

INFORMALLY SPEAKING

The Newsletter of the Informal Science Education Association of Texas

A MESSAGE FROM OUR PRESIDENT

Happy Summer!

Summer time is the best time for families to take advantage of informal science education opportunities. Your local zoo, aquarium, museum or nature center have daily programs or camps that children can spend time exploring nature and challenging their STEM

knowledge.

Informal

education

programs range

from *Mom and*

Me stroller group

to different types

of learning

camps for young

kids to teenagers. With advancements in technology, there are more opportunities for families to learn. Typing a search into any internet search engine will lead to vast amounts of information right at your fingertips. Informal science centers are tasked with keeping up with innovative ways of integrating

technology into creative programming while still effectively engaging families with valuable outdoor experiences. The first years of my informal science career were spent developing hands-on activities for families to explore together when visiting the Texas State

TODAY THE SUMMER HAS
COME AT MY WINDOW WITH
ITS SIGHS AND MURMURS;
AND THE BEES ARE PLYING
THEIR MINSTRELSY AT THE
COURT OF THE FLOWERING
GROVES

- RABINDRANATH TAGORE

problems using simple items and having fun! Many of these items had to be replaced, the local discount store was my best friend! In the end, it was worth every penny. The use of books, markers, paper, and cardboard cutouts shapes turned into science projects! Everyone were unique in their approach to

Aquarium. I

remember

being amazed

watching

family

members

coming

together to

solve

WHAT WE DO FOR YOU!

ISEA is a collective of state wide informal science educators representing museums, zoos, aquariums, state parks, and nature centers with members from formal education. Check out the latest at <https://texasinformal.science.org/> Look for the latest about CAST 2016 in San Antonio as well as access to resources that include links to STEM education tools, national and state education information as well as more about our valuable regional affiliates.

tinkering with various ways of using materials. Families were using critical thinking skills and not even knowing it! As informal educators, we all have stories like this from years of developing and implementing programs. Improvising is key to success in making our programs fun and informative for families. I was encouraged when families left with smiles after participating in our programs. As informal science educators not only do we teach children about nature, physics, math, technology, biology, etc., we also teach the family! As a new mom, my two young children have so many questions about the world, I often turn to Google or YouTube for answers. This summer I took my children on our first

family trip to the Perot Museum, the Oklahoma City Zoo, the National Cowboy and Western Heritage Museum, and the Myriad Botanical Gardens. Each place had hands-on activities for children with educators there to facilitate the learning. Each time, my children were more engaged in learning and retained more information than watching a YouTube video.

These are the types of experiences families are looking for. Activities that are ideal for children, but still engaging for all family members. Family memories were made from learning, exploring, troubleshooting, and manipulating together. These opportunities offer parents a chance to learn all over again the information we

learned as children *through* experiences with our children. As informal educators we should be inspired by families to keep developing the best programs we can make. Sometimes it is best to return to the basics and let the families explore and create on their own. Other times a facilitated program helps families come together and learn. We all do our best to change and adapt, and through this continuous adjustment we are still attracting families to our centers. So get out and enjoy the final days of the summer. Get out and learn as a family! And have fun!

- Adriana Campos Reza
ISEA President

WHY ISEA?

Words from 2016 Annual ISEA Conference



ISEA volunteers are planning the 2017 ISEA conference, so keep your eyes on the website for more information about presentation proposals and registration. Each year the

organization works very hard to provide members with activities that inspire, inform, and raise awareness about current events in informal education. Texas is a large state with many challenges for formal education. Informal Science Education Association of Texas is a valuable resource that provides *all* Texas educators with contemporary information related to research, classroom practices, and strategies for providing quality informal education programming. Here is a

testimony from one of the scholarship recipients from the 2016 ISEA Conference:

I attended my first ISEA conference in Houston this past February, but I heard stories (of almost legendary status) from friends and colleagues who attended in the past and had positive experiences. At this year's ISEA conference, I was fortunate enough to present on a topic I'm incredibly passionate about with Emily Weerts, my fellow co-director of our educational

nonprofit, Nucleus Learning Network. Emily Weerts and I presented on Community First Program Design, a method of designing programming that was initially developed at the Santa Cruz Museum of Art and History. Community First Program Design involves working with and learning from communities in order to design meaningful programs that resonate with community groups. My session was a real highlight of the conference, and I really enjoyed engaging with so many different people during the session. The ideas of Community First Program Design, notably making community engagement

a core part of program development, are also key to ISEA itself. To me, ISEA is a place where conversations, collaborations, and community building can happen amongst a variety of institutions and professionals who are serving a variety of communities across Texas. While I have past experience in museums and current experience in nonprofits, I am also a librarian, and I am particularly interested in ways that informal science educators and institutions can collaborate with librarians to serve local communities. I am excited to see ISEA continue to grow and be a place for diverse communities

and educators to interact and find ways to work together.

- Sarah Morris, Co-Director, Nucleus Learning Network



BOARD RECOMMENDATION

The summer and books!

The summer is a time we often associate with vacation, catching up, time with friends, being outdoors, and reading. The summer is drawing to an end and with it a pulse to get that last chapter or last book read. I am a member of a summer book challenge and I have only been able to get through a few books. With that said, I am glad I was part of the online challenge with likeminded people. I found myself able to finish a book I started ages ago. Also, I completed a book recently bought at the Texas Book Festival, and I muscled through another book that has forced me to face my fear of writing. Reading is an amazing opportunity to see and be other places *in our minds*. The activity brings you closer to the world. As the summer wanes to an end here are additional recommendations from the

ISEA Board. *Maybe* you get to them this summer; there is always another summer to get caught up!

Anjoli Fry, Education Coordinator with Lady Bird Johnson Wildflower Center recommends *Omnivore's Dilemma* by Michael Pollen. She exclaims it is "SO GOOD!" Also, she has heard great things about *Nature Principle* by Richard Louv. Finally, she has used *Compost Stew* by Mary McKenna Siddals in her preschool programs. She commented "[s]uch a cute book about the ABC's of a good compost recipe."

Daniel Burch, Program Manager with Wiess Energy Hall recommends *Dry Store Room #1* by Richard Fortey.

Kristen Evans, Dean of Curriculum and Instruction at the Texas State Aquarium inquired if this

recommendation was for a specific purpose. And with that she recommended *Learning in Informal Environments: People, Places and Pursuits*. Bell, Lewenstein, Shouse, and Feder (editors). Check it out through the National Research Council.

Melissa Mullins, Environmental Educator with Center for Reservoir and Aquatic Systems Research, Baylor University "love[s] *The Ameoba in the Room* by Nicholas Money. She shares "[i]t is written in a very entertaining and engaging manner. Anyone would get drawn into the discussions in the book – it explores the breadth of the microbial world and points out that most people (including biologists) ignore the fact that most of life isn't multi-cellular or plant or animal. New molecular techniques in biology are allowing us

to understand biodiversity in a whole new way.” She goes on to say “[t]he book also talks about the human microbiome.” She quotes from the book “we are mobile ecosystems, carrying a galaxy of microbes...we embrace the irrational if we imagine that we exist anything more, or anything less, than complicated mixtures of cultivated microorganisms.”

Erin Shields, Education Manager with Texas Discovery Gardens at Fair Park recommends *The Gardener*

by Sarah Stewart. She says “I can’t read [this book] without tearing up! It’s a beautiful picture book with a ‘Grow Where You’re Planted’ message and a historical tie-in to the Great Depression. It’s also written in the form of letters, which holds the interest of all.”

Finally, I recommend from my summer reading *Writing WILD: Forming a Creative Partnership with Nature* by Tina Welling. I never skip an opportunity to be outside, but I find it difficult to capture my

wonderful experiences with text or drawings. I found inspiration and great ideas for generating writing prompts from stop and jot strategies to self-explorative exercises.

Enjoy the last days of summer and take time to get that last bit of reading in.

- Lucinda N Sohn, PhD, Adjunct Faculty, Texas A&M University-Corpus Christi

SUMMER PROFESSIONAL DEVELOPMENT Recharge and Refresh!

The summer time is an opportunity for educators to take a break from the classroom and take advantage of opportunities to learn and share with their peers. Summer programs take on many shapes and sizes from long weekends to 12 day institutes.

Classroom teachers are able to take time to enjoy learning and working with their fellow educators. Katherine Crysap, a science teacher with Seashore Middle Academy in Corpus Christi, TX and Tammy Ladner at Taft High School in Taft, TX shared their experiences from this summer from some of the summer programs they attended.

Katie and Tammy attend professional development workshops throughout the year. They prefer to attend content area (science) specific workshops as they hold my interest more easily plus they provide material to incorporate into

classroom curriculum. They select workshops to increase content knowledge and deepen understanding of the subject so that they are better equipped to answer student questions related to the subject.

This teacher team attends summer workshops sponsored by local



organizations such as the Texas State Aquarium, Mission-Aransas National Estuarine Research Reserve, or Texas Mining and Reclamation Association primarily to renew spirit for teaching, get outside and have some fun while learning something new. Also many

of these organizations offer the workshop at no cost to the teacher, include food and sometimes a stipend for completing the workshop. If the agenda looks interesting, has hands-on experiences that can use in our classrooms, then we apply.

Katie and Tammy both agree if all they have to pay for is gas to get there, they are in! But if the cost of travel is not included, then they consider the value of the learning experience and if they can afford it by sharing costs, then they agree to go. Both ladies love learning new things not just personally as life-long learners, but also to help be better teachers for their students.

These organizations provide more than just professional development opportunities for educators, they provide partnerships between education and industry, and connections for our students that may lead them to innovations and careers

to improve the quality of our lives and future.

Both teachers have worked together for several years. Tammy met Katie when she was a preservice



teacher. Katherine Crysop is a mentor teacher and doctoral student at Texas A&M University-Corpus Christi. She dedicates time and energy to numerous education activities to support her educational growth and that of her students. They are members of the Texas Regional Science Collaborative partnered with the Texas State Aquarium. Through this partnership, teachers attend professional development throughout the year.

Submit to Informally Speaking

We are calling for articles about everything related to informal science education such as partnerships (acknowledgements or even invitation for a partner for projects/programs), professional development opportunities, STEM initiatives, highlights on your programs, pictures, and even questions or requests for advice from our ISEA community. Please also attach high resolution photos with your submission. Please submit and attach your article to:

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