

STEM EDUCATION

VOL. 2, ISSUE 3

Our Centers

Central GYSTC Mercer University

Chattahoochee-Flint GYSTC Georgia Southwestern State University

Etowah GYSTC Georgia Highlands College

Gordon GYSTC Gordon State College

Magnolia Midlands GYSTC East Georgia State College

Oconee River GYSTC Northeast Georgia RESA

Southwest GYSTC ABAC at Bainbridge

West GYSTC University of West Georgia

GYSTC @ Augusta Georgia Cancer Center – Augusta University

GYSTC @ Gainesville Lanier Technical College

GYSTC@ South Georgia ABAC at Tifton

GYSTC State Office Kennesaw State University



Note from the Director's Desk



7t's Spooky Season, Georgia Educators

It is easy to find ways to engage students in explorations this time of year when science becomes spook-tacular! From thinking about the structure and function of skeletons to studying the chemical change that happens when you snap a glow stick, science is everywhere. It's the perfect time to practice those sorting skills with bags of candy. There is nothing like observing a jack-o-lantern decompose outside post-festivities. Want to study food chains? Dissect an owl pellet! Owl pellets are the undigested parts of a bird's food, such as hair and bones, which are regurgitated. Not spooky, just boo-tiful science! We want to thank all our schools, that have invited us to host Spooky Science and STEM Nights and Days. It has been a real treat! As always, you can visit our website at <u>www.gystc.org</u> for access to all the activities in this issue and many more. Stay curious!

Foin us on Tuesday, November 29 for Giving Tuesday

GYSTC is very excited to participate again this year in GivingTuesday on Tuesday, November 29, the global day of unity and giving. GYSTC is a private, not-for-profit educational organization designed to increase interest in and enthusiasm for science, technology, engineering and mathematics (STEM) as subjects for serious study for K-8 grade levels teachers and students. To learn how you can support GYSTC with its mission click <u>here.</u>



GYSTC Gems



Our GYSTC Gem for October is our Executive Director, Amanda Buice. She was recognized by the Environmental Education Alliance of Georgia with the 2022 Outstanding Service to Environmental Education by an Individual Award.

Ms. Buice said, "Thank you for providing rich soil in which I could grow and serve these last 20+ years. You've nurtured my professional life, and I look forward to more adventures ahead. Happy 30th anniversary!"

To learn more about this great professional organization visit: *www.eealliance.org.*

GYSTC at Work



Ms. Erin Youmans, leading a professional development at Lakeview Primary School in Milledgeville.



Our newest regional coordinator, Ms. Tiffany West at Ben Hill Elementary.



Teachers from Richmond County during their professional learning workshop from GYSTC.

GYSTC Spotlight

This month, we are shining a light on one of our **State GYSTC Board Members, Mr. Keith Crandell.** Mr. Crandall is the Georgia Department of Education Science Program Manager and governs public education in Georgia, supporting school districts to serve the whole child. Keith is affiliated with Georgia Science Supervisors Association, Georgia Science Teachers Association, and the Council of State Science Supervisors. He is a Georgia Certified Educator in multiple areas. Keith's interest is to support GYSTC with science education around the state and to establish opportunities for collaboration with the Georgia Department of Education.

Mr. Crandall studied chemistry at the University of Georgia, and there, gained a passion for science education. As a classroom teacher, Mr. Crandall's goal was for students to recognize and appreciate the chemistry that is all around them. His work was recognized by the American Chemical Society by receiving the Chemistry Teacher of the Year for the Northeast Georgia Chapter. With exciting projects, labs, and challenging problems, Mr. Crandall's classroom was a place where chemistry came alive!

We are excited to share the *Candy Corn Chemistry* lesson with your students so that they can explore working in the science field just like Mr. Crandell! Please visit *gystc.org/gystc-spotlight/* to find this lesson and more.



October Simple Science Activity





The Simple Science Activity for October showcases how Earth's surface is formed. The activity is entitled **Candy Core Sampling.**

In this activity, your task is to take core samples of candy bars to model how geologists take core samples of the Earth. Geologists take core samples of soil and rocks on Earth and examine the core samples to learn things about Earth's history. The core samples can tell them about the climate or the types of animals that were alive at a certain time. They can even figure out when volcanoes erupted in the past by looking for layers of volcanic ash. Core samples can also be used to learn about other planets and bodies in our solar system. NASA missions have gathered core samples from the Moon and Mars for future analysis. Like the Earth, candy bars have multiple layers of different ingredients. When you take a core sample using a clear straw, you can see the layers.

Visit *gystc.org/free-simple-science-activities/* for access to this activity and many more. While there you can also find a short demonstration video that you can watch.

State Office Offerings

Professional Learning Workshops

Upcoming Virtual STEM Essentials Workshop:

In this two-part after-school workshop, participants will create, design, collaborate, and problem-solve as they engage in relevant hands-on explorations. (*Cost per teacher is \$99*)

- November 10 & November 17, 2022 Virtual Session 3:00 p.m. 5:00 p.m.
- January 19 & January 26, 2023 Virtual Session 3:00 p.m. 5:00 p.m.
- March 16 & March 30, 2023 Virtual Session 3:00 p.m. 5:00 p.m.

Upcoming Virtual Excellence in Science Teaching Workshop:

In this three-part after-school workshop, participants will hone their abilities to plan excellent science instruction. (*Cost per teacher is \$149*)

- December 1, December 8, & December 15, 2022 Virtual Session 3:00 p.m. 5:00 p.m.
- February 9, February 16, & February 23, 2023 Virtual Session 3:00 p.m. 5:00 p.m.
- April 13, April 20, & April 27, 2023 Virtual Session 3:00 p.m. 5:00 p.m.

Looking for specific topics? Please contact GYSTC at <u>gystc@kennesaw.edu</u> to put together a workshop that meets your needs. Pricing for on-site professional learning may vary.



In-Class Field Trip/ Embedded Professional Learning

On-site In-Class Field Trip/Embedded Professional Learning sessions are \$10 per student (travel fees may apply). Virtual In-Class Field Trip/Embedded Professional Learning sessions are \$5 per student. This includes the activity and materials.

> Visit: gystc.org/in-class-field-trips/ to view our offering catalog

STEM Day / Family STEM Night

These are community – school-based activity that allows students, parents, teachers, and caregivers an opportunity to participate together in the excitement of STEM activities. STEM Days/Family STEM Nights are \$1,500 per event. This includes activities and professional development for the teachers.

> Visit: *gystc.org/stem-day/* to view our offering catalog