of instruction addresses national learning standards for 7th – 10th grade, yet the interest level may be much broader. Seven sequential lessons guide the learner through the process of understanding DNA, selective breeding over time, biotechnology today, and GMOs. Join the discussion and exploration as we equip you with lesson plans and try engaging activities!		
<i>Grade Levels: 7-9</i>		
Mooing and Chewing Around Wisconsin	Ashley Prue	Arizona Room
Farmers don't just work in the spring and harvest crops in the fall. Farmers work ALL YEAR round. Come see how farmers keep Wisconsin mooing forward. As we go from season to season, we will have fun activities and lessons for grades K-6, and all activities are adaptable. We will finish this adventure with some mootastic trivia from the cheese head lady. This will be a cheesy experience you will not want to miss.		
<i>Grade Levels: 3-6</i>		
3:30 PM - 3:45 PM	Coffee Break	



Apache Junction by Andrei Stoica - *Visit Arizona Site*

WORKSHOP SESSION 2		3:45 – 5:00PM
The QUEST for the Whole Enchilada	Melinda Jackson, Traci Curry	Aztec A
<p>The NM state question “Red or Green?” is the perfect example of how New Mexicans have survived together, maintained our heritages, and thrived to create a unique multi-cultural legacy. Our cuisine is a literal expression of the blending of ag products from all parts of the world. The enchilada is a result of those who were here, and those who came after. This project explores products, farming areas, and nutrition of several key NM commodities; and how those products combine to make an easy traditional dish. Students categorize, research, graph and present. The project culminates with a food lab.</p>		
<i>Grade Levels: 7-9</i>		
Growing A Classroom Through the Study of Seeds	Tanna Nicely, Chris Fleming, Courtney Bennett	Aztec B
<p>This session will inspire participants as they learn about where our food comes through the study of seeds. We will share our favorite books on seeds, look at the anatomy of a seed, experiment with different kinds of plant growth, compare seeds in a 16 bean soup, and of course sample the delicious seeds! Come away with a packet of resources as well as a bag of free stuff and a chance to win some fabulous door prizes!</p>		
<i>Grade Levels: 3-6</i>		
Growing Literacy with Agriculture Book Bundles	Sue Knott	Aztec C
<p>Discover how agricultural animals, plants, and food can support academic standards in English Language Arts, Science, and Social Studies! Participants will review agricultural themed children's books from Minnesota Agriculture in the Classroom's two new book bundles – K-2nd grade focused bundle of 10 books and 3rd-5th grade focused bundle of 10 books. Attendees will also complete standards-based, hands-on activities connected to these books. The book bundles and their companion educator guides, as well as the activities, will provide the basis for brainstorming and discussion about utilizing these resources as an entry point for integrating agriculture in classrooms and curricula.</p>		
<i>Grade Levels: Pre K-2</i>		
Math and Agriculture: A perfect fit	Christopher Szkutak	Sahuaros
<p>Participants will be lead through a series of activities that directly connect agriculture with Common Core math standards, highlighting the ease of which these can be applied in their classroom.</p>		
<i>Grade Levels: 10-12</i>		
Journey of a Gene - Bringing Biotechnology to the Classroom	Stacie Turnbull	Sachem East
<p>Biotechnology takes center stage as teachers will be introduced to materials which will take the audience both into the field and into the laboratory, as they focus on the science behind the technology of genetic engineering. An online learning resource, The Journey of the Gene, along with a plethora of lesson plans, allow the teacher and student to increase their knowledge of the science, along with the social implications of biotechnology. Teachers will receive a flash drive with lessons, developed by practicing teachers and biotechnology industry expertise (through the TASRs/NCAL program).</p>		
<i>Grade Levels: 10-12</i>		

Feeding the World: Connecting Your Students to International Agriculture		Will Fett	Sachem West
The world population is expected to reach 9 billion by the year 2045. Understanding how U.S. agriculture fits into the global economy can be a great way to inspire your students to take part in the international issue of sustainable food production. Compare agriculture in Latin America and Africa with what is done here at home. This is a great way of connecting social studies issues, geography, culture and more through discussions and research. Apply science and technology concepts as well. Challenge your students to think GLOBALLY with this fast paced and hands on workshop.			
<i>Grade Levels: All levels</i>			
Scientists' Theater in Full Bloom		Jill Vigesaa, Virginia Deitz	Mohave East
The stage is set! It's full "STEAM" ahead with simulation and role-playing contexts to demonstrate the biological process of capturing the sun's energy, its transformation, and interaction with other essential factors on earth. From microorganisms to majestic redwoods and whales, we will showcase how all living organisms depend on plants and photosynthesis. Research supports that brain-based learning strategies of role-play and simulation increase the transfer of knowledge and meaning, provide emotional connections to real life, and are highly motivating. The highly interactive Food, Land & People Lesson "Gifts from the Sun" will be featured.			
<i>Grade Levels: All levels</i>			
Journey 2050		Lindsey Verhaeghe	Mohave West
How will we sustainably feed 9 billion people by the year 2050? Journey 2050 allows schools to experience agriculture like it's never been taught before. As Grade 7-12+ students explore sustainable agriculture they make inquiry-based decisions to see the ripple effect on social, economic and environmental factors locally and globally. Farm families guide students through interactive games such as a virtual farm simulation. Lesson plans are provided in this free, curriculum-based program. Attend this information session to play the games and hear how you can use it in your community. Food is life. Sustainable food is our future.			
<i>Grade Levels: 7-9</i>			
Bringing Biotechnology to Life		Angela Mayfield	Kiva Room
"Bringing Biotechnology to Life" is a turn-key resource for educators and others interested in learning more about biotechnology and its role in food production. This unit of instruction addresses national learning standards for 7th – 10th grade, yet the interest level may be much broader. Seven sequential lessons guide the learner through the process of understanding DNA, selective breeding over time, biotechnology today, and GMOs. Join the discussion and exploration as we equip you with lesson plans and try engaging activities!			
<i>Grade Levels: 7-9</i>			
Write your way to the farm		Katie Aikins, Sarahbeth Belvado	Arizona Room
Learn how one school teamed up with their State Ag in the Classroom Program to literally bring agriculture into the classroom. Participants will see how the program matched all grade levels with individual farmers and ranchers across the state for an interactive pen-pal program that included letters, classroom visits and Skype field trips. Participants will Skype with one of the producers that participated in the program and see video from the year-long project.			
<i>Grade Levels: All levels</i>			
5:30 PM - 6:30 PM	Reception		Wigwam Foyer
6:30 PM - 9:00 PM	Opening Dinner - Ag Advocate Award, Live Auction		Wigwam Ballroom

THURSDAY, JUNE 23, 2016

7:30 AM - 9:00 PM	Registration Open	
7:30 AM - 9:00 AM	Breakfast - White Reinhardt and CHS Awards	Wigwam Ballroom
WORKSHOP SESSION 3		9:15 – 10:30AM
Engaging all Students: Adding Agriculture into the K-5 Classroom	Lisa Ann Taylor, Sarah Glenn	Aztec A
<p>We will show teachers how to look at their current curriculum through an “agricultural” lens using age-appropriate literature. The presentation will also demonstrate how to incorporate agricultural products into Science projects and experiments and how to develop Writing lessons based on these experiments. We will show teachers how to use agriculture as a theme and work their core curriculum around it in a project-based approach. Teachers will learn how to incorporate STEM activities into agriculture themed lessons. These activities will help all students become engaged as they learn the importance of agriculture!</p>		
<i>Grade Levels: 3-6</i>		
The A-MAZE-ING Mississippi River	Margaret Budde, Tanna Nicely	Aztec B
<p>The Mississippi River flows in an amazing maze through America's farmland from the wheat farms in Minnesota along the upper Mississippi to the sugarcane farms of Louisiana in the river's delta. The river is the lifeblood of our country and is responsible for transporting the millions of tons of commodities produced in the states that border this waterway and its tributaries. Join your fellow conference companions in this session to explore how we ship our commodities to the WORLD on the Mighty Mississippi while learning many ideas for science, math and social studies lessons.</p>		
<i>Grade Levels: 3-6</i>		
Language Arts & Agriculture	Cindy Hall	Aztec C
<p>Integrating agriculture into language arts instruction is great way to teach about agriculture! But there's more to it than including a good agriculture book in the lesson. In this fast-paced session we'll share strategies for how to specifically use the great agriculture books we love to build reading and comprehension skills. The session will also showcase language arts teaching strategies and examples of how teachers are using student publications like Iowa Ag Today and Ag Mags as a component of their regular language arts instruction.</p>		
<i>Grade Levels: 3-6</i>		
Got Gas?	Betty Wolanyk	Sahuaro
<p>Is animal agriculture one of the greatest contributors to the greenhouse gasses that cause global warming? This workshop will use three activities to answer that question. First, with a hands-on activity, students compare amount of gas production of single stomached digestion (humans, pigs, fish, poultry), ruminant digestion (cattle,sheep, goats), pseudo-ruminant digestion (horses, rabbits) if any. While that activity processes, students will learn about the greenhouse effect and what are the greenhouse gasses. Third, on-line comments will be evaluated by participants in a critical thinking activity examining science-based evidence against claims. Students will then discuss outcomes and issues.</p>		
<i>Grade Levels: 7-9</i>		
CyberSheep: Teach Genetics with a Sheep Breeding Simulation	Diana Webber	Sachem East
<p>CyberSheep is an interactive, internet-based game that offers students a real-world application of genetics. In this game, student teams own virtual flocks of sheep, and teams compete to make the most genetic gain in the flock and/or earn the most money. Students must use their knowledge of genetics to eliminate the Spider Lamb Syndrome allele from the flock by purchasing virtual DNA tests and completing Punnett Squares. Students will love this interactive game and will master genetics with this real-world application.</p>		
<i>Grade Levels: 10-12</i>		



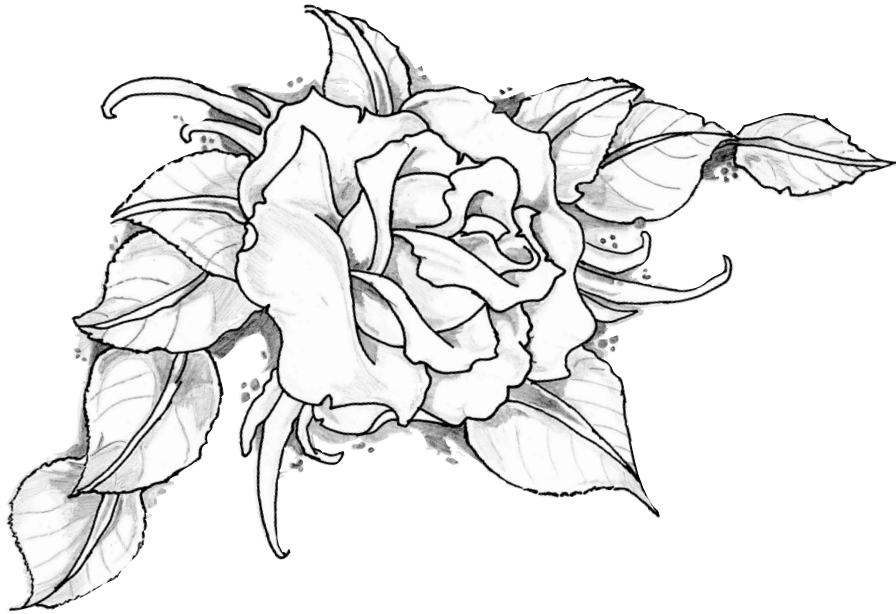
Monument Valley - Visit Arizona Site

Engaging Girls in STEM Education	Natosha Newton	Sachem West
STEM Education is important for all but are our girls really getting all they need to be engineers, scientists, or mathematicians. In my presentation, "Engaging Girls in STEM Education" educators will be presented with teaching strategies based on research and practice that engage girls in Project Based Learning as well as Independent Inquiry. The three labs conducted tie into agriculture and learning more about the food we grow and the structures we build in order to grow field. Educators will leave with lesson plans, resources, and activities to use in their classrooms. Not limited to girls, materials are boy friendly.		
<i>Grade Levels: 3-6</i>		
Sharing a Watershed!	Pamela Justice	Mohave East
Balancing the needs of of all water users is difficult at best. And when you live in the arid southwest it becomes even harder to find a compromise. Let's examine the inputs and outputs of the Colorado River system as an example of a water source that has been over allocated over many years and the policies that place ag as the first user to lose their water allocation if our drought in the West continues.		
<i>Grade Levels: 7-9</i>		
NPK! Fun with Fertilizer Facts!	DeAnn Tenhunfeld	Mohave West
This workshop will focus on soil nutrients and what plants need. Featuring fertilizer fact sheets and lesson plans from CFAITC, students will be plant doctors, play NPK Jeopardy, and make a special tea bag! Participants will come away with free resources to use in their classrooms.		
<i>Grade Levels: 7-9</i>		
First Peas to the Table	Angela Mayfield	Kiva Room
Discover how to create an integrated growing experience in your classroom for all students! Dive in to the new educator resources supporting Susan Grigsby's popular "First Peas to the Table" children's book. Learn how to facilitate a First Peas competition in your class, while getting students hooked on science!		
<i>Grade Levels: 3-6</i>		
Eggs in the Classroom: Lesson Plans for All Ages	Jacinta LeDonne	Arizona Room
American Egg Board will highlight our latest lesson plans, newest virtual field trip, and eggsperiments that can be used across the board in classrooms. Teachers will learn fun, creative ways to include eggs in their curriculum. From Technology on the farm, to a reduction in environmental foot print, to eggs and nutrition, teachers will walk away with knowledge, lesson plans, resources relating to eggs and how eggs go from the hen to the home.		
<i>Grade Levels: All levels</i>		
10:30 AM – 10:45 AM	Coffee Break	

WORKSHOP SESSION 4		10:45AM – 12:00PM
Come 'eat, drink and be merry' while doing Ag-Science activities	Craig Wilson	Aztec A
<p>Observation is the basis of all of the Sciences. This session will help you to understand how we observe and help you to hone your own observation skills. It is also 'minds-on' as QUESTIONS are the lifeblood of Science... You will engage in hands-on activities that can be easily and cheaply replicated to explain Ag-Science concepts. Learn how to access the resources of your local USDA/Agricultural Research Service (ARS) laboratory that wants to help you through educational outreach. There are ninety such labs nationwide. Leave with a template to guide students into a career in the Agricultural Sciences.</p>		
<i>Grade Levels: All levels</i>		
AgLIT (Agricultural Literacy through Innovative Technology): A Fully STEM-Integrated, Project-Based, Upper-Elementary Curriculum Module	Farah L. Vallera	Aztec B
<p>AgLIT is a free 10-day fully STEM-integrated, upper-elementary agricultural literacy curriculum designed to increase students' agricultural and STEM knowledge, skills, and attitudes/beliefs using innovative technology and project-based tasks. AgLIT provides teachers with content knowledge, notes about misconceptions, and connections to STEM subjects. It includes an iBook, hands-on activities, formative and summative assessments, and was effectively tested in an urban district. For example, students analyzed soil samples like scientists, used Web GIS to study agricultural trends, engineered new egg cartons, and calculated ingredients for cheese-making. Workshop participants will review materials, participate in activities, and receive access to the module and assessments.</p>		
<i>Grade Levels: 3-6</i>		
Tech and Ag	Angela McCullough, Shawn Dzielawa	Aztec C
<p>Have you ever wanted to use technology to create interactive lessons or provide a digital learning journal for parents to see? Utilizing technology to enhance agricultural concepts while satisfying the common core standards enables teachers to make the agriculture come to life for their students. Nearpod and Seesaw Learning journal are two programs that will be explored during the workshop to see agricultural concepts and literacy come alive while allowing parents to see a glimpse inside your classroom sharing students' projects and activities. Seesaw empowers students to capture their learning with photos and videos to be shared with parents. Nearpod provides educators with the ability to create or select interactive lessons to be utilized in the classroom. Workshop attendees are encourage to bring their device with them to learn how to make Nearpod presentations and set up their Seesaw Learning Journal for the fall.</p>		
<i>Grade Levels: Pre K-2</i>		
Growing with Grains	Becky Ridgeway, Terry Serio	Sahuaro
<p>Explore the world of whole grains through Growing with Grains. Take a closer look at how you can use whole grain education in your classroom, while teaching students about the different uses grains play in their every day lives. While exploring this world of grains we will take a closer look at showing students how grains play an important role in their digestive system by building your own reusable digestive system.</p>		
<i>Grade Levels: 3-6</i>		
Pollinators in the High School Biology Classroom	Erin Ingram, Mary Morrow, Cory Forbes, Molly Brandt	Sachem East
<p>Every year in the U.S., insect pollinators provide an estimated \$29 billion dollars in agricultural value through increased crop quality and yield. Without bees and other pollinating insects to deliver this valuable ecosystem service, many highly nutritious and flavorful foods such as fruits, nuts, and vegetables would be missing from our diet. We will be presenting a pollinator-themed lesson developed for the high school biology classroom as part of the Translating Applied STEM Research into Secondary Science (TASRS) summer program through the National Center for Agricultural Literacy (NCAL).</p>		
<i>Grade Levels: 10-12</i>		

Engaging Girls in STEM Education	Natosha Newton	Sachem West
STEM Education is important for all but are our girls really getting all they need to be engineers, scientists, or mathematicians. In my presentation, "Engaging Girls in STEM Education" educators will be presented with teaching strategies based on research and practice that engage girls in Project Based Learning as well as Independent Inquiry. The three labs conducted tie into agriculture and learning more about the food we grow and the structures we build in order to grow field. Educators will leave with lesson plans, resources, and activities to use in their classrooms. Not limited to girls, materials are boy friendly.		
<i>Grade Levels: 3-6</i>		
The 4Rs of Nutrient Stewardship	Tiffany Ballow, Rick Phillips	Mohave East
Scientists estimate the Earth will hold 9 billion people by 2050. How will we feed growing population sustainably? The answer is soil nutrients. This workshop includes the premiere of the 4R activity book for third and fourth grade, a new middle school lesson plan on the 4Rs, and the high school environmental science resource. The workshop includes hands-on activities about soil science that teachers can replicate in their classrooms, such as the nutrient word scramble. By the end of the workshop, educators will be equipped with materials, activities, and resources to take their soil science unit to the next level!		
<i>Grade Levels: All levels</i>		
Classroom to the Cafeteria: Using an Untapped Farm to School Resource	Misty Friedman, Rich Friedman	Mohave West
The school cafeteria, what an untapped education center! Through our presentation we will show how the school nutrition staff and the cafeteria can be used as a classroom tool! Learning fractions? Travel to the cafeteria to increase/decrease a recipe! Talking about ag careers? Meet a farmer that grew the food in the cafeteria! Working on childhood nutrition? Work with the kids on planning a healthy lunch menu or snack! We will demonstrate through hands on activities how a simple field trip to the cafeteria can open an endless amount of classroom activities!		
<i>Grade Levels: All levels</i>		
Planting the Seeds of Agriculture	Karrie Perrin	Kiva Room
Tired of the same old thing...come get rejuvenated and encouraged as you explore how one teacher plants the seeds of agriculture in the everyday lives of her students and colleagues. This is a workshop designed to give you a hands-on approach to building a toolbox of a variety of innovative "ag"tivities for cultivating a love of agriculture along with a list of children's literature and web resources. Let's get digging!		
<i>Grade Levels: 3-6</i>		
"Ag"tivated About Pumpkins	Lynne Gibson, Stephanie Young	Arizona Room
This lesson is about the Life Cycle of a Pumpkin. Students build vocabulary, learn how to document in a Science Journal, plant and care for pumpkin plants, learn about the stages of the life cycle, and harvest the fruit. Literacy emphasis will include vocabulary regarding life cycle, including the four scientific processes: germination, pollination, fertilization, and seed dispersal, parts of a mature pumpkin-inside and out, and adjectives that describe the pumpkin parts. Students will learn types of soil in which pumpkin plants grow, how to water, how to prevent damage from insects and other predators.		
<i>Grade Levels: Pre K-2</i>		
12:15 PM – 2:00 PM	LUNCHEON Excellence in Teaching about Agriculture Awards	Wigwam Ballroom

WORKSHOP SESSION 5		2:15 – 3:30PM
SOIL activities to get your hands soiled but not dirty. Dirt is soil that is 'out of place'.	Craig Wilson	Aztec A
Soil is, metaphorically, the bedrock of agriculture and some soils, literally, derive from the bedrock. Engage in simple 'soils-on' activities that will educate you and, hopefully the students with whom you work, in the basics of Soil Science. All materials will be supplied and are easily and cheaply acquired. The activities are easily replicated. Experience different soil particle sizes and see how various scientific skills: observation, classification, sorting and experimenting can be developed using soils as the raw material. Agriculture starts with the soil...		
<i>Grade Levels: All levels</i>		
Drive Through Florida:Vegetables	Arlette Roberge	Aztec B
Florida Agriculture in the Classroom and the Florida Department of Agriculture and Consumer Services have jointly developed the second in a series of books entitled "Drive through Florida: Vegetables." This 2016 Florida Agriculture Literacy Day book will feature 11 top vegetable commodities in a non-fiction format. Students will learn about growing regions, availability, common uses and nutritional attributes of each commodity as volunteers read the book in classrooms throughout Florida. This presentation will provide books for attendees to use in their educational settings and resources which will allow them to compare Florida vegetable commodities to those in their own state.		
<i>Grade Levels: 3-6</i>		
Engaging with Multi-media Ag Texts	Brad Banning	Aztec C
Informational texts come in many different forms. This presentation examines how to find and engage with informational agriculture texts across different mediums. We'll explore how to make connections between texts, how to promote critical thinking about texts, and how to use agricultural themed texts to help reach different state language arts standards.		
<i>Grade Levels: All levels</i>		
Pizza Comes From Farms?	Stacy DeVeau	Sahuaro
Learn how to use pizza to make your students aware of the source of all of our food: AGRICULTURE! This simple demonstration lesson engages students in learning about how many farms are necessary to make this popular food!		
<i>Grade Levels: 3-6</i>		
Strategies for 3-D Learning with Agriculture	Debra Spielmaker	Sachem East
Explore teaching and learning strategies that will demonstrate how agricultural literacy concepts and activities can be integrated into the three dimensions of the Next Generation Science Standards–Disciplinary Core Ideas, Scientific and Engineering Practices, and Cross Cutting Concepts.		
<i>Grade Levels: All levels</i>		
Growing STEMs	Jennifer Bates, Dr. Rachael Flynn-Hopper	Sachem West
Research shows that agriculture literacy is inadequate among Americans. Many students believe that cotton grows on sheep and strawberry milk derives from a red cow. Belmont University, Portland High School, and Clyde Riggs Elementary collaborate to implement a STEM Day on the campus of Portland High School. It is a demonstration of the commitment of learners of all ages, who are sharing their knowledge and passion for connecting STEM across the curriculum. The goal of this workshop is to showcase partnerships among schools, universities, and the community. Presenters will discuss practical, hands-on activities that bring learning to life!		
<i>Grade Levels: All levels</i>		



We All Need Trees	Suzi Myers, Debbie Ruff	Mohave East
<p>Everyday we use products that come from trees. Students are often asked, "Should we cut down trees?" The response is always, "NO, never cut down a tree!" Participants will understand the importance of trees, products from trees, careers, forestry management, and more. Hands-on activities and literature connections will be shared to assist participants in their outreach efforts.</p>		
<i>Grade Levels: All levels</i>		
Aquaponics in the Classroom	Randy Mann	Mohave West
<p>The presentation will cover the physical set up of a 40 gallon aquaponics system in the classroom. The presentation will explain the care and maintenance involved in running the aquaponic system in the classroom. It will also detail the types of plants and fish that I have had success in growing in the system. In addition, the presentation will show how water flows through the system and how nitrifying bacteria works in order to keep the system working properly.</p>		
<i>Grade Levels: All levels</i>		
It's Elementary – Learning the Basics of the Periodic Table	Debra Wagner	Kiva Room
<p>Make teaching the Periodic Table easy for students in 3rd through 6th grade by attending this session that ties elements in the Periodic Table to nutrients plants and humans need. Students will learn the symbol for each of the essential nutrients in the Periodic Table, place it next to the plant from which it originates and then link it to the human body part it benefits most. Workshop participants will receive a copy of Florida Agriculture in the Classroom's K-12 school garden curriculum Gardening for Nutrition which includes the lesson 'In Search of Essential Nutrients' which this activity is tied.</p>		
<i>Grade Levels: 3-6</i>		
Harvesting Crops and Careers & Consider the "Pulseabilities"	Lorri Brenneman	Arizona Room
<p>Join us in learning about Harvesting: Crops and Careers, the educational project examining harvesting across America. Focus on in depth views of social issues, the business of harvesting our food, and related careers. Also, pulse crops are an ancient and diversified food that have been somewhat overlooked as our diets now focus on other grains. Participants will learn about the United Nations 2016 "International Year of the Pulses" and why pulse crops are good business, good for the environment, and good for us. Connections: FCS, ELA, STEM, and careers. Includes lesson plans and classroom readers.</p>		
<i>Grade Levels: All levels</i>		
3:30 PM – 3:45 PM	Coffee Break	

WORKSHOP SESSION 6		3:45 – 5:00PM
The Mall of the Future vs. The Ag Mall	Beth Switzer	Aztec A
Mall of the Future vs. Ag Mall utilizes a Prezi presentation to take students virtually through the two different malls. Each student is given \$50 of imaginary money where they are required to purchase items from the 5 different stores as they “travel” through the malls. Although this sounds easy, they quickly learn that without agriculture, their food selection in the Mall of the Future consists of a bottle of water. The food that existed in the past is no longer available because farm land has been destroyed. Through this experience, they quickly realize how agriculture touches their everyday lives!		
<i>Grade Levels: 3-6</i>		
Making Connections to Everyday Learning	Elizabeth Russell, Jennifer Gray	Aztec B
This workshop would show teachers how to start with their agriscience standards and work backwards to make connections between those standards and the state standards by focusing on one subject at a time. Then expand from there to the vast array of resources available for them to use to keep students engaged with STEM activities that connect reading and writing.		
<i>Grade Levels: All levels</i>		
What's Your Beef?	Tiffany Selchow	Aztec C
Wait, Facebook tells you this type of beef is better! And then you hear something completely different from another person on Twitter. So, the question is what is your beef? And how do you know which one to choose? Grass fed, grain fed, natural, or organic? The Arizona Beef Council will cover those questions and more with some info and a whole lot of fun. Plus, a chance at prizes!		
<i>Grade Levels: 10-12</i>		
Cultivating Agriculture through the Arts	Erica Summerlin, Darlene Petranick	Sahuaro
Are you a K-2 teacher? Tired of going to workshops and not having sessions for your grade level? Looking for ways to make learning fun and more engaging? Well come to our session “Cultivating Agriculture through the Arts.” In this session you will be given an activity guide that uses a piece of literature that will introduce an agricultural concept. Activities in the guide will integrate agriculture into the arts and core subject areas. Go back to your school excited to use drama, music, art, and storytelling to teach the story of agriculture.		
<i>Grade Levels: Pre K-2</i>		
The Quad Squad: Drones in Agriculture	Denise Stewardson	Sachem East
One of the “hottest” topics in agricultural technology is the use of unmanned aerial vehicles. Come try your hand at flying a quadcopter—a type of drone—and explore the potential of using this technology in making agricultural production more efficient. Learn about secondary teacher workshops that incorporate practical, hands-on experience in designing, building, and operating quadcopters that simulate the real-world application of monitoring agricultural production. Curriculum resources in the areas of agricultural education, technology and engineering education, and science education are being developed that promote STEM and increase students’ future engagement in agricultural STEM fields.		
<i>Grade Levels: 10-12</i>		

Standards-based education: S.T.E.A.M. lessons for grades 3-6	Browning Neddeau	Sachem West
Participants will engage in standards-based science, technology, engineering, arts, and mathematics (S.T.E.A.M.) lessons that underscore the importance of tools in agriculture and how advances in tools can increase efficiency and reduce labor. Connections will be made to both the Next Generation Science Standards and the Common Core State Standards throughout the workshop. Participants will leave the workshop with lesson ideas that can be immediately implemented in meaningful ways across the curriculum, especially in third through sixth grades.		
<i>Grade Levels: 3-6</i>		
BUGDORK! Using insects to engage students and inspire learning	Kristie Reddick, Jessica Honaker	Mohave East
Learn myriad ways you can use arthropods in the classroom! Entomologist and educator Kristie Reddick of The Bug Chicks, will help you conquer your fears and gain knowledge about animals that inspire inquiry in your students. Includes: digital microscope training with Celestron handheld scopes, lessons to use immediately, integration of scientific concepts.		
<i>Grade Levels: All levels</i>		
The Blooming Mystery	Mary Beth Bennett	Mohave West
Come learn about the mystery behind the blooms and the reasons why our youth should be concerned about our pollinators. Learn about native pollinators and the plants that we should be planting to conserve them. This workshop will address related issues and answer the following questions. What foods do pollinators affect? Who are our native pollinators and where do they get their food after the crops have stopped blooming? What can we do to help pollinators? How do we engage youth in understanding the role of pollinators in our world? What careers are involved related to this topic?		
<i>Grade Levels: 7-9</i>		
Desert Greenhouses	Jennifer Esposito	Kiva Room
Liberty Elementary middle school teachers created a project based learning unit, which culminated in the creation of greenhouses in the desert. Middle school teachers were responsible for teaching modules: scale drawing and models, informational pamphlets, SketchUp drafting software, research, safety 101 - tools, putting the pieces together and problem solving. The final project was concluded by a school wide assembly presenting each greenhouse to K-8 classrooms and students. Upper grade levels were paired with younger grade levels to share and embrace this experience. Throughout the year, each grade level was responsible for planting and caring for their garden.		
<i>Grade Levels: All levels</i>		
Building from the Bag	Dr. Eugenia Badger	Arizona Room
Students will collect materials from books, catalogs, and magazines to explain a topic, such as their past, present, and future OR their favorite things to do, make, or eat. Once these items (usually three) are in the bag, students will gather materials from the internet, books, catalogs, or magazines to trace their original three items back to the land and agriculture. For example, horses are presently my favorite thing. I can link this to grass, grain, land, etc. The collections can change to storyboards for public speaking, writing, etc.		
<i>Grade Levels: All levels</i>		
6:15 PM - 8:30 PM	Fiesta on the Lawn - Buffet and Networking	

FRIDAY, JUNE 24, 2016

7:00 AM - 8:45 AM	CLOSING BREAKFAST - Thank you Arizona, Hello Kansas City! KEYNOTE ADDRESS: 'Fluent in 'Bug': The magical language that inspires learning' The Bug Chicks: Kristie Reddick, Jessica Honaker	Wigwam Ballroom
-------------------	--	-----------------



The Bug Chicks: Kristie Reddick, Jessica Honaker

Kristie Reddick, M.S. and Jessica Honaker, M.S. are The Bug Chicks, entomologists who teach about the fascinating world of insects, spiders and their relatives. Through videos, digital media and in-person appearances they inspire people to open their minds and learn about these often-maligned animals. Their drive to create fun, accurate science media has led them to work with some amazing organizations: the U.S. Forest Service, Norman Borlaug Institute of International Agriculture, and National Ag Science Center, to name a few! Bug Chicks workshops have been praised for their focus on Women in Science, positive female role modeling and using arthropods to talk about social justice issues with teens.

MINI WORKSHOPS

9:00 AM - 9:25 AM	Mini Workshop 1	10:00 AM - 10:25 AM	Mini Workshop 3
9:30 AM - 9:55 AM	Mini Workshop 2	10:30 AM - 11:00 AM	Mini Workshop 4
Gardens In And Out Of Your School		Kevin Duplissie	Aztec A
Empowering parents/teachers that they have the necessary creativity and materials in their homes/schools (or purchase for very low cost) that can encourage agriculture learning at home/school. This workshop will demonstrate fun and easy agriculture activities that can be conducted as families or groups (schools), that encourage cooperation and participation of all family members or group members (schools), enhance the early learning of agriculture, link activities, cooking projects and books, and always encouraging fun. Handouts provided, participation in small groups encouraged, and 2x2 gardens demonstrated.			
Grade Levels: Pre K-2			
Pizz-A-Thon: Engaging Activities to Teach Ag Literacy		Liz Sample	Aztec B
Participants learn the source of their food, and understand the importance of soil conservation. After researching, they create what they think is the best pizza, trace its ingredients from slice to soil, become acquainted with the many career opportunities, develop a marketing plan, bake the pizza, and present a marketing report in front of a panel of judges. Through cooperative experiential learning, kids are engaged in exploring, discovering and creating, as they develop skills in leadership and discover their self-worth. They experiment and discover the value of conservation.			
Grade Levels: 3-6			
Beautiful Bees		Luci Eblin	Aztec C
Learn about the Bee Unit packet which includes a K-2 bee literature list. Meet the Apiarist from Sun Tan Honey Farm in Buckeye, AZ, who will come to local schools for free.			
Grade Levels: Pre K-2			
Poultry in the Classroom		Todd Willis	Sahuaro
I would like to demonstrate how my third graders grow laying hens from chicks to laying hens within the school year. We order day old chicks in August and raise them to laying by the first of March. Students care for hens and gather eggs daily. Students are engaged in washing, weighing and grading, marketing, and selling classroom eggs. Topics will also include how to set up individual cages workstation time of 15 minutes per day. Also, many examples of how students get the real world connection to Common Core math units through our Cooking with Math workstation.			
Grade Levels: 3-6			

Tasty Tips for Taste Tests!	DeAnn Tenhunfeld, Judy Culbertson	Sachem East
The Taste Test presentation will include information on how to administer taste tests, use of agricultural fruit and vegetable commodity fact sheets, and participation in a taste test. Participants will receive a set of CFAITC's Fact Sheets.		
<i>Grade Levels: 3-6</i>		
AgExplorations	Kristie Popa	Sachem West
The AgExplorations program is centered around a select group of teens interested in agriculture. Through this program, youth are engaged in a multi-day agricultural tour where they will ask and answer many important questions posed by industry professionals and their peers. After the tour, youth will attend a multi-day workshop where they will gain skills and knowledge related to agriculture through hands-on activities and lessons. Within cooperative groups, these students will adopt a local classroom where they will teach about agriculture through hands-on activities covering topics from Ag and Stem to Career Exploration and food and nutrition.		
<i>Grade Levels: 10-12</i>		
Awesome Openings and Outstanding Endings	Sue Knott	Mohave East
Have you ever had a fantastic agricultural activity planned but were unsure how to grab the audience's attention to get started? Or maybe the conclusion to your lesson didn't exactly allow you to leave on a "high note"? Attend this mini-session to learn some techniques to have an awesome opening that builds excitement from the very beginning of your interaction. Summarizing and wrap-up strategies will also be shared to ensure an outstanding ending. Be prepared to gain new tips and tricks, and also share your experiences and ideas during this interactive mini-session.		
<i>Grade Levels: All levels</i>		
Agriculture Education Joins the 21st Century - Online Agriculture Classes	Kassi Simpson, Leroy Nelson	Mohave West
There is no doubt, our world (and our students' world) is immersed in technology; so why should our educational programs be any different? The Nelson Academy of Agriculture Sciences Online offers over 20 different high quality online agriculture courses. Come see how you can strengthen your agriculture program by adding these classes to your course list.		
<i>Grade Levels: 10-12</i>		
Fruits, Nuts, and Veggies, Oh My!	Audrey Harmon, Cheri Long	Kiva Room
This workshop will focus on fruits, nuts and veggies such as asparagus, pears, and pecans. Learn how to integrate STEM into your classroom while conducting science experiments, linking resources to Aurasma and Kahoot, and using food to create and solve math equations. Hands-on, engaging, and exciting activities will have students wanting to learn more about agricultural careers.		
<i>Grade Levels: All levels</i>		
Newspaper Ag Bags	Virginia Deitz, Jill Vigesaa	Arizona Room
"It's in the Ag Bag!" Learn how to make a quick bag from a sheet of newspaper, with no other materials needed! You might want to decorate and put handles on it, but more importantly you will want to use it as an easy way to recycle newspapers into classroom agriculture literacy efforts. This interactive hands-on presentation will include ideas and projects that have been successfully implemented, with resources for students to "Fill their Ag Bags!"		
<i>Grade Levels: All levels</i>		
11:00 AM - 2:00 PM	Exhibit Break-down	Wigwam Foyer