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LOUISIANA SCIENCE TEACHERS ASSOCIATION

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



December 2018 | Louisiana Science
Teachers Association

LSTA Board and Regional Representatives

Patrice Mire President patrice.mire@vpsb.net	Susannah Craig Vice President Susannah.f.craig@gmail.com	Nathan Cotten Past-President nathancotten@tpsd.org
Shauna LeBlanc Secretary shauna.leblanc@lpssonline.org	Jean May-Brett Treasurer/BaP-SM SC/NSTA Liaison jam05@bellsouth.net	Suzanne Ney Membership suzanne.ney@lpsd.org
	Lydia Hill LA Science Program Coordinator lydia.hill@la.gov	Jan Graff Awards Coordinator jlgaff@bellsouth.net
Casey McMann Region 1 Representative cmcmann@ppsb.org	Bianca Deliberto Region 2 Representative bianca.deliberto@zacharyschools.org	Tammy Brouillette Region 3 Representative tammybrouillette@tpsd.org
Breyone Carter Region 4 Representative bscarter@lpssonline.com	Darrell McDaniel Region 5 Representative darrell.mcdaniel@cpsb.org	Pierre Lacaze Region 6 Representative pierre.lacaze@rpsb.org
Jeff Holcomb Region 7 Representative jeffreygholcomb@gmail.com	Laura Malone Region 8 Representative lauramalone@opsb.net	Stephen Knight LASER Editor stephen_knight@saintmartinschools.org
Nicole Cotten LSTA Web Master nmcotten12@gmail.com		Rob Wallace Social Media Coordinator rob.wallace@nationalww2museum.org

LOUISIANA SCIENCE TEACHERS ASSOCIATION

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President's Message from Patrice Mire**Hello Everyone!**

Thank you to everyone who attended the Joint LATM/LSTA Conference in Shreveport! This year's theme was Full Steam Ahead! I would like to express my heartfelt thanks to the members of LATM and LSTA for the many hours of time they volunteered in planning this conference. A special thanks to **Jean May-Brett** and **Jan Graff** for their tireless efforts in making this year's conference a BIG success! I would also like to thank Pearson and Carolina Biological for sponsoring this year conference this year. Also, a huge thanks to **Debbie Silver** and all the presenters! Without you, our conference would not be the huge success that it has been. I would like to congratulate the 2018 LSTA award recipients: Essie Beck "Rising Star" Award **Tyler Dufrene** and Outstanding Middle School Science Teacher **Lisa Swenson**.

The Louisiana Environmental Education Commission will be staging workshops and/or tours in each of the major regions around Louisiana in lieu of a single-location conference. The regional short courses will take place on Saturday, February 16, 2019. The theme of this year's program is "*Taking Environmental Action: What's Great About Your Part of the State?*" Workshops will be held in each major region of the state (Alexandria, Baton Rouge, Lafayette, Lake Charles, Monroe, New Orleans, the North Shore and Shreveport). Educators are welcome to attend any short course regardless of their home regions. Click [here](#) for more information and to register.

Applications for the 2019 National Youth Science Camp are now open! The [National Youth Science Camp](#) is a residential science education program for young scientists the summer after they graduate from high school. Applicants must be a graduating high school senior to apply. (Deadline is February 28, 2019).

Do you know an outstanding STEM educator in grades 7 - 12? Please consider nominating them for the [Presidential Award for Excellence in Mathematics and Science Teaching](#), the nation's highest honor for teachers of science, technology, engineering, and mathematics (including Computer Science). Nominations will close on March 1, 2019.

The 2017-19 LSTA board will conduct their next board meeting on Saturday, January 26, 2019. One item on the agenda will be putting the finishing touches on our next regional workshops to be conducted in the spring for Louisiana science educators. These workshops will be free-of-charge for any LSTA member. If you are not a member, then your registration fee will be an LSTA membership of \$15 which will last until our next conference to be held in Baton Rouge November 4 – 6, 2019. Your regional representatives will be sending emails with details. Also, check the [LSTA web site](#) and we will post details as they become available.

Finally, I want to remind everyone that LEAP 2025 for Science is operational this year. Please review the [Science Assessment Guides](#) and have your students complete the [Online Tools Training](#) and the [Practice Test](#). It is never too early to begin preparing our students for LEAP 2025!

I would like to wish you and yours a VERY Merry Christmas and a Happy New Year!

Yours in SCIENCE EDUCATION,



LSTA Honors Outstanding Educators and Travel Grant Winners

Each year LSTA honors up to seven outstanding formal and informal educators and awards up to 10 Travel Grants to offset expenses associated with attending its annual conference. This year our organization recognized two dynamic classroom teachers and five Travel Grant winners. The honorees were presented on October 23, 2018, during *Full STEAM Ahead*, the LATM/LSTA conference held in Shreveport. They are as follows:

Essie Beck "Rising Star" Science Education Award

Tyler Dufrene

Hahnville High School

Boutte, LA

LSTA Middle School Science Teacher of the Year

Lisa Swenson

Isidore Newman School

New Orleans, LA

LSTA Travel Grants

Andrea Ambrew

Minnie Ruffin Elementary School

Monroe, LA

Holly Gildig

Holden School

Holden, LA

Cecelia Gillam

Hahnville High School

Boutte, LA

Jennifer Green

R. K. Smith Middle School

Luling, LA

Lindsay Seely

Dutchtown High School

Geismar, LA



Nominations Open for Presidential Awards



Nominations Open for Presidential Awards

The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) are the Nation's highest honors for teachers of science, technology, engineering, and mathematics (STEM, including computer science). The Awards recognize outstanding K-12 teachers for their contributions in the classroom and to their profession. PAEMST has planned numerous outreach activities to help support the nominees through the application process and to promote the program. The current cycle is for secondary (7-12) educators. Online nominations for secondary science, technology, engineering, and mathematics teachers are open through March 1, 2019, and may be submitted at www.paemst.org.

In order to be eligible for the program, the applicant must:

- Teach science, technology, engineering, mathematics, and/or computer science as part of their contracted teaching responsibilities at the 7-12 grade level in a public (including charter) or private school;
- Hold at least a bachelor's degree from an accredited institution;
- Be full-time employees of the school or school district as determined by state and district policies, with responsibilities for teaching students no less than 50% of the school's allotted instructional time;
- Have at least five years of full-time employment as a K-12 teacher during which science, technology, engineering, mathematics, and/or computer science has been a part of the applicant's teaching duties prior to the 2018-2019 academic school year;
- Teach in one of the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the Department of Defense Education Activity schools, or the U. S. territories as a group (American Samoa, Guam, Commonwealth of the Northern Mariana Islands, and U.S. Virgin Islands);
- Be U.S. citizens or permanent residents; and
- Not have received the PAEMST award at the national level in any prior competition or category.

Please contact Jan Graff (jlgraff@bellsouth.net) for additional information or clarification.



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

LSTA/LATM Joint Conference: Full Steam Ahead

The joint conference was a huge success. A special thanks goes out to all who participated.



Regional News

✦ Region I ✦



Teachers from around the state gathered at the Joint LSTA/LATM conference Oct. 22-24 to share their experiences and knowledge with each other. This group of teachers is discussing new biology curriculum materials in a session with Plaquemines teacher **Casey McMann**.

Please submit news for Region 1 to **Casey McMann** at cmcmann@ppsb.org.

✦ Region II ✦

In 2019, the **Louisiana Environmental Education Commission** is bringing continuing education to you! Throughout the upcoming year we'll be focusing on environmental efforts going on in each part of the state and are staging workshops and/or tours in the major regions around Louisiana. These regional short courses will take place on **Saturday, February 16, 2019** and will be designed to provide continuing education for both formal and non-formal educators. Formal educators may earn up to 7 Continuing Learning Units (CLUs) in coursework that emphasizes hands-on experiences led by experts in scientific fields. Additionally, the Louisiana Environmental Education Association will provide a \$30 stipend to classroom teachers that complete the course. Registration for short courses is \$20, which includes lunch. For more information, visit <http://www.wlf.louisiana.gov/2019-leec-regional-short-courses>.



Congratulations to **BASF** for receiving the 2018 Outstanding Corporate Support Award at this year's **Louisiana Association of Museum's** conference! BASF Kids' Lab is an award-winning, global program offered in more than 30 countries to promote interest in chemistry through safe, engaging hands-on experiments. The goal of Kids' Lab is to foster science literacy by encouraging children to explore the connections between chemistry and the world around them. At the Louisiana Art & Science Museum, Kids' Lab offers a wide variety of chemistry experiments and demonstrations on the second and fourth weekends of every month for young scientists and their accompanying adults. Through the generous support of BASF since 2011, over

15,000 schoolchildren and 10,000 public visitors have participated in the Kids' Lab chemistry workshops. Over 5,000 visitors have received free Museum admission through BASF-sponsored First Sundays, and thousands more have enjoyed Pop-up Science and Engineering Day activities. Their generosity has made chemistry education accessible to all of the Museum's visitors and has provided the resources for staff to more effectively impact the community. It is an honor and a delight to "create chemistry" with BASF!

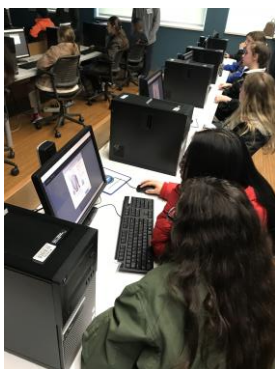


Louisiana Science Teachers Association Newsletter (www.lsta.info)

The **Contemporary Physics Education Project (CPEP)** has established the **International CPEP Award for Excellence in Teaching Contemporary Physics** to recognize an educator working with high school or middle school students, who has made outstanding achievements in teaching contemporary physics topics. Contemporary physics topics include, but are not limited to, particle physics, nuclear physics, plasma physics, cosmology, fusion physics, and gravitational waves. Please see www.CPEPphysics.org for more details on these topics.



20 Eighth graders from **Live Oak Junior High School** in Livingston Parish were invited to attend GIS day in Baton Rouge. Geographical Information Systems, GIS, holds a yearly international forum to encourage the use of GIS technology to demonstrate real-world applications. The students participated in spatial analysis activities, tree mapping technology, and story mapping. Students also enjoyed interacting with a giant Louisiana floor map in which they explored distance, natural resources, and the major water sources.



Please submit news to your region 2 representative, **Bianca Deliberto** at bianca.deliberto@zacharyschools.org.



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

✦ **Region III** ✦

West St. John High school STEM Club participated in the Annual STEM fest at the Superdome in New Orleans. Eight members of the club modeled and demonstrated several stem concepts from chemical reactions, making 3-D models using doddle pens to robotics. The club president oversaw preparations leading up to the event to make sure all projects were ready. The club sponsor, **Rochelle Darville**, is excited about the club's involvement and growing their interest in the field of Science Technology Engineering and Mathematics. The team is looking forward to the upcoming robotics competitions by First LEGO League and their Spring Community STEM Night.



Students in **Dawn Sevin's** class at Lacache Middle School participated in a science investigation aimed at determining why the population of Fiddler Crabs is changing around LUMCON. Students designed their own investigation and determined what factors to look for and measure that would have the greatest impact on the crab population.



Ashley Townsend, STEM Teacher at Oak Grove Primary School, has kept students very busy this year. Her first graders made observations about some hydroponic herbs which is an extension of last year's investigation on whether plants need soil to grow. Fourth graders have been working on an engineering unit from the Smithsonian involving the designing, constructing, and marketing of a fan. Students have a new garden and a 2.0 weather station thanks to grants from Shell Geismar and Rubicon. Oak Grove Primary's First LEGO League robotics team has something for all grade levels. Kindergartners are using BeeBots, and



students all grade levels are learning coding skills. Polly Glover, a board member of The Coalition to Restore Coastal Louisiana spoke with the Beta club about coastal land loss and saltwater encroachment. Following the presentation, students planted coastal grass in the new garden to allow for the study of root systems and erosion.



Ten FLL teams competed in a qualifying tournament for schools in Region 3. Students from Terrebonne and Lafourche Parish Schools and E-Learning competed. Mulberry Elementary received Championship recognition. Sixth Ward Middle School, Coteau-Bayou Blue Elementary, Oakshire Elementary, and Mulberry Elementary all qualified for state competition. A special thanks goes out to **Ms. Lisa Ranney** (Region 4)



and her FRC team (Team 3616) for organizing and hosting the event for the first FLL competition in the bayou region.



Please submit news for Region 3 to Tammy Brouillette at tammybrouillette@tpsd.org.

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

✦ **Region IV** ✦

St. Martinville Junior High School First Lego League Teams

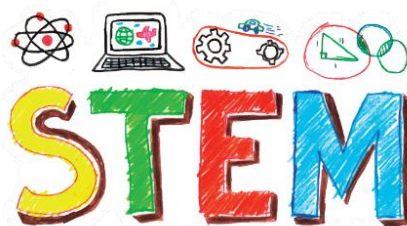
The St. Martinville Jr. High School first LEGO League Teams: RoboPros and RoBrains competed at the ULL Ragin Cajun Qualifier tournament on November 10, 2018.

ULL Science Innovation Camps Fall 2018

Mermentau Elementary's Science and Math teacher **Sue Breaux** has been awarded a \$1000.00 Quality Science and Math Grant (QSM) to conduct a project-based learning unit on bicycle helmet safety. The students will conduct research, plan and design a bike helmet, and publish a bike safety pamphlet. Inquiry and redesign will be the underpinnings of the experimental approach, allowing the students to experience science as an engineer would.

This interdisciplinary STEM lesson will involve Vernier technology probes measuring force and acceleration, math and science concepts dealing with forces, and a literacy piece with an informative brochure.

STEM Rocks!



Lafayette GEAR UP Hosts Smithsonian Scientists

Lafayette GEAR UP hosted Smithsonian Scientists in each of the four LPSS GEAR UP high schools at the end of October. These teaching scientists gave lessons in biology classes at Acadiana High, Carencro High, Lafayette High, and Northside High. Students had the opportunity to have a hands on experience with working scientists who are experts in their field. These presenters engaged the students with hands-on experiments to encourage their curiosity and enthusiasm for science.



Please submit news for Region 4 to **Breyone Carter** at bscarter@lpssonline.com.

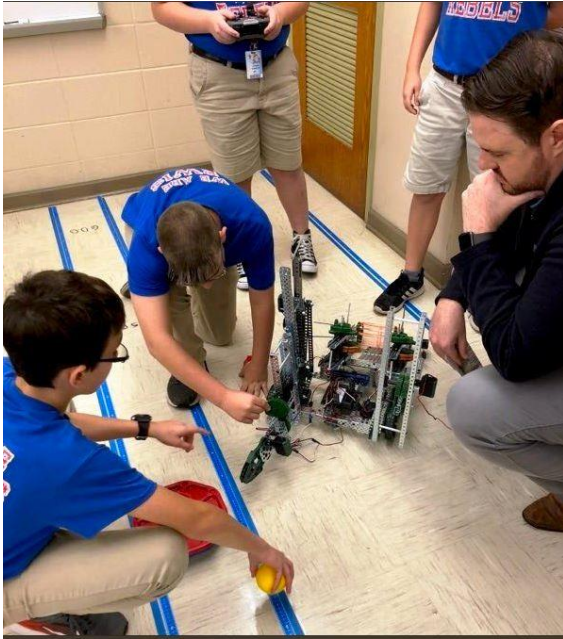


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✦ Region V ✦

CPSB's **Darrell McDaniel** authored a \$50,000 grant that was funded by Shell Oil Company. The grant will fund the creation of a new STEM lab at College Oaks Elementary School in Lake Charles. The new STEM lab will be attached to an existing computer lab that will add functionality. Planned equipment purchases for the lab include Active panels, iPads, Osmo coding kits, WeDo and EV3 robots, along with Vernier probeware.

Cheniere Energy, Inc. is proud to support STEM education initiatives in Calcasieu Parish Schools, like the Robotics Program at W. W. Lewis Middle School! The Vex Robotics Program was implemented at 9 middle schools in the CPSB district.



CITGO hosted a design challenge where Calcasieu Parish fifth-graders got to create race cars that only run on carbon dioxide. The CITGO team also named College Oaks' **Jason Mcgee** their "STEM Teacher of the Year".



Please submit news for Region 5 to **Darrell McDaniel** at darrell.mcdaniel@cpsb.org.

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✦ Region VI ✦

Many Region Six teachers attended the LATM/LSTA conference in October. Teachers were excited to learn many new strategies that they could bring into their classroom. It was great to see many teachers from our region. Thank you Region Six for a great turnout.

On February 27, students in the Native Fish in the Classroom Project have the opportunity to attend a fieldtrip experience at Booker Fowler Fish Hatchery, in Forest Hill, LA, where they will be actively engaged in the paddlefish spawn. Native Fish in the Classroom is an aquaculture stewardship project for intermediate to high school students where students in the spring raise paddlefish from eggs to fingerlings in a classroom nursery tank then release them to a LA Dept. Wildlife & Fisheries' pre-selected, pre-approved riverine site. For more information about Native Fish in the Classroom please contact Angela Capello at acapello@wlf.la.gov.

Louisiana Environmental Education Commission is having a regional short course in Woodworth on Saturday, February 16, 2019. The workshop is to explore lessons aligned to the LSS about wetlands. Teachers have an opportunity to learn about consequences associated with wetland habitat loss. Teachers will even have the opportunity to take a paddle trip through wetlands. Participating educators will be able to take home lessons to supplement their current curriculum as well as program supplies. A fee of \$20 is required to complete the registration process. Lunch will be provided and teachers will be eligible to receive a \$30 stipend. A number of other workshops will be held on that day, in each major region of the state (Alexandria, Baton Rouge, Lafayette, Lake Charles, Monroe, New Orleans, and Shreveport). To register, as well as a list of short course programs and sites please, visit <http://www.wlf.louisiana.gov/2019-leec-regional-short-courses> or contact Thomas Gresham at tgresham@wlf.la.gov.

Please submit news for Region 6 to **Pierre LaCaze** at pierre.lacaze@rpsb.us.

✦ Region VII ✦



Congratulations to Caddo Parish Schools MST Coordinator, **Lynda Delo** for being selected as the LACUE Region 7 Leader of the Year!.

The Regional Autonomous Robotics Circuit (RARC) is a series of three competitions for students in grades 2-12. The competitions build upon one another and allow students to showcase their STEM and cyber skills by competing against other students in their division. The first competition for the 2018-2019 school year was held in November. South Highlands won first place in the elementary division. Huntington High School placed second and Donnie Bickham Middle School place third in the high school division.

Anchors away! Sailors descended upon a half-dozen Bossier schools the last week of October to show students there is a lot more to the U.S. Navy than just sailing ships. As part of a Navy outreach program, children at Apollo, Bellaire, Cope, Kingston, Princeton and Plain Dealing High School learned about meteorology and oceanography; underwater mapping and seafloor education; the Explosive Ordnance Disposal unit and underwater robotics, and other topics dealing with science, technology, engineering and math (STEM)



Visiting a graveyard may not sound like a fun way to spend the day, but it is if you are on the annual Cope Middle School cemetery tour. Seventh graders went on what has become an annual pilgrimage to Fillmore and Mount Zion Cemeteries in Haughton, then the historic Oakland Cemetery in Shreveport. Students worked in small groups with a teacher or parent leader and collected data to use in math class. They also did rubbings and later discussed those epitaphs in English Language Arts class. Another highlight of the trip was working on a Scavenger Hunt, as well as completing a weathering and erosion science

activity. This trip is a complete hands-on approach to cross curriculum learning. By the time they finished, one thing was for sure; Cope students would never look at cemeteries the same way again!

Please submit news for Region 7 to Jeff Holcomb at jeffreygholcomb@gmail.com.

✦ **Region VIII** ✦



Cathi Cox-Boniol and **Missy Wooley** (Lincoln Parish Schools) facilitated follow-up professional development with all Lincoln Parish middle grades teachers who are piloting the new OpenSciEd curriculum throughout the district. Teachers collaborated on best practices moving forward in developing new units to match the OpenSciEd model.



sessions of other teachers

sessions were held on the Louisiana Tech University campus in partnership with SciTEC. Missy also facilitated a full day of professional development on developing assessments for OpenSciEd units for Lincoln Parish middle grades teachers.



Missy and Cathi then began four full-weekend OpenSciEd training for from across the state. All



Cathi and Missy presented a short course at the 2018 Joint LSTA/LATM Conference entitled "Bridge to Steam: Building Robust Integrated and 3-Dimensional Gateway Experiences." Participants engaged in an integrated 5-E Learning Cycle lesson that included literature, engineering design, further exploration, and other student-centered strategies.

Both joined stakeholders from across North Louisiana for the North Louisiana STEM Stakeholders Regional Meeting held at Louisiana Tech University where Cathi joined

Christy Bucker (Bossier Parish Schools) in presenting on behalf of the prek-12 Task Force.

Congratulations to **Dustin Whitlock** and **Randall Elliott** (both New Tech Academies) for their successfully funded mini-grant proposals to support the award-winning eco-car program. Dustin was also the recipient of a \$12,000 Weyerhaeuser Giving Fund Grant in support of eco-car.



William Bandy (Choudrant High School), **Sarah Johnston** (Simsboro High School), and **Sarah Wages** and **Zac Roberts** (both Ruston Junior High School) and students from their schools participated in the district's first One-Day Computer Build Workshop.

Facilitated by **Galen Turner**, **Kelly Crittenden**, and **Jean Gourd** from Louisiana Tech University and supported by Missy and Cathi, the workshop offered the teachers the opportunity to build their own computers during the first day with them then working with their students to build computers the second day. An overwhelming success, the experience sets the tone for the type of opportunities that the new Lincoln Parish STEM Center will offer when it opens in 2019.

Please submit news to your region 8 representative, **Laura Malone** at lauramalone@opsb.net

Professional Development Opportunities and Resources

#NationalChemistryWeek

We started celebrating this week's [#NationalChemistryWeek](#) early this fall when 875 people attended our October First Sunday free of admission, generously sponsored by [BASF Science Education in North America](#)! We explored the dynamic world of chemistry with engaging, hands-on activities that created countless "wow!" moments. It's always a pleasure to [#CreateChemistry](#) with [BASF](#).

Free First Sundays offer a variety of fun and educational activities for all students on the weekends, and at no cost to them. We are able to offer this amazing program with the help of our wonderful community sponsors, including BASF.

More information at LASM.org



Sharing Kids to Parks Day National School Contest

Facebook: @nationalparktrust

"Kids to Parks Day National School Contest is NOW open! @NationalParkTrust's contest is open to all Title I schools (40% of students qualify for free or reduced-priced lunch) and school groups in the U.S. in grades preK through 12. The goal of the contest is to help educators engage students with their local parks through education, outdoor recreation, and stewardship. Contest closes on February 14, 2019, with winners announced on the website on March 7, 2019. To download your entry form and apply -- and to review contest details, sample entries, and past winners -- go to <http://bit.ly/KTPScience>. Good luck to everyone!"



Twitter: @natparktrust

"Teacher or student at a #TitleI school? Enter @NatParkTrust's #KidsToParks Day National School Contest to win a free park trip! <http://bit.ly/KTPScience>"

Instagram: @nationalparktrust

Newsletter/Website:

"Fund Your School's Kids to Parks Day Trip

National Park Trust (NPT) invites students across the country to participate in the 9th annual Kids to Parks Day (KTP). KTP is a nationwide grassroots movement to celebrate America's parks and public lands and waters. To inspire kids and

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

schools to explore outdoors, we also host the Kids to Parks Day National School Contest, which is NOW OPEN! If you work at or attend a Title I school, you are eligible to enter and win up to \$1,000 to fund your dream park experience.

The deadline for entries is Thursday, February 14, 2019. Winners will be announced on the website Thursday, March 7, 2019.

Click here to learn more about the contest, download the entry form, and watch our school video from last year! Questions? Contact Billy Schrack, (william@parktrust.org) or Katie Zimmerman, (katie@parktrust.org) or call 301-279-7275. Or if you would like to help sponsor this program, contact Maryann Kearns (maryann@parktrust.org).



Framework for Leading NGSS Implementation

An excellent resource for districts, is available at

<https://www.wested.org/wp-content/uploads/2017/10/Framework-for-Leading-NGSS-Implementation.pdf>

Free NGSS-Designed Curriculum Available!

[SCALE Science Website is Live](#)

Teacher Institute for Evolutionary Science (TIES)

The purpose of the Teacher Institute for Evolutionary Science (TIES) is to familiarize interested science teachers with the concepts of natural selection, common ancestry, and diversity in order for them to confidently cover the topics in their classrooms and fulfill their curriculum requirements. TIES introduces teachers to the most important points of evolution and natural selection with a focus on the amazing advances of genetics. The success of TIES depends upon providing ready-to-use resources that teachers can begin to use immediately. Participating teachers or student teachers leave our workshops with presentation slides, labs, guided reading assignments, an exam, and a valuable resource list for their lesson plans.

TIES is funded by the Richard Dawkins Foundation for Reason and Science which is a subsidiary of the Center for Inquiry. School Districts wanting to in-service or provide professional development for their teachers can contact me to set up a workshop. The full workshop usually runs about 3 hours and includes content knowledge presentation on genetics and evolution, lab simulation and explanations and a walk through of the web page where they can access lots of free, high quality information, presentations, tests, labs, and activities. Here is a link to the website for your perusal:

<https://richarddawkins.net/ties/>

If you are interested in becoming a member of this amazing Professional Learning Community as a teacher or scientist, please take a minute to sign up on the website. If you don't want to participate, you can still feel free to take what resources you want and use them in your classroom. Everything that we have is FREE!

You can also follow us on Facebook @RDFRSTIES and Twitter @rdfrSTIES. The links are also on our website.

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James Patterson Library Classroom Library Give Away

I want all teachers and their students to have a great classroom library – that's why I'm partnering with [Scholastic Book Clubs](#) and giving away \$2M. Apply here: <http://bit.ly/2lvCO8q>

LSU's Chem Demo Program

The link below is about LSU's Chem Demo Program a science roadshow run by LSU

<https://cen.acs.org/articles/96/i17/Louisiana-State-Universitys-ChemDemo-program.html>

Scientist For A Day



2018-2019 Scientist for a Day Essay Contest

Audience: Students in Grades 5-12

Entry Deadline: Feb. 8, 2019

Contact: scientistforaday@jpl.nasa.gov

The Scientist for a Day contest challenges students to become NASA scientists studying moons of Jupiter and Saturn. Participants examine three moons and choose the one they think NASA should return to that would yield the best scientific results. This year's topics are Saturn's moon Enceladus, Saturn's moon Titan and Jupiter's moon Europa. After researching the three options, students write an essay under 500 words explaining their choice.

The National Stem Cell Foundation

The National Stem Cell Foundation (NSCF) partners with The Carol Martin Gatton Academy of Science and Mathematics and The Center for Gifted Studies at Western Kentucky University (WKU) to fund ten scholarships each year for middle school science teachers working to transfer a passion for science to students in this age group. Research shows that students who get excited about STEM subjects in middle school are the ones who are most likely to take those courses in high school and major in them at the college level.

National STEM Scholars receive advanced education in the development of STEM projects for classroom implementation, spend a full day with a national thought leader in STEM education and build a national network of colleagues for information sharing.

Scholars are selected based solely on the merit of questions answered in the application. The selection committee is not provided with names or locations of teacher applicants.

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In 2019, we will graduate our fourth cohort of National STEM Scholars. Each scholarship recipient receives the following:

- Advanced education and leadership training on the campus of WKU June 2-8, 2019. All expenses – travel, lodging, meals – are included
- A notebook/tablet (Chromebook or similar) to facilitate ongoing collaboration
- A credit of up to \$2,500 for technology and supplies to implement a classroom Challenge Project
- Sponsored attendance at the National Science Teacher Association (NSTA) Conference in Boston in April 2020. All expenses – registration, travel, lodging, meals – are included
- Year-long mentorship and support provided by Western Kentucky University faculty

Applications are open now at <https://www.wku.edu/gifted/nss/>.

[Click here](#) to learn more about the National Stem Cell Foundation. Please contact me if you have questions or would like more information.

American Physiological Society



American Physiological Society Online Teacher Professional Development Program



Invest a few hours a week
and get a transformed
classroom.

Who? Middle and High School Science Teachers

When? Program Runs: March 2019–February 2020
Applications Due: January 31, 2019

Program Highlights:

- ✓ \$300 grant for your classroom
- ✓ Pays you a stipend of \$1,300 for completed professional development lessons
- ✓ Focuses on student-centered learning and Next Generation Science Standards (NGSS)
- ✓ Engages you in a national professional learning community *during and after* the program



Learn more and apply at frontiersinphys.org.

Frontiers is a program of the American Physiological Society.

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SIX STAR SCIENCE ONLINE TEACHER (OT) PROFESSIONAL DEVELOPMENT PROGRAM – \$1,400 STIPENDS PAID (for completed work)

This program is a 10-month online pedagogy-based professional development that focuses on the three Dimensions in the Next Generation Science Standards: Scientific Practices; Cross Cutting Concepts (especially “Cause and Effect” and “Structure and Function”), and Core Ideas (Life Sciences) and on expanding teacher skills in three major areas: 1) Updating Teacher Content and Pedagogy Knowledge; 2) Understanding the Research Process; and 3) Applying Six Star Science in the Classroom. Fellows **receive stipends** for completion of their online work.

Online Teacher (OT) Fellows participate in a dynamic and interactive virtual learning community that focuses on exploring effective teaching strategies, understanding the research process, and enhancing classroom materials. **Application deadline: January 31, 2019**

More info on the program can be found at: www.frontiersinphys.org

Louisiana Junior Science and Humanities Symposium

LOUISIANA JUNIOR SCIENCE AND HUMANITIES SYMPOSIUM

January 17-19, 2019
Lod Cook Conference Center, LSU Campus
Baton Rouge, LA

Louisiana State University invites students currently enrolled in grades 9-12 and who are engaged in science, technology, engineering or mathematics (STEM) research to participate in the 46th Louisiana Regional Junior Science and Humanities Symposium. Join us in Baton Rouge and engage with students from around the state as they compete for scholarship opportunities. We will cover the cost of your hotel, meals and the Symposium. In return? We want to see your best work. If you are new to JSHS and do not have a presenter, please contact me and join us as an observer. We will cover your expenses for lodging, food and Symposium.

Sponsored by the U.S. Army Research Office, Office of Naval Research, and the Air Force Office of Scientific Research, students compete for scholarships and recognition by presenting the results of their original research before a panel of judges and an audience of their peers. Register on-line, submit an abstract and paper for review. The top 3 presenters at La-JSHS will earn a scholarship award and the top 5 will earn the opportunity for an expense-paid trip to compete at the National Symposium later this year!

To register for La-JSHS, visit our website, <http://www.outreach.lsu.edu/Pre-College-K-12/LaJSHS>, or contact me directly. You can also learn more about National JSHS at www.jshs.org.


Important Dates:

Registration is OPEN!
Competitive and Poster Selection Announcement: December 14, 2018
Observer, Teacher Registration Closes: Jan. 2, 2019

*National Association of Secondary School Principals has placed the JSHS program on the NASSP National Advisory List of Contests and Activities for 2018-19.

Excel(erate)

Excel(erate) Your Research Project!




An Opportunity to Present Your Research

The Junior Science & Humanities Symposia (JSHS) Program is one of the nation's longest standing science, technology, engineering, and mathematics (STEM) competitions. Sponsored by the U.S. Army, Navy and Air Force, JSHS seeks to identify, celebrate, and support students on their path to STEM careers.

JSHS is open to high school students in grades 9-12 who engage in original STEM research investigations. Students are invited to present their results to a forum of peer and practicing researchers representing academia and military services. Regional and National students receive recognition for STEM pursuits and winners of the competition receive undergraduate, tuition based scholarships.

Learn more at www.jshs.org



"Just by attending, my earlier cynicism that high school students can't really change problems we see in the world today, especially those related to science and technology, was dispelled. JSHS showed me that yes, students' curiosity, creativity, and passion is enough to see a science project through and to hope-fully develop or find a breakthrough that could change the scientific world." —Ayushi, JSHS 2016


Find your place within a nationwide community of student-researchers who engage in STEM and who are inspired to excel

Scientific inspiration and breakthroughs happen at all levels of education and stages of discovery. JSHS allows students to explore real-world challenges in STEM and to develop skills which benefit future academic success in college and beyond.

Gain Experience & Build Your Network

By participating in Regional and National symposia, students:

- Meet students like you who are pursuing their STEM interests through research projects.
- Network with STEM professionals representing academia and Dept of Defense research and development labs.
- Develop skills to help prepare for undergraduate and graduate pursuits—skills in the application of science content to solve a problem or to gain new knowledge, writing a paper, and communicating results.
- Explore how STEM professionals' research is relevant to the world in which we live.
- Contribute to the collaborative STEM community.



Visit www.jshs.org/ regioncontacts to locate the JSHS Regional Symposium in your area.

"...winning that competition was a defining moment— It was my first time being recognized for my work in physics. It showed that my hard work finally paid off and it inspired me to keep going and keep growing in the STEM field." —Katherine, JSHS 2014

JSHS Calendar

OCTOBER
Regional registrations: check website for requirements and deadlines: www.jshs.org

JANUARY - MARCH
Regional symposia held

APRIL
National JSHS competition



Join the Competition

JSHS participation starts with your engagement in STEM. To enter, students:

- Prepare and submit a written report (abstract and/or paper) of their STEM research investigation for review by a regional panel of judges;
- Deliver a concise oral presentation to the symposium;
- Complete registration and/or application materials; and
- Comply with regional and national rules and policies that apply to the preparation of the written reports and their oral presentations.

JSHS is administered by the Academy of Applied Science in cooperation with nationwide colleges and universities



ACADEMY OF APPLIED SCIENCE

For additional information contact:
Academy of Applied Science
24 Warren Street | Concord, NH 03301 • 603-228-4530 | cousens@jshs.org

JSHS by the Numbers

- 8,400 students participate in 47 university-sponsored Regional symposia throughout the United States, Puerto Rico, and DoD Dependents Schools of Europe and Pacific.
- National symposium brings together 240 student delegates selected from regional competitions winners.
- Undergraduate, tuition-based scholarships totaling \$403,500 are awarded annually to Regional and National student finalists.
- Research categories: Environmental Science, Environmental Science/Engineering; Biomedical Sciences; Molecular/Cellular; Life Science; Medicine and Health/Behavioral Sciences; Engineering and Technology; Math and Computer Science, Computer Engineering; Physical Science, including Physics, Astronomy, Internet of Things; Chemistry.
- Teacher Awards granted to 47 high school teachers to honor their contributions to the encouragement of scientific research at the high school level.



National Geographic Geo Challenge

Registration is now open for our newest student competition for 5th-8th graders. The GeoChallenge is an annual competition that challenges students to create a solution to a real world problem. This year's theme is Tackling Plastic. Students are invited to investigate the issue of plastic pollution in our waterways. [Click here for more information or to register.](#)

National Geographic Online Educator Certification

Registration for the online Educator Certification program is live. [Click here to sign up for the fall cohort](#). Participants will complete all three phases of Educator Certification online.

The Satellites and Weather Teaching Box

This collection of educational resources is designed to help middle school students learn how satellites “see” the atmosphere and how they help with weather forecasting. Resources in the [teaching box](#) are sequenced to help build student understanding, align with Next Generation Science Standards, and have been reviewed by our team of educators. The [Satellites and Weather Teaching Box](#) is made possible thanks to support from [COSMIC](#) and [NOAA](#).

[UCAR Teaching Boxes](#) are collections of classroom-ready and standards-aligned activities, content, and multimedia that build student understanding of science, technology, engineering, and math. All materials are freely available online.

NEW: Screening Tools for 3D Science Assessment Tasks



As the science education community focuses on how to assess student learning under new science standards, the question of how to determine the quality of potential assessment tasks arises time and again. Today, Achieve is excited to release [two new tools](#) intended to assist educators in evaluating science assessment tasks to determine whether they are designed for three-dimensional science standards based on the *Framework for K-12 Science Education*, such as the Next Generation Science Standards.

The [Science Task Prescreen](#) is used to conduct a quick review of assessment tasks to identify any “red flags” - challenges commonly found in science assessment tasks - and determine whether a task is worth a more rigorous evaluation.



The [Science Task Screener](#) is used to take a deeper dive into evaluating science assessment tasks. The Screener is organized around four key criteria, each with a set of indicators to help reviewers determine whether the criteria are met and a set of response forms for gathering and analyzing evidence, providing suggestions for improvement, and rating the task. The Screener builds off the criteria in the [EQulP Rubric for Science](#) by more clearly specifying features for the assessment tasks embedded in lessons and units.

If you have questions or are interested in professional development opportunities related to evaluating science assessment tasks, please contact ngss@achieve.org. You can also learn more about the broader science professional learning services that Achieve offers, including support for science tasks, [here](#).



Miami University's Project Dragonfly

Miami University's Project Dragonfly is accepting applications for 2019 Earth Expeditions graduate courses that offer extraordinary experiences in 16 countries throughout the world. <http://EarthExpeditions.MiamiOH.edu>

Earth Expeditions can build toward the Global Field Program (GFP), a master's degree that combines summer field courses worldwide with web learning communities so that students can complete the GFP master's part-time from anywhere in the United States or abroad. <http://GFP.MiamiOH.edu>

Project Dragonfly also offers the Advanced Inquiry Program (AIP) master's degree that combines web instruction from Miami University with experiential learning and field study through several AIP Master Institutions in the U.S. Applications for Miami's 2019 cohorts are being accepted now with place-based experiences provided at zoos in Chicago, Cincinnati, Cleveland, Denver, New York, San Diego, Seattle, and our newest affiliate learning institution, St. Louis. <http://AIP.MiamiOH.edu>

Graduate tuition for all programs is greatly reduced because of support from Miami University.

Audubon Education Programs



Space is filling up for our newest teacher workshop: **Teach Wild: A Lesson on Marine Debris**. Also, due to popular demand, **Rescuing the Rainforest** will be returning in February 2019! For more information on all our teacher resources, please visit our [website](#).

Teach Wild: A Lesson on Marine Debris workshop offers hands-on learning experiences that introduce the topic of marine debris and its impacts on ocean wildlife and local communities. Workshop participants will investigate the effects of plastics on wildlife by using a micro-plastic filter apparatus and by examining the effects of micro-plastic consumption on sea birds.

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

Teach Wild: A Lesson on Marine Debris is brought to you thanks to a generous gift from Keep Louisiana Beautiful through the Healthy Communities Grant. Support is also provided by the Barataria-Terrebonne National Estuary Program's Education Opportunity Program.



Saturday, January 26, 2019 from 9:00 AM - 5:00 PM
 Audubon Aquarium of the Americas
 1 Canal Street
 New Orleans, LA 70130
 Register [here](#)

Saturday, February 16, 2019 from 9:00 AM - 5:00 PM
 Audubon Louisiana Nature Center
 11000 Lake Forest Blvd.
 New Orleans, LA 70127
 Register [here](#)

Cost: \$20.00 per participant (lunch will be provided)
Teacher benefits: 7 CLU, printed and electronic resources

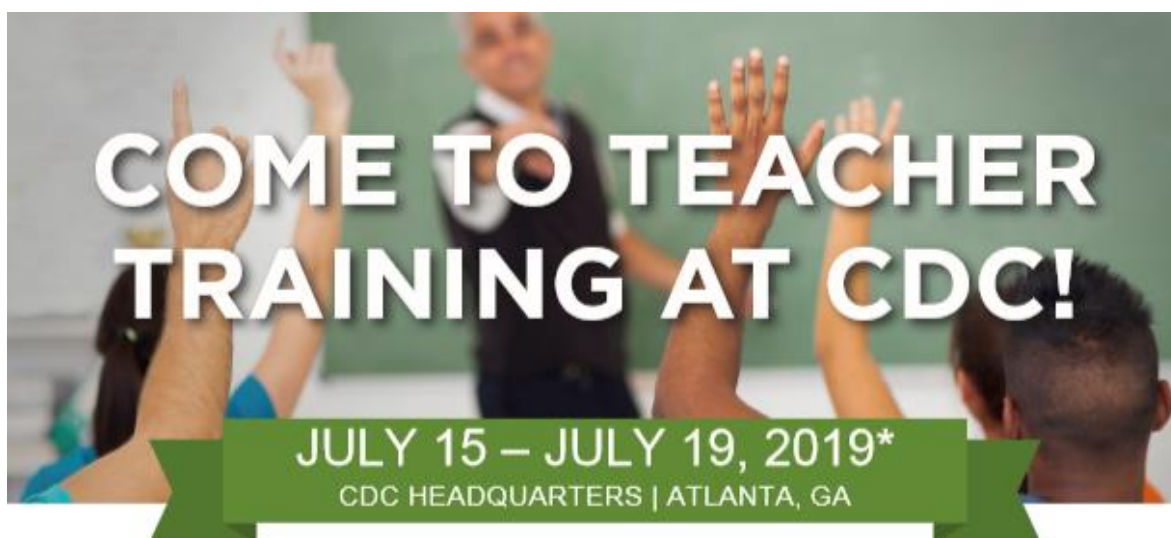


Save the date: **Rescuing the Rainforest** returns February 2019!

Saturday, February 2, 2019 from 9:00 AM - 3:00 PM
 Audubon Zoo
 6500 Magazine Street
 New Orleans, LA 70118
 Registration will be available soon!

Cost: \$45.00 per participant (lunch will be provided)

Rescuing the Rainforest is hosted in conjunction with the Stone Center for Latin American Studies at Tulane University.

CDC Science Ambassador

**BECOME A
2019 CDC SCIENCE
AMBASSADOR!**

- Attend a free** professional development course at CDC
- Participate in outbreak case studies with CDC Disease Detectives
- Tour CDC headquarters
- Collaborate with CDC scientists throughout the year to publish public health lesson plans
- Pilot lesson plans in your classroom
- Present at teacher conferences

Middle and high school STEM teachers

learn curriculum design and teaching strategies that engage students in math and science using real-life epidemiology and public health examples.

Submit your online application by:

January 15, 2019

www.cdc.gov/careerpaths/scienceambassador



APPLY EARLY!

FOR MORE INFORMATION:

Visit our website at www.cdc.gov/careerpaths/scienceambassador

E-mail us at scienceambassador@cdc.gov



**Centers for Disease
Control and Prevention**
Center for Surveillance, Epidemiology,
and Laboratory Services

** Dates are subject to change*

*** Attendance at the summer course is free.*

Participants are responsible for travel, food, and lodging.

CS259974-A

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

LSTA Membership / Change of Address Form

Membership Dues (Check one box.)

- ☐ 1 year membership \$15.00
☐ 3 year membership \$40.00
☐ Full Time Student - 1 year membership \$10.00



Name: _____

Email Address: _____

***** Email must be provided to receive correspondences from LSTA (including the LASER)*****

- ☐ Check here if you are interested in receiving the science E-blast!

Alternative Email Address: _____

Parish: _____ School: _____

Preferred Mailing Address (Check one box): ☐ Home ☐ Work ☐ School

Contact Phone: _____

*****Helpful when serving on committees (not required)*****

Print and mail form with dues to:

LSTA Membership
1627 Taylor Street
Kenner, LA 70062

ALL CHECKS SHOULD BE MADE PAYABLE TO: LSTA