Louisiana Science Teachers Association Newsletter (www.lsta.info)

LSTA NEWSLETTER

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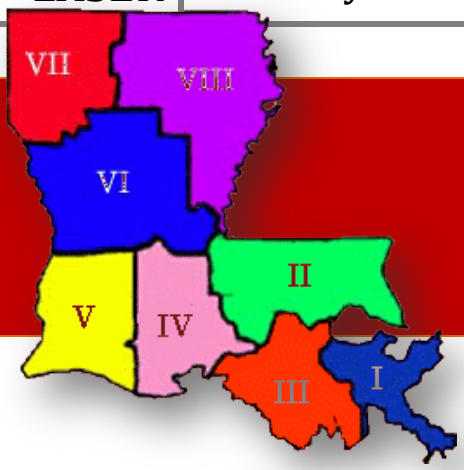

L O U I S I A N A S C I E N C E T E A C H E R S A S S O C I A T I O N

Louisiana science educators dedicated to the advancement of scientific literacy at all levels, and encouraging lifelong learning.

February 2023 | Louisiana Science Teachers Association

LSTA Board and Regional Representatives

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Kellie Boquet Region 4 Representative khboquet@lpssonline.com	**Cammie Benoit** Region 5 Representative cammiembenoit@gmail.com	**Dr. Ladale Bernard** Region 6 Representative ladale.bernard@rpsb.us
Rosie Cash-Loftis Region 7 Representative rbcash@caddoschools.org	**Marci Bryant** Region 8 Representative marcibryant@opsb.net	**Stephen Knight** LASER Editor stephen_knight@saintmartinschools.org
Nicole Cotten LSTA Web Master nmcotten12@gmail.com		**Rob Wallace** Social Media Coordinator iamrobwallace@gmail.com

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President's Message from Pierre LaCaze

Members of Louisiana Science Teachers Association,

I would like to thank everyone who showed up to our Drive-In Conferences. Through this mini conference we hosted individuals across three sites, New Orleans, Ruston, and Lake Charles. Participants were able to participate in sessions by LSTA, LATM, LDOE, and LaSTEM. These sessions helped teachers gain valuable knowledge and get re-energized for the spring semester. I would like to thank our social Media Chair (Rob Wallace) and our Membership Chair (Chris Campbell) for creating a mini conference that everyone enjoyed. Thank you to those who came out, I hope you were able to take away something that will help you in the classroom.

Please expect an email soon regarding this year's conference. Big changes are on the way to ensure that we offer the best conference possible for our members.

Thank you for all you do for science education in our state. You truly do make a difference in those you teach.

Sincerely,

Pierre LaCaze
President, LSTA

Complimentary LSTA Membership

LSTA understands how difficult these times are for science educators. We want you to know we are with you by doing our part to provide information about a variety of resources and opportunities to alleviate some of the strain you may be feeling. Please click the link below to fill out an online form to register for your complimentary membership to LSTA. Please share this offer with colleagues. LSTA Complimentary Membership Form

The SAME Lifetime Achievement and Service Award

During the recent joint meeting of GOMA and SAME held at Fontainebleau State Park Jean May-Brett was honored as the recipient of "The SAME Lifetime Achievement and Service Award". A member for 30 years, Jean served SAME as President, the Awards & Scholarship Committee Chair and as a member of the national conference planning committee. In addition she was the Secretary and President of the National Association of Marine Educators.

LSTA Needs You!

Do you want to become more involved in science education in Louisiana? Do you enjoy sharing your expertise with others? Are you ready to take a step into a leadership role? The Louisiana Science Teachers Association (LSTA) needs you! Nominations are now open for the next two-year term of office, November 2023-December 2025, for the following positions:

- President
- Vice-President
- Secretary
- Region 1 Representative
- Region 2 Representative
- Region 3 Representative
- Region 4 Representative
- Region 5 Representative
- Region 6 Representative
- Region 7 Representative
- Region 8 Representative

The LSTA Board typically meets four times each year either face-to-face or virtually. Duties of officers and regional representatives include attending board meetings, participating in various board projects including regional workshops, nominating and supporting colleagues for awards, and working at the annual conference. Regional representatives have the opportunity to serve their regions by informing members about opportunities in science education, sharing local science news for publication in each issue of the LASER, and facilitating regional workshops. Persons applying for the office of LSTA President are required to have previous Board experience.

Nomination packets should include the following:

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• letter with a statement from the nominee accepting the nomination, the reason the nominee is interested in serving as an LSTA officer, what experience and knowledge the nominee would bring to the office, and how the nominee envisions the role of LSTA in science education.
• resume which includes but is not limited to teaching experience and current position; and
• maximum of three letters of support (not to exceed one page each).

President, Vice President, Secretary positions only:

• brief bio (100 words or less) explaining how they can benefit science educators as a leader of LSTA
• photograph is preferred LASER April 2021 Louisiana Science Teachers Association Newsletter

Cover page Nomination packets should be sent to:
Shauna LeBlanc
106 Appomatox Pkwy.
Carencro, LA 70520
Electronic copies should be sent to: tkbleblanc@gmail.com.

All nomination packets must be postmarked on or before Sunday, August 27, 2023. All electronic packets must be received by midnight Sunday, August 27, 2023. Nominees will receive acknowledgment of receipt of their nomination. The nominating committee, chaired by LSTA Past President, Shauna LeBlanc, will select two nominees per office for the final ballot. Ballots will be distributed to active LSTA members in October via electronic message. Election results will be announced at the 2023 Fall LSTA/LATM Conference: LSTA Awards Event and officers will immediately assume their positions.

Regional News

✦ Region I ✦

The Greater New Orleans STEM Initiative (GNO STEM) partnered with the National Energy Education Development (NEED) to hold an Exploring Energy Education workshop on February 4. Participating teachers had fun learning about energy with hands-on energy activities. The Joe W. and Dorothy Dorsett Brown Foundation provided funding for this workshop.

Teachers at GNO STEM's NEED Energy Workshop

GNO STEM's Executive Director, Jennifer LaCoste, was invited to attend and speak at the Lt. Governors' Association Meeting in December. The Association of Lt. Governors has a focus on STEM education and donated approximately 100 STEM gifts to GNO STEM to be distributed to local children.

Jennifer LaCoste at the Lt. Governors' Association Meeting

Jennifer LaCoste with Lt. Governor Billy Nungesser

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Professional Development Opportunities and Resources

GNO STEM has an upcoming teacher PD session that is open for registration - GNO STEM & GIS PROFESSIONAL DEVELOPMENT FOR 3RD - 12TH GRADE EDUCATORS, June 6-7, 2023 from 8 AM - 4 PM at UNO. Geographic Information Systems (GIS) is a cloud-based geospatial platform enabling individuals to create and share maps, apps, and map services with 200 inquiry-based lesson plans in 3-12 math, science, social science, English, coding, and computer science. Stipends for participating teachers!! Check out http://gnostem.org/ to register and for more STEM opportunities and teacher PD!

Animation Technology Challenge for Middle School Students

GNO STEM is happy to announce a competition for grades 5-8 featuring student teams presenting an original animated video. The competition will be held on March 29,2023 at WYES Studios. For more information and to register: http://gnostem.org/. The number of teams for the competition will be limited, so register soon!

DUFRENE ELECTED TO NSTA COUNCIL

Tyler Dufrene, an AP Physics and Chemistry teacher at Hahnville High School, was recently elected to serve as the District VII Director on the National Science Teaching Association's Board of Directors and Council. Tyler is a passionate and distinguished science educator, having been named a 2021 state finalist for the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) with national results pending, 2022 Claes Nobel Educator of the Year, 2021 Outstanding Science Teacher of the Year (LSTA), 2021 Bob Thompson Excellence in Energy Award winner, 2019 Louisiana Secondary Teacher of the Year, and recipient of the 2018 Essie Beck "Rising Star" Science Education Award (LSTA). He even served as a school board member for the Lafourche Parish School District from 2019-2022. Tyler was also awarded the prestigious Albert Einstein Distinguished Educator Fellowship. He is currently serving out his fellowship in Washington, D.C., with the U.S. House of Representatives' Committee on Education and the Workforce.

Once sworn in as the District VII Director, Tyler promises to "always put the needs of educators and students first and seek out quality professional development sessions that address the grand challenges in science education." He further explained that he recognizes "it takes a village for our education system to be successful. As such, I will work diligently to forge a productive partnership with each of you that cultivates authentic learning experiences, nurturing learning environments, and a robust support system for all stakeholders." When it comes to his passion for teaching, he explains, "My reward is not a salary or title. It is those lightbulb moments students have when the grasp a new concept for the first time, as well as seeing educators fall in love with the profession over and over again each day." Further, he states he will work extremely hard to strengthen the partnerships between the national and state associations. Tyler was elected by the general membership of NSTA and will begin his term on June 1, 2023. District VII encompasses all of Arkansas, Louisiana, and Mississippi. The NSTA Board of Directors and Council work together to promote excellence and innovation in science teaching and learning for all.

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Save the Date and Sign-up Information

Join the New Orleans Saints and Pelicans for STEM Fest!

Saturday, March 4, 2023 • 10am-2pm
Ochsner Sports Performance Center
Sponsored by Chevron

Please save the date to participate in the Saints and Pelicans STEM event!
We are returning to a full capacity hands-on STEM learning event, featuring live performances and interactive demonstrations with an estimated 3,500 students in attendance.

These community events would not be possible without the support of volunteers and organizations, giving of their time and talent. We are looking to fill the Saints training facility (both inside and outside) with industry, education and community partners and businesses in the promotion of STEM education and awareness.

This event is a great opportunity to:

- Connect with students by means of a creative hands-on learning activity, inspiring our future leaders in STEM pathways
- Network with other local organizations and businesses with shared synergies
- Share your organization or business with the community

We are looking for both table exhibitors (businesses and organizations presenting a hands-on STEM activity) as well as general volunteers to assist in various capacities (helping with food, drinks, set-up, assisting exhibitors, etc.

Please fill out the Google form listed below, if you are available to participate. It is important this form is filled out as soon as possible, so we may plan for your organization's needs the day of the event.

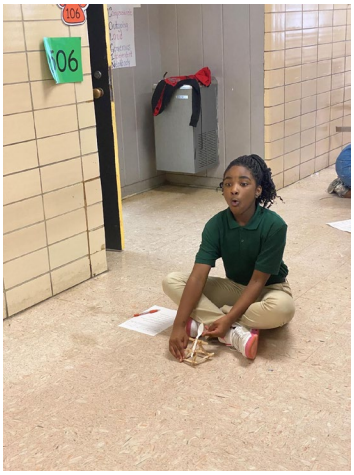
https://forms.gle/Ho7texcDVvDa5B1g8

For more information contact: Jennifer.LaCoste@gnostem.org

Please submit news for Region 1 to **Cecilia Gillam** at cgillam@stcharles.k12.la.us.

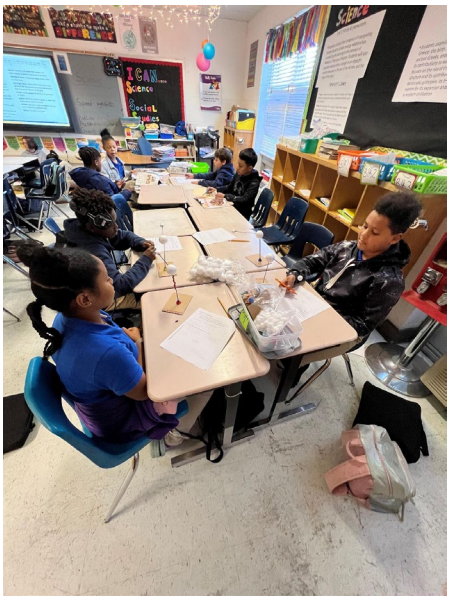
✦ Region II ✦

6th grade science students at Florida Ave Elementary in St. Tammany Parish recently learned about Newton's Laws of motion by launching marshmallows, building spools and balloon rocket racers.



They also created a scale model of the solar system out on their playground.

Students at Carolyn Park Middle created gravity models to learn about forces between objects.



The Southern Association of Marine Educators (SAME) recently held a joint two-day meeting with the GOMA Education Team at Fontainebleau State Park. Alma Robichaux, a former LSTA Distinguished Informal Science Educator Awardee and the President-Elect of SAME chaired the meeting for representatives of the five gulf coast states. The meeting began with an evening campfire including s'mores Danielle Manning was the guest speaker from the NOAA Slidell Weather Forecasting Station and is with the NOAA Hurricane Center Engagement Team. Jennifer Cook with LA Sea Grant is the SAME Treasurer. Other participants from LA included Amy Clark, Chantal Correll, Dani Dilullo, Fran Harvey, Jean May-Brett, Kristin Ransom and Lindsey Seely. Each attendee was able to report on programs and opportunities of interest to both formal and informal educators. Lodging and meals were provided by SAME.

Please submit news for Region 2 to **Tricia Trinco** at tricia.trinco@stpsb.org.

✦ Region III ✦

Students at Houma Christian School in Mrs. Delgado's 7th grade class dissected frogs as part of their Body Systems unit.

Pre K added to their Pet Study by visiting Ms. Tuttle's new chicks at Village East School in Houma. She shared the Life Cycle and how to care for them. They fell in love!

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Nicholls State University professor Dr. Chad Young visited Vanderbilt Catholic High School for some chemistry fun!

Lin Andrews and Blake Touchet from the NCSE Supporting Teachers Program Team presented at a two day workshop for Louisiana science teachers at University of Louisiana at Lafayett . One of the activities demonstrated was an Ice Core Investigation. In this activity, white pomp oms represent the ice particles, and the colored pomp oms are a proxy for the hydrogen isotope ratios of deuterium and protium, which allows us to determine the relative temperature when the ice was formed.

Please submit news for Region 3 to **Wendy Delgado** at wendy_delgado@houmachristianschool.com.

✦ Region IV ✦

Click her to view the latest news from the Region 4 STEM STEM Center.

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Cathi Cox-Boniol and Missy Wooley spent a week working with middle grades teachers in Iberia Parish as they continued a deep dive into the OpenSciEd curriculum. Each grade level met to experience an anchoring phenomena routine, fully unpack related standards, construct the storyline and create an assessment plan for a specific unit.

Please submit news for Region 4 to **Kellie Boquet** at khboquet@lpssonline.com.

✦ Region V ✦

The 2023 Louisiana VEX Robotics State Championship will be held at the Burton Coliseum Complex in Lake Charles on February 25th from 9am – 6pm.

Calcasieu Parish students competed in in a Minecraft challenge to design and build something that that could be added to along I-10 to add to the Lakefront Development. Winners of the challenged received 3D printed trophies. In the team division, the middle and high school results were as follows: 1st place – Leblanc Middle School, 2nd place – Maplewood Middle School, and 3rd place – Moss Bluff Middle School. For the elementary division, 1st place went to E.K. Key Elementary with 2nd place being won by Moss Bluff Elementary. In the individual competition, 1st place overall was won by a Leblanc Middle School student, while Moss Bluff Elementary dominated 1st, 2nd, and 3rd places.

Please submit news for Region 5 to **Cammie Benoit** at cammie_benoit@camsch.org.

✦Region VI ✦

As science teachers, we jump on board with the thought of our students getting the opportunity to engage in lessons that will help them with solving universal issues, but the real fun comes when students realize that they can apply these same concepts to their everyday lives. Science in itself is a mystery ready to be uncovered, and this is a concept I love sharing with my students.

Everything in life can somehow be related back to science, and seeing the light bulb switch on my students' heads while they perform investigations in class is the highlight of my day. Witnessing how excited they become when they realize that the majority of the decisions they make or the activities they engage on a day to day basis relate back to concepts they have learned in class, ensures me that they are actually learning and growing as evidence of them making those connections.

I also love teaching science because it allows students to take ownership of their own learning through student-led hands-on activities and peer collaboration. In these moments, I feel more like a spectator than a teacher. I am able to cheer my students on as they make new discoveries on their own, and also encourage those who struggle to persevere throughout the lesson.

Jamie Henry
8th Grade Science
Alexandria Middle Magnet School

Please submit news for Region 6 to **Dr. Ladale Bernard** at ladale.bernard@rpsb.us.

✦Region VII ✦

LSU HEALTH SHREVEPORT
SCHOOL OF MEDICINE SCIENCE MATTERS CLUB
PRESENTS

IDEAS DAY

I.D.E.A.S. (Interactive Day of Education and Awareness of Science) is a FREE come and go event put on for our Shreveport community. This is a day of fun-filled experiments with 50+ science demonstrations and booths meant to expose school-aged children in the community to the excitement and wonder of science!

2.25.23 | 9 am - 3:30 pm

LSU Shreveport University Center
One University Pl Shreveport, LA 71115
For more information, please contact Holly Lacour at sciencematterslsuhs@gmail.com

Please Register here!

Please welcome the LaSTEM Initiative, directed by the LaSTEM Advisory Council and administered by the Louisiana Board of Regents. Watch for many resources available to you!

REGIONAL STEM NETWORK CENTER FOCUS AREAS

LaSTEM Advisory Council

Regional Network boundaries honor extant partnerships and infrastructures while complementing them with a statewide coordinated fabric of zones. The Regions are best envisioned as fluid and virtual rather than rigid and bounded – there will be much cross-over among sectors, including community colleges, economic zones, universities and private colleges, etc.

Below is a map of the nine STEM regions, similar to the RLMA regions previously mentioned.

Dr. Heather Kleiner is the Region 7 STEM Center Director. Please contact Dr. Kleiner if you are interested in serving on the Advisory Board at hkleiner@sciport.org. For more information, please visit www.laregents.edu/lastem/

The **Junior Science and Humanities Symposium (JSHS**) is a Department of Defense-sponsored STEM program that encourages high school students to conduct original research in the fields of science, technology, engineering, and mathematics (STEM) and publicly recognizes students for outstanding achievement. The Louisiana JSHS is Sponsored and Administered by: Louisiana State University Health Shreveport, Kris Clements, Regional Director.
The Louisiana Junior Science & Humanities Symposium was held from January 14-15 2023.
1st place, $2000 scholarship, **Sophie Chen**, Caddo Parish Magnet High School
2nd place, $1500 scholarship, **Andrew Minagar**, Caddo Parish Magnet High School
3rd place, $1000 scholarship, **Raj Letchuman**, Caddo Parish Magnet High School
4th place, **Keanna Luo**, Baton Rouge Magnet High School
5th place, **Ella Barker**, St. Joseph's Academy

All five students will attend the National JSHS to be held in April in Virginia Beach, VA. Sophie and Andrew will present orally and vie for further scholarship, and Raj, Keanna, and Ella will present posters.
Congratulations to these outstanding winners and good luck at the National competition.

STEM ZONE

BARKSDALE AIR FORCE BASE AIRSHOW

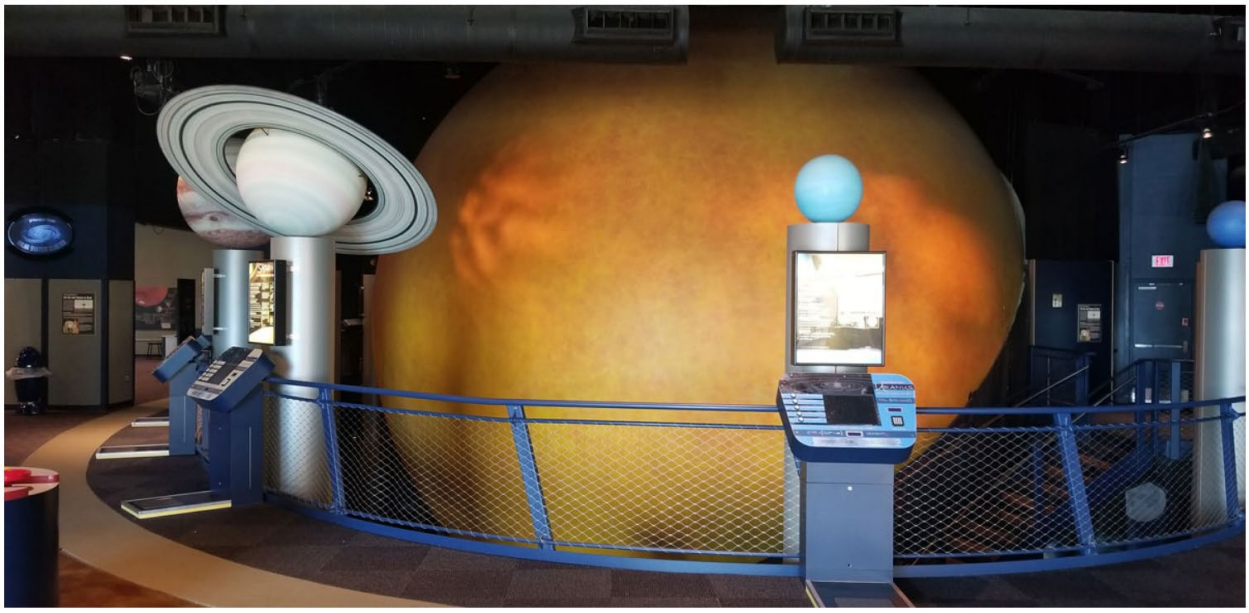
*The **STARBASE STEM Zone** is a place where kids of all ages can come do hands-on activities or see live demos. Participants can ask questions of real-life STEM professionals and engage in activities that build the kind of skills that lead to STEM careers.*

DATES & TIMES:

MARCH 25 & 26 FROM 8AM – 4PM

CONTACT INFO:

STARBASESTEMZONE@GMAIL.COM
OR CALL 318.529.3521



The **Dayna & Ronald L. Sawyer Planetarium** combines a 16 million pixel E&S Laser Projector system, the revolutionary software of Digistar 3, and a 12 m curved screen to bring the universe to your fingertips. Visitors can visit planets in and outside our solar system, fly through the stars, review constellations, learn about secrets of the universe, and much more. Audiences can participate in a Q&A at the end of each program. The main entrance to the Planetarium is on the Lower Level.

Movies

Narrated stories with intergalactic scenes
All movies are 30 minutes in length
Audience Q&A at the end of each program

Live Presentations

Live narration with scenes that can be changed on the fly
All presentations are 30 minutes in length
Audience Q&A at the end of each program
Contact the Planetarium
For more information or to schedule an event, please email reservations@sciport.org.

Northwood High School, Shreveport, Louisiana, Principal Sharon Wall
2023 Science Fair

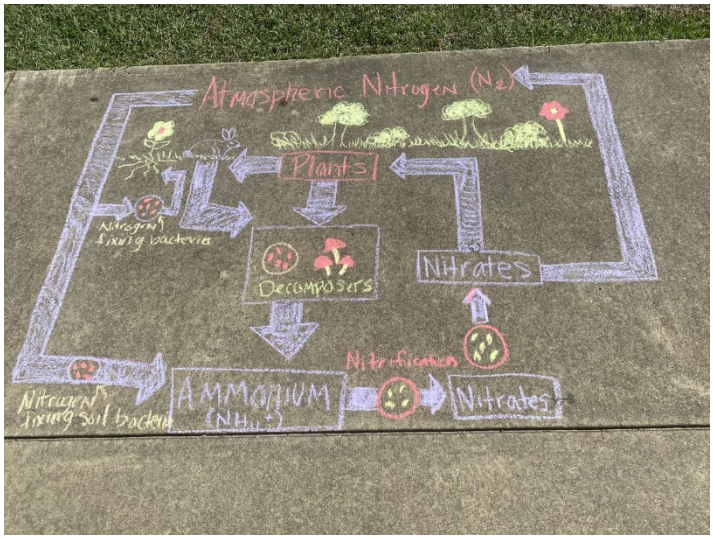
Congratulations to the winners: Our judges Maggie Dix (First Place), Cassie Donaghey (Second Place), Ava Pollard (Third Place) and Presli Prator (Third Place). These students will be attending the Regional Science Fair.
1st Place--Maggie Dix
2nd Place-Cassie Donaghey
3rd Place -Presli Prator& Ava Pollard

Please submit news for Region 7 to **Rosie Cash-Loftis** at rbcash@caddoschools.org

✦ Region VIII ✦

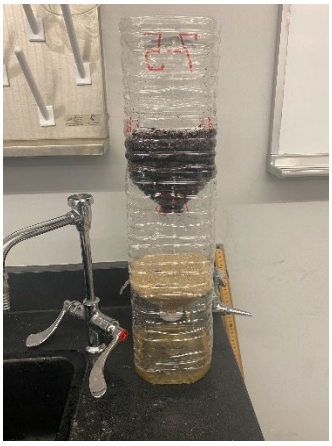
Marci Bryant of Region 8 will be joining several state education leaders, teachers, and scientists in a two day research and collaboration February 10-11.This is part of the **Gulf Coast Collaborative Project** at the **Dauphin Island Sea Lab.** Collaborators will be working with supervisors from Louisiana, Alabama, Mississippi, Washington, and Colorado and the team from Advancing Coherent and Equitable Systems of Science Education (ACESSE) to promote equity and coherence in Science education. This group is working to develop strategies and plans to incorporate local phenomena for classroom use to enhance Science education across Louisiana. After this weekend, collaborators will implement strategies in their local classrooms; then reconvene to discuss successes, trials, and future plans in hopes of improving not only formative assessment scores but real world knowledge of scientific principles.

Allison Lovelady, teacher of Anatomy & Physiology, Biology II, & AP Environmental Science at **West Monroe High School,** used the beautiful Northeast Louisiana weather to take her Anatomy and Physiology students outside to stretch their minds and legs by using sidewalk chalk to model the different nutrient cycles. The students then recorded their explanations for other students to review using Flipgrid.

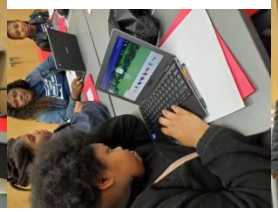


Mrs. Lovelady's AP nutrient cycle models

Mrs. Lovelady is using Inquiry-project based curriculum with her AP Environmental Science class. This is in line with the rest of her district, **Ouachita Parish**, to encourage independent thinking and discovery of Scientific Principles. Students designed a terrestrial and aquatic chamber to mimic a biome to observe plant growth, primary productivity, cycles of matter and food web interactions. This project took place over three months starting from scratch with soil and seeds. The aquatic chamber took two weeks to set up water used to water the terrestrial chamber was captured and filtered through an additional chamber to mimic pond water. After the two week time frame duck week, elodea and mosquito fish were added. There were a few ecocolumns that served as case studies, it was student driven decisions to add grass seed to observe the changes in phosphorus and nitrogen cycles. Two groups added two fish to observe limiting factors such as space and food-one group had a fish die (only one throughout the project!) They buried the fish in their terrestrial chamber to observe decomposition. There were several probes they used to collect data (dissolved oxygen in the aquatic chamber, temperature and pH of both chambers, soil fertility, nitrate/nitrate levels in the aquatic chamber, and measuring plant growth. There were five plants planted to observe limiting factors, only one or two of the plants successfully grew in each ecocolumn. The following pictures shows the progression on the students' ecocolumns.



Cathi Cox-Boniol and **Missy Wooley** (both SCILS Region 8 LaSTEM Center at Louisiana Tech University) welcomed middle grades girls from Ruston Junior High School, Morehouse Parish Schools, Lincoln Preparatory School, and Choudrant High School as it continued its CS4U (Computer Science for You) program in partnership with LA Tech's **Dr. Lisa Dick**, **Chris Campbell** and **Diane Madden**. The team was recognized by the global CSforAll organization for meeting its core goals of Raising Awareness, Underrepresented Minority Groups, and Rural Communities through the ongoing program that is slated to impact eight different cohorts of girls across Region 8 while reaching its goal of serving a minimum of 200 students this year. Cathi and Missy worked with local Girl Scouts as they earned their Space Exploration Badge and also hosted an "Engineer the World: Girls Design for Good" event at the Lincoln Parish Library where girls tackled the grand challenge of access to clean water for everyone. Both Cedar Creek School and Start Elementary School visited Louisiana Tech where Cathi, Missy, Lisa and Chris facilitated STEM Day activities and **Dr. Bill Deese** (Louisiana Tech University) provided a series of exciting demonstrations for the group. Bill and Cathi were once again awarded an EPSCoR grant and will work with Missy to host a "Middle Grades in the Mix" program on the Tech campus this spring. **Michee Moss** (Ruston Elementary School) and her students were featured as part of Louisiana's first Computer Science Education Week due to their pilot of code.org this year. Cathi and Missy were on hand for the ribbon cutting for the new Cyber.Org Range while Cathi attended the SCILS Scholarship Banquet at Bossier Parish Community College where she provided remarks and celebrated the students working on their certifications through SCILS funding. They both assisted Chris as he hosted the Louisiana Tech University Science Olympiad Invitational Tournament which welcomed teams from across the southern region. The SCILS Team hosted the Q1 LaSTEM Council Meeting at the Louisiana Arts and Science Museum where Cathi provided an overview of the SCILS statewide initiative "Girls in STEM" and **Dr. Jamie Newman** and **Nick Bustamante** (both Louisiana Tech University) hosted tours of the VISTA exhibit currently on display at the museum. **Dr. Lindsey Keith-Vincent** (Louisiana Tech University) sits on the council as the Governor's Appointee.



CS4U Program

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Girl Scout Space Exploration

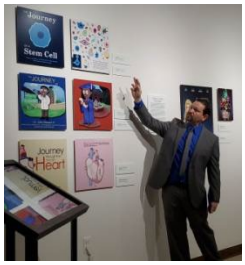
STEM Days

Cyber.org

Bossier Parish Community College

Louisiana Science Teachers Association Newsletter (www.lsta.info)

Engineer the World: Girls Design for Good



LaSTEM Council Meeting

Please submit news for Region 8 to **Marci Bryant** at marcibryant@opsb.net.

Professional Development Opportunities and Resources

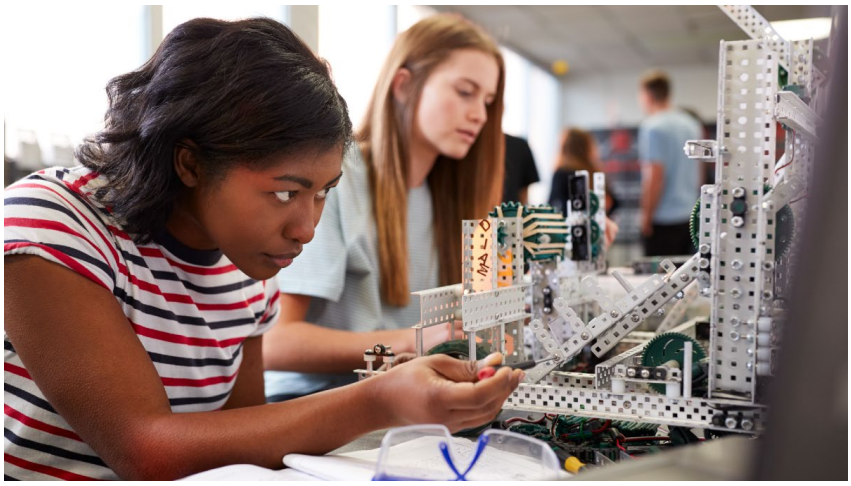
Louisiana Association of Science Leaders' Corner

NATIONAL ACADEMIES Sciences Engineering Medicine

Board on Science Education

SAVE THE DATE

Conversations about Science Standards Series



The Board on Science Education will be holding a series of conversations with leaders in science education about insights we have gained over the past decade of science standards development, adoption and implementation. The discussions will cover such questions as: (1) How have approaches to advancing equity and inclusion evolved and what are the implications for science education? (2) What have we learned from research on science learning and teaching? (3) What are the implications of what we have learned for our work in the coming

decade?

Please save the date and join us virtually as listeners and participants as we explore these issues:

February 21: Insights about Equity and Inclusion in Science Education
April 4: Insights from Research on Science Learning and Teaching
June 7: Looking Ahead to the Next Decade

This series will build on the events we held in 2021 and 2022 focused on the status of science standards implementation. Stay tuned for more information!

BWET Teacher Workshop

Changes in the Pontchartrain Basin

Climate change's impact on the wetlands can readily be seen through flooding, saltwater intrusion, loss of wetland habitats, and increases in water temperature. Teachers will have the opportunity to see and hear how these changes are occurring and distinguish the impacts that are being made in the Pontchartrain Basin (PB). Because the majority of the PB is being directly impacted by rising sea levels, natural events, and other impacts of climate change, this workshop will explore areas that have been impacted the most by climate change. This region is not only seeing changes physically, but they are experiencing changes in their livelihood. Homes that were once protected from rising waters are not flooding. Workers who depend on the wetlands and the ecosystem have difficulty providing for their families. Farmers in low-lying areas face drainage issues that were not prevalent in previous years. These changes place governmental agencies on high alert for the next potential disaster and create new ways to preserve their communities. This professional development aims to increase awareness about climate change implications for Louisiana and help teachers strategize effective activities that foster a stewardship ethos. We will explore the positive and negative influences humans exert on the environment.

Throughout this professional development, K-12 science and social studies teachers who work directly with English Learners (ELs) will be provided with strategies to help improve EL academic language in their subject, provide best teaching practices for ELs, and provide valuable hands-on learning to make the information relevant to students. Teachers will examine how cultural differences can impact a student's education and how to meet these needs. EL specialists will demonstrate to teachers how to use EL strategies and create lesson plans to meet the need of EL students. The specialists will bring their knowledge of language acquisition, effective EL strategies, and their classroom expertise in teaching EL students.

This is a two-year professional development opportunity. The first year will examine the changes and impacts in the northern portion of the basin, the second year will explore the southern portion. Preference will be given to teachers who can commit to both years of the project, but we know that scheduling is always a challenge, and the 2024 dates will not be set until the end of 2023.

Louisiana Science Teachers Association Newsletter (www.lsta.info)

Program Highlights:

- Learn skills and strategies for teaching ELLs
- Work alongside subject matter experts
- Explore the different habitats in the basin and examine the changes that have occurred
- Have facilitated, guided lesson plan development
- Receive continuing education credit
- All lodging, meals, and activities are included at no cost to the participant
- $300 in participant stipends (per year)

Application Deadline: Due to limited spaces, the priority deadline is March 3, 2023
To apply: https://lsu.qualtrics.com/jfe/form/SV_3OuXBGbZgQSlpcy
Program Contact: Jennifer Cook, jcook67@lsu.edu

Click here to enlarge

Calling All Teachers! Coming Up at The National WWII Museum

Click here to view the upcoming events at the National WWII Museum

Announcing Genes in Space 2023 – Design and Launch Your DNA Experiment to Space!

Calling all students in grades 7 through 12: Have you ever wondered how astronauts might survive a deep-space mission or how we might be able to use biology to transform new worlds? If so, Genes in Space is for you!

Genes in Space is a science contest that challenges students to design original experiments that use biotechnology to explore the real-life challenges and opportunities of space exploration. The contest is free and does not require equipment. The winning experiment is conducted by astronauts aboard the International Space Station! **Submission deadline is April 17th, 2023**. Learn more about the contest HERE.

Educators: The Genes in Space contest is a great way to engage students in authentic research. Check out the free tools for bringing modern genetic analysis and space biology into your classroom HERE. Resources include videos, lesson plans, classroom activities, worksheets, and more.

Find us on the web at www.genesinspace.org or email us at genesinspace@minipcr.com.

Genes in Space is a collaboration between miniPCR bio and Boeing with generous support from the ISS U.S. National Laboratory and New England Biolabs, Inc.

Appalachian Mountain Club (AMC)'s Dark Sky Classroom Program

We are excited to announce the release of the Appalachian Mountain Club(AMC)'s Dark Sky Classroom Program for students in grades five through eight. This is a free, easy-to-implement, three-day mini-unit designed to help students learn about light pollution and the benefit of dark skies. Our program was created by educators as part of AMC's See The Dark public awareness project and is aligned with NGSS standards.

You can download our educator guide here and the student notebook here. You can also visit www.SeeTheDark.org.

AMC is also announcing a companion digital photo essay contest in which students can submit their work and be entered to win prizes. One lucky teacher and their class will win a two-night stargazing experience at the Appalachian Mountain Club's Little Lyford Lodge in Maine's Moosehead Lake region. Contest details may be found here.

For more information, please visit www.seethedark.org or email info@seethedark.org.

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Careers for Engineers

New from EiE, Museum of Science, check out Careers for Engineers, an online experience for kids to explore STEM careers. Designed for students ages 7-12, Careers for Engineers offers a personality-style quiz that shows kids how their interests connect to a career in an engineering field. After taking the quiz, children are presented with fun, colorful infographics packed with key facts about their engineer career match. Each infographic also includes links to other EiE and Museum of Science resources. Parents, caregivers, and educators can skip the quiz and download all five infographics directly. All resources (webpage, quiz and infographics) are available in both English and Spanish. Try it for yourself and share with a friend! What kind of engineer are you?

Discover EIF

Discover EiE® Lessons Powered by Pear Deck™

As part of a new collaboration, EiE with Pear Deck has transformed 10 climate change lessons into engaging, interactive, slide-show style lessons that support educators in introducing the critical topic of climate change to students in grades 3-

8. Each presentation includes standards-aligned lesson plans, formative assessments, real-world examples and videos, enhanced with the interactive features of Pear Deck. Get Started for Free Today!

Climate Emergency: Feedback Loops Documentary Series

Climate Emergency: Feedback Loops Documentary Series

Teach climate change with the following free resources: Climate Emergency: Feedback Loops, a series of five short films narrated by Richard Gere, featuring twelve renown climate scientists, and endorsed by the Dalai Lama and Greta Thunberg. The resources also include an accompanying science standards-based curriculum for grades 6 -12 and discussion guides suitable for university level and community groups. The materials are freely available for use by teachers and students at www.feedbackloopsclimate.com. Ranging in length from 8 – 14 minutes, the films are ideal for classroom use. The broadcast version, Earth Emergency, aired on PBS and is now appearing on television globally. It was presented at the 2021 United Nations Climate Change Conference (COP26), showcased to the U.K. House of Commons, and featured in a series of webinars by the Smithsonian National Museum of Natural History.

Explorer Classroom Returns for 2023

Ignite an Explorer Mindset in your students with a **live interactive session** that connects young people with real National Geographic Explorers.

Our live interactive YouTube show will connect your students with scientists and storytellers to hear behind-the-scenes stories about their work and ask questions in real time. Upcoming topics include geography, biology, oceans, history, and more. All sessions are free and include an instructional guide to help your class get the most out of the experience.

We provide the following schedule for grades K-8:

- **Every Monday, 11 AM ET** – Ages 4-8 | Grade K-2 | 30 minutes
- **Every Thursday, 10 AM & 2 PM ET** – Ages 9-14 | Grade 3-8 | 45 minutes

Explore upcoming sessions and register today. We are excited to see you there!

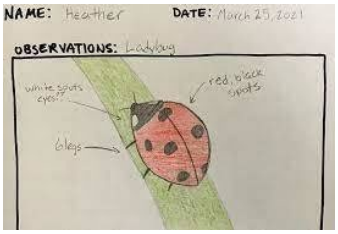
Opportunity: Help Identify High-Quality Instructional Materials with EdReports

EdReports is a non-profit organization with a mission to empower educators with independent, credible, evidence-rich information about instructional materials to ensure students have what they need to be college and career-ready. EdPeports launched a review of HS science materials and is gearing up for a second round of K-12 reviews in late April. EdReports is now accepting applications for reviewers for reviews of K-12 science instructional materials starting in April 2023. Apply now to engage in deep professional learning on the Next Generation Science Standards with a national network of skilled educators. Learn more about how to apply to become a reviewer here. Become a Reviewer

Cyber.org Technology Grant Program

Cyber.org's technology grant program is designed to support teachers and qualified extracurricular programs to provide cyber education to K-12 students across the United States. While grant applications can be submitted continuously throughout the year, the Spring application period's deadline is March 15, and awards will be given in April. Technology Grant Program | Cyber.org

Digital Field Book Activity from the Smithsonian



This activity from the Smithsonian's National Museum of Natural History helps K–8 students practice the skill of recording observations. The activity includes a digital field book template to use or copy, as well as additional information about the evolution of the use of field books in science and tips for maximizing students' observation skills in the field. For example,

teachers can jump start students' thinking with the activity's provided Guiding Questions to Encourage Observations and Discussion.

Children & Nature Network Vitamin N Challenge

The Vitamin N Challenge was inspired by Richard Louv's book on Vitamin N that includes 500 practical ideas to leading a nature-rich life. Join the challenge to help youth on summer break spend time outdoors.

NASA Citizen Science Projects: Calling learners of all ages to engage with NASA science!
Want to work on some real NASA science? NASA's citizen science projects are collaborations between scientists and interested members of the public. Through these collaborations, volunteers (known as citizen scientists) have helped make thousands of important scientific discoveries. There are more than 25 ongoing projects that need your help! NASA citizen science projects are open to everyone around the world, not limited to U.S. citizens or residents. Find a project! https://science.nasa.gov/citizenscience?fbclid=IwAR0nLySqaKaZHha78lbE6Z8PnOAaCxArQIKVNxnYykRUO5Hy9f2AIWwZ_7Y

EcoRise Opportunities, Events, and Resources

All Louisiana K-12 teachers have access to our leading-edge Sustainable Intelligence Program, which includes sustainability and design curriculum, as well as grant funds (**up to $700 per project**) for green student projects, and year-round training and support.

Green Guardians Environmental Literacy Curriculum

Green Guardians, a California-based educational technology company, has developed an environmental literacy curriculum for grades K–5. The curriculum consists of a series of multimedia lessons and games exploring topics such as pollution, climate change, sustainability, energy, watersheds, waste management, and environmental justice. The lessons use a story base to engage students in learning about their environment, and through inquiry and problem-solving, devise solutions to the problems they study

OurEcho Challenge

Teams of middle school students (grades 5-9) will develop projects to preserve biodiversity in their own backyards and compete for prizes of up to $5,000.
Entries must be received by 11:59 p.m. ET on March 3, 2023

Lessons on Climate Change, Evolution and Nature of Science

The National Center for Science Education is celebrating its 40th anniversary of providing classroom resources created and tested by teachers from around the United States. View this comprehensive teacher tested set of lessons on Climate Change, Evolution and Nature of Science.

NSTA Awards and Grants

The National Science Teachers Association has many awards with a variety of categories. Many include incentives to support educators attending the National Conference or the National Congress in the summer. For more information go to: http://www.nsta.org/about/awards.aspx

Kenner Planetarium

Kenner Planetarium MegaDome Cinema

Louis J. Roussel, Jr. Laser

Join Us For An Experience That's OUT OF THIS WORLD!

MARCH 2023

One World, One Sky: Big Bird's Adventure

Join Big Bird, Elmo, and their friend from China, Hu Hu Zhu as they locate the Big Dipper, the North Star, and the Moon in the night sky. Take an imaginary trip to the moon and discover how different it is from Earth. Audiences will see that even though friends may live in different countries, we all share the same sky!

Running time: 27 minutes

Magic Tree House: Space Mission

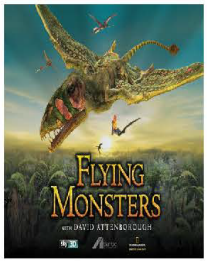
Based on the beloved book series, Magic Tree House Space Mission follows Jack and Annie on a fun-filled journey to discover the secrets of the Sun, Moon, planets, space travel and more! This show is a winner with Magic Tree House fans of all ages.

Running time: 30 minutes

Flying Monsters

Set out to uncover the truth about the dinosaur cousin, the pterosaur, with a wingspan of approximately 40 feet and equal to that of a modern-day jet plane.

Running time: 40 minutes



The Secrets of Gravity: In the Footsteps of Einstein

Why do things fall to the ground without magic? Meet Limbradur, a young magician's apprentice as he's joined by his small, quirky robot ALBYX3. The two embark on a magical journey of discovery through time and space to uncover the secrets of gravity and explore the theories of Albert Einstein!

Running time: 45 minutes

Symphony of the Stars

See the scores of timeless movie classics come to life in a dazzling display of laser light and animation! Songs include selections from The Lion King, The Wizard of Oz, The Lone Ranger, Phantom of the Opera, Beetlejuice, Mary Poppins and more!

Running time: 36 minutes

Admission:

E-mail hglorioso@kenner.la.us or call 504-468-7231 for information and group rates.

Adults	**$6.00 per show**
Children/Seniors	**$5.00 per show**

Multi-show packages available

*Children 2-12 years
*Seniors 60 and over

SHOW SCHEDULE SUBJECT TO CHANGE!

Schedule:

Appointment Only: ***Tues-Fri*** ***Schools/Camps/Groups***
Call 504-468-7231 for reservations.

General Public: ***Saturdays Only***
Box Office opens at 10:45 am

One World, One Sky:	**11:00 am**
Magic Treehouse:	**12:00 pm**
Flying Monsters:	**1:00 pm**
Secrets of Gravity:	**2:00 pm**
Symphony of the Stars:	**3:00 pm**

Kenner Planetarium 2020 Fourth Street Kenner, Louisiana 70062
www.kenner.la.us 504-468-7231

GNO STEM AND GIS

GNO STEM AND GIS

PROFESSIONAL DEVELOPMENT FOR GRADES 3-12 EDUCATORS

June 6 & 7, 2023 - 8:00am-4:00pm - UNO Campus

GEOGRAPHIC INFORMATION SYSTEMS (GIS) - A CLOUD-BASED GEOSPATIAL PLATFORM ENABLING INDIVIDUALS TO CREATE AND SHARE MAPS, APPS, AND MAP SERVICES

>200 INQUIRY-BASED LESSON PLANS IN 3-12 MATH, SCIENCE, SOCIAL SCIENCE, ENGLISH, CODING & COMPUTER SCIENCE

EDUCATORS WILL:

- Learn to tap into your students' spatial reasoning to strengthen their problem-solving skills
- Obtain Lesson Plans and Exercises that enrich your current curriculum
- Leave with new project-based, cross-curricular teaching tools that have wide applications

STUDENTS WILL:

- Become active learners and engaged in their own learning
- Develop spatial and geographic reasoning
- Learn to identify and analyze issues impacting their local communities

TWO-DAY WORKSHOP AND FOLLOW-UP CLASSROOM SUPPORT

Workshop is designed to train educators in cutting-edge technology for STEM project-based learning to engage their students inside and outside of the classroom.

Teacher stipends available

esri

Fran Harvey GISP
ESRI Trained T3G Instructor

GREATER NEW ORLEANS STEM

SPACE IS LIMITED
REGISTER AT WWW.GNOSTEM.ORG OR WITH QR CODE

For More Information:
Cathie.Smith@gnostem.org

SCAN ME

2023 NASA Planetary Science Summer School

Jet Propulsion Laboratory
California Institute of Technology

January-February 2023

About PSSS | Eligibility | Learning Goals | Application Q&A Webinar

Learn NASA Planetary Science Mission Design from the Experts!

Join our 35th annual early career immersive, experiential, 3-month mentored opportunity for:

- Science & engineering doctoral candidates recent Ph.D.s, postdocs, junior teaching faculty
- Engineering master's degree students near graduation
- Individuals living and working in the U.S.
- U.S. Citizens or legal permanent residents
- Foreign Nationals from non-designated countries (maximum of 2 admitted)
- Applicants from diverse backgrounds are particularly encouraged - we highly value diversity, equity, & inclusion.

Register now for informational session February 14 11:00 am ET

Apply by March 28

2023 Session dates:
#1 May 11 - August 4
#2 May 25 - August 18

NASA Science Mission Design Schools

In NASA Science Mission Design Schools, you will learn the development of a hypothesis-driven robotic space mission in a concurrent engineering environment. Get an in-depth, first-hand look at mission design, life cycle, costs, schedule & inherent trade-offs. To broaden your understanding, you are encouraged to take on science and engineering roles outside your normal area of expertise. With workload of a rigorous 3-credit graduate-level course, you will act as a science mission team during the first 10 weeks of preparatory webinars, then spend the culminating week mentored by JPL's Advance Project Design "Team X" to refine the mission concept design & present it to a mock NASA expert review board.

Other SMDS Opportunities

Heliophysics Mission Design School (expected in 2024)
Deadline early fall
Session runs January-April

Astrophysics Mission Design School (alternating years)
Deadline early fall
Session runs January-April

NASA Science Mission Design Schools are run by NASA's Jet Propulsion Laboratory, supported by JPL's Innovation Foundry and its legendary Team X. JPL is a federally-funded research and development center managed for NASA by Caltech.

Scan QR code or visit
go.nasa.gov/missiondesignschools

National Aeronautics and Space Administration
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, CA 91109

go.nasa.gov/missiondesignschools

Follow us on Research Gate link

https://www.researchgate.net/project/Planetary-Science-Summer-Seminar

Science Teacher Leader Advisor Applications

Coming soon: Science Teacher Leader Advisor Application Re-opening

The Louisiana Department of Education's science content team is seeking high school science teachers to join our 2022-2023 Teacher Leader Advisor cohort. Teachers of all high school science courses are needed to develop resources for use by Louisiana educators. Additional information and an updated application will appear on the Department's Teacher Leader Teacher Leader Newsletter. page by August 23rd and will close on September 16th. Sign up to receive the newsletter by completing this form.

Please contact STEM@la.gov with questions.

$2 million available to support placed-based education in the Gulf of Mexico region

The National Academies of Sciences, Engineering, and Medicine's Gulf Research Program (GRP) aims to increase the scientific and environmental literacy and problem-solving skills of children and youth in the Gulf of Mexico region. This funding opportunity will support the next generation of informed citizens, scientists, engineers, and decision-makers in understanding the socio-environmental challenges of their local communities and providing opportunities to increase their capacity to address them.

Specifically, the GRP is seeking proposals that engage children and youth in place-based educational activities that will foster the development of the scientific and environmental skills, competencies, and capabilities that are critical to solving complex issues in the Gulf now and into the future. The GRP will accept proposals from nonprofit, state, and local entities, excluding federal agencies, which support educational, service, and/or coordination activities for children and youth in the K-8 grade range. In order to best serve the children and youth of the region, the GRP aims to limit the overhead charges on educational grants. As such, overhead charges for this grant opportunity cannot exceed a total of 20%. This limit also applies to subawardee budgets.

A total of $2M is available for this funding opportunity, with the number of proposals being funded dependent on the quality and quantity of applications. Full details can be found on the Gulf Research Program website. Applicants must request at least $75,000 for projects, commensurate with the scope of work, that are up to 30 months in duration. Submit your applications by March 29, 2023 5:00pm ET.

Free opportunity for science teachers from the National WII Museum

This summer the National WWII Museum will host two weeks of seminars for teachers of science and STEM on-site at The National WWII Museum in New Orleans.

The first week (**July 2 to 8**) will be open to teachers of K–8th grade science. Participants will learn how to use the Little Engineers and Real World Science curriculum guides and best practices in science education. We will discuss activities in Physical, Earth, and Life Sciences and Engineering and learn how to integrate literacy practices and social studies into science investigations with students.

The second week (**July 16 to 22**) will be open to teachers of 6th–12th grade science. Participants will learn how to use the STEM Corps and Real World Science curriculum guides and best practices in science education. We will discuss activities in Physics, Chemistry, Earth, and Life Sciences and Engineering and learn how to integrate literacy practices and social studies into science investigations with students.

For more information, visit www.nationalww2museum.org/realworldscience

Apply to Your State Now to Become a 2023 U.S. Department of Education Green Ribbon School, District or Postsecondary Sustainability Awardee

U.S. Department of Education Green Ribbon Schools (ED-GRS) is a recognition award for school sustainability that connects school built and natural environments, health, and learning. For over a decade, it has been the anchor for the Department's work related to environmental sustainability. Schools, districts, postsecondary institutions, and early learning centers of all types that show progress in all three award Pillars are eligible to apply to their state education authorities. The ED-GRS Pillars are: 1) reducing environmental impact and costs; 2) improving health and wellness; and 3) offering effective environmental and sustainability education.

For those schools progressing in all three of these areas that have not previously received the ED-GRS award, now is a great time to contact your state about the 2022-2023 application cycle. All schools can advance toward these aims by using the resources on the Green Strides School Sustainability Resource Hub. Interested colleges and universities may contact their state higher education authorities, while schools and districts may contact state educational agencies. If your

state has not submitted nominations for this federal recognition award in the past, you can play a role in requesting that it does this year! For more information on award administration in Louisiana email. Environmentaleducation@la.gov

Learning Blade®

Learning Blade®, a STEM, Computer Science, and CTE resource is available **FREE** statewide in Louisiana through a joint venture of the Louisiana Board of Regents, LaSTEM, the Boeing Company, the Louisiana Dept. of Education and the Foundation for East Baton Rouge School System.

Learning Blade's over 400 online interactive lessons include **over 100 science-related** lessons that are aligned to state science academic standards for grades 5-9. Students are exposed to hundreds of unique STEM/CS/CTE-related careers and technologies while reviewing academics. See Mission Outlines.

Learning Blade also recently added the **New Introduction to Coding** course which includes over 20 hours of coursework aimed at 7th-8th graders but can also be used for other grade levels.

Sign up for your free Louisiana Learning Blade account today by filling out the form at www.LearningBlade.com/LA.*

Email us at info@learningblade.com to set up training or to learn more.

*Note: Learning Blade is free to all Parishes/Districts upon the signing at the Parish/District level of the Student Data Sharing Agreement.

Audubon Zoo

This school year is rapidly approaching and Audubon Nature Institute's School Programs team would love to give your students a ***wild*** start to the year with our 45-minute programs featuring live animals from the Zoo. Click here to request your virtual school program, FREE for Title One Schools, today!

Audubon's virtual programs are highly interactive and connect your students to nature and science over Zoom. Our lessons are aligned with Louisiana state science standards for grades K through 12th and are offered Monday through Friday from 9:00am – 3:00pm. We have availability starting August 29th. Reservations will be made on a first-come and first-served basis, so don't delay in securing this fun and unique opportunity to enrich your curriculum!

Audubon's virtual school programs are free for all Louisiana Title 1 schools*, while Title 1 Targeted Assistance Programs receive a 10% discount from the $100 per program rate. (*Limit one free program per classroom per school year.)

Audubon's Virtual School Program themes include:

- **K-2nd Creature Coverings**: Explore the world of animal coverings, coats, skins, and more!
- **3rd-5th Oh, the Things They Eat**: Learn about the different roles animals play in a food chain!
- **6th-8th Bayou Diversity**: Discover the rich ecosystem of Louisiana and learn about the interdependence of native plants, animals, and humans!
- **9th-12th Mississippi River Story**: Learn how the Mississippi River shapes the land and the impacts it has on our ecosystem and daily lives.
- **9th- 12th impacting Wetlands**: Learn how wetland ecosystems impact coastal communities and discover local conservation groups and their efforts.

You can find more information at https://audubonnatureinstitute.org/virtual-education or feel free to reach out directly to this email (schoolprograms@audubooninstitute.org).

Arctic Ocean Curriculum Unit

The Arctic Research Consortium of the U.S. (ARCUS) announces a new resource, a curriculum unit focused on the Arctic Ocean.

The Arctic Ocean Curriculum Unit was created by ARCUS with funding from the North Pacific Research Board. The unit updates lessons originally created by PolarTREC alumni teachers to create a unit that uses recent data, aligns with Next Generation Science Standards (NGSS), polar, and ocean literacy principles, and encourages cultural relevancy. The format used lends itself to the changes in education - providing student-facing slide decks that allow them to move through the lessons with more independence.

The unit traces the movement of energy throughout the Arctic Ocean environment. There is a total of 18 lessons broken into two main components. The entire unit can be downloaded through the resources section of the PolarTREC website (https://www.polartrec.com/resources).

For more information and to download the unit, go to: Arctic Ocean Curriculum Unit webpage: https://www.polartrec.com/resources/lesson/the-arctic-ocean-curriculum-unit?amp%3Bqid=6854120

For questions, contact: Janet Warburton, warburton@arcus.org

Unique Learning Opportunities Await You at Cane River Creole NHP

Cane River Creole National Historical Park is proud to partner with teachers and educators to provide curriculum-based, hands-on Science, Arts, Environmental Science, and History education experiences in the park, virtually, and in your classrooms. We are excited to connect both educators and learners with the unique resources of the Cane River area. Bring your class to visit Cane River Creole National Historical Park to explore a range of subjects including science, history, and the arts on one of our curriculum-based field trips. For schools nearby, Rangers will bring the park to your classroom though our In-Classroom Visit Programs. These programs include a wide range of topics such as Environmental Science and Reading, all building on curriculum standards. For schools further away, educators can schedule a program from anywhere in the world via a Distance Learning Program. Enhance your student's in the classroom learning with our lesson plans and other learning materials available to you online at www.nps.gov/cari/learn/education.

2022 Project WET Educator workshop NPS Photo

2022 Project Learning Tree Educator workshop NPS Photo

The park is pleased to offer a range of professional development. Join us for one of our single day Education workshops and return to your classroom with new tools and materials. For a more in-depth experience – become a Teacher-Ranger-Teacher(TRT). TRT is a program that offer teachers a unique opportunity to enhance their teaching resources with National Park Service-based Science, Technology, Engineering and Mathematics (STEM) education, use primary sources, and experience place-based learning. All while earning graduate credit through partnership with the University of Colorado Denver

National Park Service staff are available to help educators infuse their learning with National Park Service and STEM resources. To reach the park's education team visit us at www.nps.gov/cari/learn/education, email cari_interp@nps.gov, or call 318-352-0383 x316 and leave a voicemail. The Park Rangers at Cane River Creole NHP can not wait to connect you with these tools and resources!

LASM Announces Return of Free First Sundays

Youth Wetlands Program Online Learning Platform

Youth Wetlands Program online learning platform was now available. Teachers can sign up for free to gain access to lesson, activities, and other distance-learning resources. I'm including a link to the press release that went out from LSU AgCenter about the site. (https://www.lsuagcenter.com/profiles/jmorgan/articles/page1611327199513)

NEEF Watershed Sleuth Challenge

The Watershed Sleuth Challenge

With NEEF's Watershed Sleuth Challenge, students will learn more about their local watershed—what it is, why it's important, and what they can do to help protect it—as they earn badges at each level of this three-part course

New and Updated Resources for OpenSciEd Middle School Pilot

To assist teachers, schools, and systems with piloting OpenSciEd for middle school, the Department has updated existing resources and released new pacing documents.

These resources include

- Grade 6 and Grade 7 pilot guides updated with pacing guidance for the first three units in each grade;
- Grade 7 and Grade 8 pilot guides updated with links to newly released public units;
- OpenSciEd Distance Learning guidance updated to include Grade 8 Natural Selection; and
- OpenSciEd Purchasing and Professional Development updated kit purchasing information for revised units.

Additionally, ten units are now available in the National Instructional Materials Access Center (NiMAC) Inventory with more coming soon.

Please contact STEM@la.govwith questions.

STEM Resources from the US Department of Education

The US Department of Education has recently shared two resources that may be useful supporting STEM learning.

● Data.gov is a database with over 335,221 real-world datasets from a variety of sources updated weekly and connected to free resources to help show how data shapes our lives.
● STEM Rising from the US Department of Energy features a monthly newsletter, social media connections, virtual learning resources, college workshops, and online career resources.

Please contact STEM@la.gov with questions.

New Self-Paced Science Professional Learning Modules Available Now

To assist teachers, schools, and systems with implementation of high-quality science curricula, the Department has released three self-paced learning modules. These resources are designed to fit flexibly in a variety of professional learning formats. Modules may be accessed individually for an "at your own pace" style of PD or delivered by Content Leaders or other science leaders to drive professional learning and facilitate collaborative conversations. Learning modules are focused on the topics below and are available now.

● Science Instructional Model and Planning Guide
● Productive Science Talk and Planning for Discussion
● Leveraging Student Resources in Science

Each module includes a brief description, video, slide deck, and associated handouts.

Please contact STEM@la.gov with questions.

Interact with PC's New Education Videos!

Join Pontchartrain Conservancy's Education Department in a series of videos that encourage participants to learn more about their local environment. These videos are interactive, with places for viewers to pause and answer questions, make predictions, or design and test their own experiments. Students and anyone interested are invited to participate in fun interactive ways, from writing down answers to building models!

There are currently four videos in the series that cover an array of environmental topics. The Coastal Land Loss Video Survey explains what the primary causes of land loss are and what can be done about it. The Ecosystems of the Pontchartrain Basin Survey covers what an ecosystem is and the animals and plants that live in ecosystems near the Pontchartrain Basin. The Hydrological Modifications Video Survey explains what hydrological modifications are and their main functions. The MLODS Video Survey teaches the Multiple Line of Defense strategy and its impacts on coastal communities. https://scienceforourcoast.org/pc-programs/education/interactive-videos/

NASA EXPRESS

NASA EXPRESS features updates from NASA and STEM associates about workshops, internships, and fellowships; applications for grants or collaborations; promotions for student and educator opportunities; online professional development; and other announcements.

LaSPACE Research Enhancement Award (REA) Program Now Open

The LaSPACE REA (Research Enhancement Awards) Program is now open. The revised guidelines are attached here in word & pdf and have been posted to the LaSPACE website for download. Please take note of the details and solicitation schedule listed below. We require an NOI in advance of proposal submission. These notices will assist us with lining up reviewers. The NOI is required and proposers who do not submit one on or before April 3rd ARE NOT ELIGIBLE to submit a proposal. Summary details are included below, but again, please read the full guidelines carefully. Noncompliant proposals will not be considered for funding.

Research Enhancement Award (REA) Program

The LaSPACE Research Enhancement Awards (REA) Program is intended to provide support for faculty (and students) at LaSPACE member institutions, particularly aimed at the emerging researcher or an established researcher who wishes to pursue new research directions, for the development of projects, contacts, and collaborations that will bring Louisiana scientists into the mainstream of NASA related research activity, thereby increasing their chances to successfully compete in the aerospace R&D marketplace. As with all LaSPACE Programs, minority participation is strongly encouraged. The REA Program is funded by state matching funds, through the Louisiana Board of Regents Support Fund. The awards are intended to develop expertise and to contribute to research competitiveness. However, awards are not intended purely to support faculty salaries or student stipends. It is anticipated (and advised) that students will be involved in REA projects, but the overriding goal is the development of research capabilities and infrastructure in support of the country's space/aerospace endeavors. In that regard, contacts/collaborations/ties to NASA centers and NASA researchers are strongly encouraged.

Program Summary

- A Notice of Intent (NOI) to propose is required for the REA program. NOIs do not need to be routed for institutional approvals/signature the way the final proposal needs to be.
- The overall goal for this Program is to effectively utilize the resources available through LaSPACE as incentive for faculty and students: 1) to develop research competitiveness, 2) to develop new research projects or directions, and 3) to foster collaborations with NASA researchers, federal laboratories, and with the business/industry community.
- Tenured, tenure-track, or research faculty at the level of Assistant/Research Professor or higher affiliated with LaSPACE campuses are eligible to apply. On ALL proposals, only one PI can be proposed. Additional personnel should be listed as key personnel / researchers.
- PIs may only submit one proposal per competition cycle.
- The final invoices and a final technical report must be submitted to the LaSPACE office within 30 days of the project end date. Photographs and copies of all papers, presentations, and posters generated should be shared with LaSPACE as they occur and collected/referenced in the final report. Final Report guidelines can be downloaded from the LaSPACE website's document center.

Proposal Submissions

- Submit all properly executed proposals via email as fully searchable pdf documents to laspace@lsu.edu by **11:59 pm on Monday, May 8, 2023.**
- Important Dates:
  - Proposal Release Date: Monday, February 6, 2023
  - **NOI Due Date: Monday, April 3, 2023**
  - **Proposal Due Date: Monday, May 8, 2023**
  - Anticipated Award Announcements: June 2023
  - Award Period of Performance: 09/15/2023 - 09/14/2024

Louisiana Department of Wildlife and Fisheries

LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES
FISHERIES OUTREACH TEAM

How Can Our Team Serve You?

We offer a variety of programs and workshops that focus on different topics related to fisheries education. These programs are available to formal and non-formal educators statewide.

Aquatic Volunteer Instructor Program (VIP)

- Hands-on workshop that trains educators and volunteer instructors how to teach aquatic education activities such as knot tying, basic tackle, casting techniques, fish identification, fish anatomy, invasive species, fisheries management, pond ecology, and fishing safety
- Borrow equipment from LDWF to use in the classroom while teaching the lesson plans provided by LDWF
- Volunteer at LDWF events or create your own fishing clinic, aquatic education program, or fishing tournament
- For more information, contact Erin Olson at eolson@wlf.la.gov or 504-286-4165

Native Fish in the Classroom (NFC)

- Hands-on, classroom based aquaculture stewardship project for grades 6-12 to learn about fisheries management, fish biology, and aquatic natural resources by growing native Louisiana fish (paddlefish) from eggs to fingerlings
- Attend a summer and winter workshop as well as a field trip for the spawning event
- For more information, contact Heather David at hdavid@wlf.la.gov or 225-763-5415

Wetland Education Teacher workshop (WETshop)

- Week-long coastal awareness workshop that is hosted in Grand Isle every summer
- Teachers work with scientists and educators from various organizations to learn about Louisiana's coastal wetlands and become wetland stewards
- For more information, contact Heather David at hdavid@wlf.la.gov or 225-763-5415

Fisheries Mobile Museum (FMM)—COMING SOON!

- A concession style trailer with five door openings that focus on fish identification, fisheries management, invasive species, Sport Fish Restoration Program, and sampling methods
- Schools/events will be able to request this interactive trailer which will include a booklet that follows along with each topic
- For more information, contact Lindsay Seely at lseely@wlf.la.gov or 225-765-2375

Hosting an Event and Need Vendors? We can help with that too! We are happy to assist you in your classroom, on school grounds, or in local community parks with various activities. Scan the QR code to request assistance at your next event from either our LDWF Staff or Certified Aquatic Volunteers.

Cover page

University of Louisiana at Lafayette Engineering and Technology Expo

Chemistry Shorts™ Releases New Video and Lesson Plan on Directed Evolution Technology

The materials are available free of charge via chemistryshorts.org

Like demolition derby cars continually upgrading to face greater and greater challenges, enzymes can undergo modifications in the test tube that make them better and better at solving problems in our everyday lives. But can we evolve them fast enough to clear some of our biggest obstacles?

Our world faces climate, economic, and sustainability challenges that we don't yet have the tools to fix. "**Driving Reactions**," a nine-minute short film from *Chemistry Shorts*, explores how directed evolution and the chemical sciences are creating some of these new tools.

"Driving Reactions" explores the power of harnessing nature's own innovations to solve problems. Featured scientists **Professor Hal Alper** of the University of Texas at Austin and Nobel Laureate **Professor Frances Arnold** of the California Institute of Technology use directed evolution to design enzymes that work as molecular machines, helping create a more sustainable world using the power of chemistry. These new enzymes open the door of scientific progress, creating solutions for recycling waste, creating sustainable fuels, and more efficiently producing materials we use in our everyday lives. "Driving Reactions" focuses on Dr. Alper's innovative work to design an enzyme that can efficiently degrade PET, or polyethylene terephthalate, one of the most common plastics found in water bottles and other everyday objects, into infinitely recyclable and reusable products.

"We have the ability to use the power of chemistry to find sustainable solutions for the future." - Hal Alper, "Driving Reactions"

"Driving Reactions" is aimed at high school and college students and can be used as a starting point for discussions around polymer chemistry, enzyme reactions, directed evolution, DNA, and plastic recycling.

The film is available for immediate viewing and use in teaching free of charge on the *Chemistry Shorts* YouTube channel. A full lesson plan to accompany the film is available on the *Chemistry Shorts* website.

Inquiry: Free STEM Professional Development for K-12 Teachers - University of New Orleans

JOIN US!
FREE STEM PROFESSIONAL DEVELOPMENT FOR TEACHERS

UNIVERSITY OF NEW ORLEANS
NEW ORLEANS, LA | JUNE 26-30, 2023

OUR PROGRAM

ASM Materials Camp®-Teachers is a free, week-long, idea-generating workshop introducing teachers to methods that make math and core science principles more enticing and relevant to their middle and high school students. Materials topics are great motivators in any engineering, technology or science course as students learn concepts that are reflected in their everyday lives.

WHAT MAKES US DIFFERENT

Teachers leave our camps able to engage students using simple, low-cost experiments that integrate into existing lesson plans.
Participants are eligible to receive four (4) Continuing Education Units (CEUs) and can opt for two (2) graduate level credits.

REGISTER TODAY

For more information and to view the 2023 ASM Materials Camp®-Teachers Summer Schedule, please visit asmfoundation.org

SCAN ME! Watch a video about ASM Materials Camp® Teachers!

"I couldn't help but say many times 'I can't believe this camp is free!' I knew that this camp had a sterling reputation based on blogs read from other teachers, but my expectations were exceeded between the physical materials used for labs, freebies, wealth of information, and lessons provided by master instructors. This was the best professional development camp I have ever attended."

—Amanda S.

QUESTIONS?
Jeane Deatherage, Administrator of Foundation Programs
jeane.deatherage@asminternational.org | 440.671.3831

MATERIALS CAMP®
ASM MATERIALS EDUCATION FOUNDATION

Your Sophomores and Juniors can Advance their Studies at Tulane Pre-College!