

2018 TAEF Conference Workshops and Sessions

Friday, October 5, 2018

Connecting a Diversity of Learning to the Natural World: Project A.C.O.R.N. (Area Children Organized to Replant Natives)

Rubi DeHoyos & Kent Page, Northside ISD

Join Northside ISD in San Antonio with their innovative program, Project A.C.O.R.N.. Project ACORN is a place-based, interdisciplinary environmental education program connecting students to their natural world. Participants will gain an introductory knowledge of what Project ACORN is, how it can serve the diverse needs of learners, how it can be established at a campus and/or how they can offer it at their environmental education site. It is standards based and incorporates TEKS from science, social studies and math. In the district it is being used in both elementary and middle schools. Learn how Project ACORN is adapted at each campus, the importance of community collaborations and how to utilize the technology tools students use to collect environmental data on and off campus. We will use our Project ACORN data collection sheet to have a hands-on experience using a turbidity tube (water protocol), a kestrel and cloud chart (atmosphere protocols), and a data harvest v-logger (atmosphere and soil protocol).

Project WET Educator Workshop

Melissa Mullins, Center for Reservoir and Aquatic Systems, Baylor University

Become a certified Project WET educator and receive the Project WET 2.0 guide! Suitable for those who may have an older version of the guide or for those new to Project WET. Project WET focuses on action-oriented water education in all 50 states and around the world. It is often used in conjunction with other curricula and is a great tool to add to your toolkit! This presentation topic is relevant for those who are involved in water education and wish to expand their access to ready-to-go classroom type activities for K-12 that can be used to complement outdoor and other activities.

Nature Journaling with Project Learning Tree

Misty Bowie, Texas Forestry Association

In this interactive workshop discover how to achieve experiential learning across all subjects by encouraging your students to use a nature journal. Learn how to use PLT activities to build nature journaling skills such as observation, writing, sketching, data collection, and reflection. Each participant will receive Project Learning Tree's TEKS correlated Environmental Education Activity Guide for PreK-8 containing 96 hands-on, interdisciplinary activities along with additional resources and materials that will equip them to implement nature journaling in their classroom, camp, or educational programs.

Saturday, October 6, 2018

Texas Fossils and Geological Time

Isabel Halsey, Texas Association for Environmental Education

Isabel Halsey has been fossil hunting in Texas for 50 years and has a wealth of information to share! Participate in sorting and classifying Texas fossils and make a fossil cast with plaster, Included is a geological timeline activity arranging the main events of earth history in sequence. All activities have been student tested. You will be able to arrange and illustrate the key processes that allowed life to emerge and flourish on this planet. In Texas we live in a fossil hunters environment but you have to know where to look and what to look for. Mini-fossil collections will be given out as door prizes.

Cert 101: How to become a Texas Certified Environmental Educator

Marti Copland, Texas Association for Environmental Education

This presentation will provide an overview of how you can be recognized as a Texas Certified Environmental Educator (TCEE) and will include the goals of the program, application and review process, and required outcomes. The TCEE Program encourages professional development in EE, acknowledges educators committed to environmental stewardship of Texas's natural resources, and establishes standards for of knowledge, skills, and experience that highly qualified Environmental Educators in Texas should be able to demonstrate. The following questions will be addressed: What is certification? What are the goals of the program? What are the benefits of certification? Who should apply? What are the costs of certification? How are the portfolios reviewed?

El Nino-La Nina: The Atmosphere-Ocean Connection

Sudeshna Lahiry, Katy ISD

This workshop will focus on the oceanic circulations and weather extremes that occur due to El Nino and La Nina events. Participants will explore how the global wind patterns and surface currents in the Pacific Ocean react to these changes and understand the world wide implications (ecological, social, and economic) of such climate shifts. They will also receive a chart (provided by The American Meteorological Society) for easily visualizing the ocean and atmospheric conditions in the tropical Pacific during these two events.

Using iNaturalist in the Classroom for Future Policy Change

Sam Kieschnik, Texas Parks & Wildlife Department

The next generation of nature enthusiasts will not get paper cuts from field guides; they will be incorporating technology to nature appreciation. iNaturalist is an effective tool that bridges the gap between nature and technology and it can provide guidance to land management and public policy. Attendees will gain knowledge in the utilization of the citizen science tool iNaturalist in and outside of the classroom. With this tool, students and teachers can explore the outdoors and document their findings digitally, share this with the citizen science community, and contribute data to our understanding of global biodiversity. We will discuss how to successfully use this tool as a project with your students, and we will examine how to curate and interpret the data collected.

How to keep connected: Moderating an Online Learning Community for Teachers

Deborah Mann, Austin Waldorf School

Social media, such as Facebook, can be used to establish a professional learning community where teachers can share successes and ideas when working with a curriculum. This talk will share some observations on what kinds of things might be discussed and how interactions could be encouraged to maintain teacher engagement between professional development events or onsite experiences.

Interested in Becoming a Texas Certified Environmental Educator Application Reviewer for TAAEE?

Marti Copeland, Texas Association for Environmental Education

Do you have skills in teacher preparation in EE, assessment, and/or the NAAEE Guidelines for the Preparation and Professional Development of Environmental Educators? Learn the benefits and expectations to become a peer reviewer and how reviewers will be selected and prepared. This session will provide training in the EE standards and the TCEE portfolio review process for those TAAEE members who would like to serve on a peer review team when applicants submit their portfolios for review.

What can be Learned when Immersed in the Wetlands?

Suzanne Nesmith, Chris Wynveen, Melissa Mullins, Erin Coleman, and Connor Knudsen, Baylor University

Environmental education should be integrated within the entire system of formal education at all levels, yet educators often struggle with successfully integrating EE curriculum, both within and outside the classroom. To address these areas, an onsite wetland EE professional development (PD) experience for science educators was coordinated and facilitated by a group of scientists and science educators. In this session, you will have the opportunity to immerse yourself in wetland field experiences and wetland-appropriate classroom experiences. Learn about the PD experience and the impact of the PD on educators' environmental literacy as revealed through the educators' environmental efficacy, teaching practices, and implementation of EE community service experiences. Participants will gain understanding of and enhance their abilities to construct and incorporate powerful wetland-based field and classroom experiences designed to build environmental knowledge, understanding, values, and skills.

Outcomes, Outputs and Inputs: How to plan for EE outcomes achievement

Marti Copeland, Dallas Zoo

Do you know whether your EE program creates real change, and can you measure it? This session will cover the purposes and components of logic models and provide participants with an opportunity to consider the intended outcomes of their EE program. We will discuss how to plan an EE program with outcomes-based evaluation in mind and share useful techniques for measuring EE outcomes.

Ask Your Own Question - Involving Students in the Inquiry Method

Kiki Corry, Texas Parks & Wildlife Department

Student-driven investigations can be daunting for the educator. How do you help a child develop their big questions into something they can answer themselves? What if you don't even know the answers? The Association for Fish and Wildlife Agencies has activity-based curriculum that guides the educator and children through the process. In true WILD spirit, we will learn by doing it ourselves and discussion from the perspective of both the learner and the educator. Participants will get a deeper understanding of the communicative, collaborative, creative nature of science and

receive hard copies of the activities they do in the session.

Limited Time, Limited Budget – Environmental Elementary School Lessons

Angela Smith & Josue' Diaz, City of Allen

Sometimes we receive opportunities to educate but are only allotted 15 to 30 minutes. Limited funding can also be an issue. This class will go over a few adaptable lessons that are quick, budget conscious (a.k.a. cheap), and make an impression. We will also provide a few helpful tips on how to make the most out of the materials you already have.

Sunday, October 7, 2018

Examining the Social, Environmental, and Humane Realities in a Rural Teacher Education Program

Brandon Fox, Stephen F. Austin University

This presentation examines a curricular approach to social, environmental, and humane education in a teacher preparation program in rural, East Texas. Multiple forms of data will be presented to solicit feedback and ideas for evolving the programmatic approach. Attendees will be provided with an overview of the approach that social, environmental, and humane education is provided to aspiring EC-6 educators. Attendees will examine and review selected resources, learning objectives, and course data to reflect and comment on. Leave this session with ideas for teaching these concepts in formal and informal educational settings.

The Strother Challenge

Amy Kamata, San Antonio Water System/North East ISD

The Strother Challenge is a "moving" experience in more ways than one. Do you have what it takes to be in a wheelchair for 1 day at work? I did. Participants of this session will learn the story behind this challenge, how to operate a wheelchair, and experience first-hand how I applied The Strother Challenge to a 5th Grade Science classroom. We will also look at how being in a wheelchair affects EE and do some reflection. *Please note, this session is limited to the first 10 participants and sitting in/using a wheelchair for this session will be expected. This session will start inside, but will quickly "roll" on to other areas, inside and out.

High Expectations: Teacher, Student, & Community Gulf Coast Watershed Environmental Education

Dr. Teresa LeSage-Clements & Dr. Dmitri Sobolev, University of Houston, Victoria

You would have thought since the 70's people would be more environmentally responsible. Apparently, they are not. According to 'Don't mess with Texas,' littering, especially plastic debris, is everywhere and young people are responsible for most of it. To help change the environmental attitudes of the high school students, teachers, and the community we have been conducting research since 2016 focused on local watershed science instruction, including professional development, water quality testing, and partnerships. Our research is funded by the National Ocean & Atmospheric Administration (NOAA) and Bay Watershed Education & Training (B-WET). This helps provide meaningful high school science teacher environmental professional development, transferring their experiences to the classroom, and a community sustainable stewardship project. This

presentation will present the results and ongoing work of the NOAA B-WET project on the 'Gulf Coast Guadalupe River Watershed Teacher and Student Environmental Education.

Connecting Kids to Nature: Is there a best way?

Shelby Gull-Laird, Stephan F. Austin University

This presentation will explore the best ways to connect kids to nature across the age spectrum from infancy to emergent adult based on research. This presentation will discuss the current state of the research by age group and program type, where the gaps are in the literature as it stands now, and will provide participants with several different scales and qualitative data collection measures to help them measure their own results for connecting their participants to the natural world.

Man vs. Wild: Lessons on People and the Changing Landscape

Dr. DawnElla Rust, Stephen F. Austin University

Engage in multi-disciplinary activities to explore human population changes and impacts on local and global land use and ecosystems. Combine geography, ecology, and STEM skills to address carrying capacity, biodiversity threats, and the human footprint. A number of activity formats that build knowledge and skills in science, math, social studies and communication will be presented, including modeling, concept-mapping, role-playing, cooperative group problem-solving and balanced debate. Receive lessons matched to TEKS.

This is the Air We Breathe

Alicia Mein-Johnson, Humble High School

Asthma affects more than half a million Texas children. It's also a common TEK in Science classrooms. Let's take a walk in the woods and use lichens and notecards to perform simple tests of air quality. Activities can be adapted for elementary through high school students.

Comparative Study of History of Traditional Ecological Knowledge in India & North America and its Historical Relevance to the Modern Era

Dr. Baisakhi Bandyopadhyay, The Asiatic Society, Kolkata, India

India and America both have indigenous societies with deep-rooted traditions that have many pearls of traditional ecological knowledge that makes for an interesting comparative study, given the wide geographical divide between the two. North America has become highly industrialized over the past century and India is rapidly catching up. Both are feeling the harmful effects of environmental degradation that come in the wake of such industrialization and are looking for ways to minimize such effects. Traditional ecological knowledge is a very useful tool in our efforts to provide for sustainable development and maintain our biodiversity. In the past traditional beliefs were often sneered at as superstitions and unnecessary religious practices but are in fact age-old practices for environmental protection in the garb of religious sermons and taboos. We can gain a clearer insight into these practices by a comparative evaluation. It may be possible to underline the need to culture and propagate these practices for better environmental protection. ***Because of the location of the presenter, this presentation will be a prerecorded PowerPoint by the presenter, with a live Skype session with the presenter for a Q & A session.***