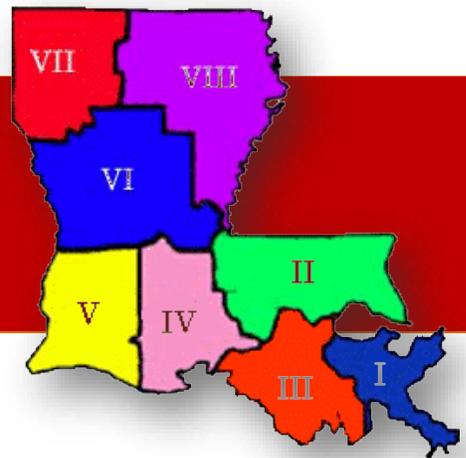


LSTA
NEWSLETTER

LASER



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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 2019 | Louisiana Science
Teachers Association

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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.

President's Message from Shauna LeBlanc

Hello Everyone!

I hope you all had a wonderful Thanksgiving Holiday and are looking forward to a fruitful holiday season.

I first want to congratulate and welcome all of the newly elected board members. ([Click here](#) to read more about the new board.) I would also like to thank all of the LSTA members for the opportunity to serve as your next LSTA President. I look forward to working with you and the board during the next two years.

Thank you to everyone who attended the LSTA/LATM joint conference in Baton Rouge on November 4-6th. We had an amazing turnout with almost 900 educators in attendance. This year's theme was STEMulate Your Mind. A big thank you goes to all of the committee members, board members, friends of LSTA and LATM, and especially the committee co-chairs (Patrice Mire and Trish Fos) who worked tirelessly to ensure the conference was a success. An additional special thanks goes to Dr. Beth Allan (President Elect of NSTA), Sheila Smith (NSTA Region VII Director), and LSTA guest speaker Page Keeley for attending and participating in the conference. Last, thank you to our conference sponsors (Carolina, Louisiana Art and Science Museum, McGraw Hill Education, and Visit Baton Rouge) who so graciously

donated time, meeting space, and/or items for the conference.

Next I would like to congratulate the **2019 LSTA Awardees**. Thank you for all you do for your students and for your continued efforts in effecting positive change for science education in Louisiana. Please consider nominating and/or applying next year for the 2020 LSTA awards that will be announced during the summer of 2020!

Now that the joint conference is over, we want to extend an invitation for you to submit a proposal to present at next year's NSTA Area Conference to be held at the New Orleans conference center on November 19-21, 2020. The deadline for session proposals is January 15, 2020. Click [here](#) for more information on submitting a proposal. "EnGulf Science Education" is the theme for the area conference and sessions will follow one of three strands: Sustaining the Big Blue Planet, Diving into Science Literacy, or Immersing in 3-Dimensional Learning.

Please consider nominating a K-6th grade science teacher for the Presidential Award for Excellence in Mathematics and Science Teaching. The PAEMST Awards are among the highest honors a teacher of math or science may receive. Find more information on the award as well as information for nominating a teacher at: <https://www.paemst.org/> The deadline to nominate a teacher is March 1, 2020.

As the year draws to a close, the LSTA Board and I would like to wish you a safe and peaceful holiday.

Yours truly,

Dr. Shauna LeBlanc



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, three individuals who work outside the traditional K-12 classroom setting, and three Travel Grant winners. The honorees were presented on November 4, 2019, during *STEMulate Your Mind*, the LATM/LSTA conference held in Baton Rouge. They are as follows:

LSTA Outstanding Middle School Science Teacher

Heather Warner

Caroline Dormon Junior High School
Woodworth, LA

LSTA John Dempsey Outstanding Secondary School Science Teacher

Blake Touchet

Abbeville High School
Abbeville, LA

LSTA Distinguished Informal Science Education Award

Jennifer "Murt" Conover

Associate Director of Education Outreach
Louisiana Universities Marine Consortium (LUMCON)
Chauvin, LA

LSTA Claudia Fowler Distinguished Service to Science Education Award

Missy Wooley

Lincoln Parish STEM Center Director
Ruston, LA

LSTA William Craig Outstanding University Educator Award

Dr. Pamela Blanchard

Associate Professor, LSU School of Education
Baton Rouge, LA

LSTA Travel Grants

Antresiya Brown

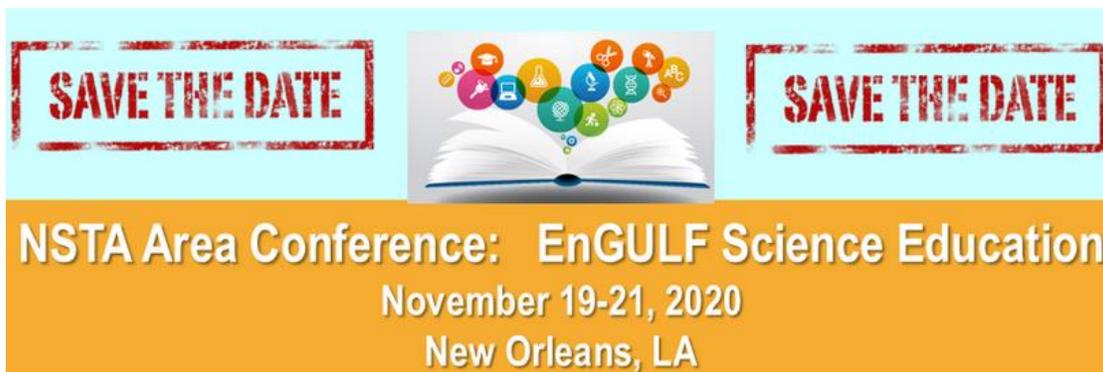
Summer Grove Elementary School
Shreveport, LA

Zara Collins

Eden Gardens Elementary Magnet School
Shreveport, LA

Adria Robertson-Martin

Franklin Junior High School
Franklin, LA



SAVE THE DATE

SAVE THE DATE

NSTA Area Conference: EnGULF Science Education
November 19-21, 2020
New Orleans, LA

LATM/LSTA Math and Science Conference STEMulate Your Mind

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



Pepper Davies



We are saddened to report the death of longtime LSTA member Pepper Davies. Those who knew her will remember her with the fondest of memories. Pepper taught earth science in Jefferson Parish and Orleans Parish for many years, her last assignment being at McMain Magnet School where she taught in the gifted and talented program. She was recognized as Teacher of the Year in Orleans Parish and received the LSTA Middle School Teacher of the Year Award. In 1998, Pepper and her husband moved to Houston, Texas to be near their two daughters and grandchildren. Pepper was 83. You can find a wonderful obituary written by her daughters at www.legacy.com/obituaries/name/hannelore-davies-obituary?pid=192797227.

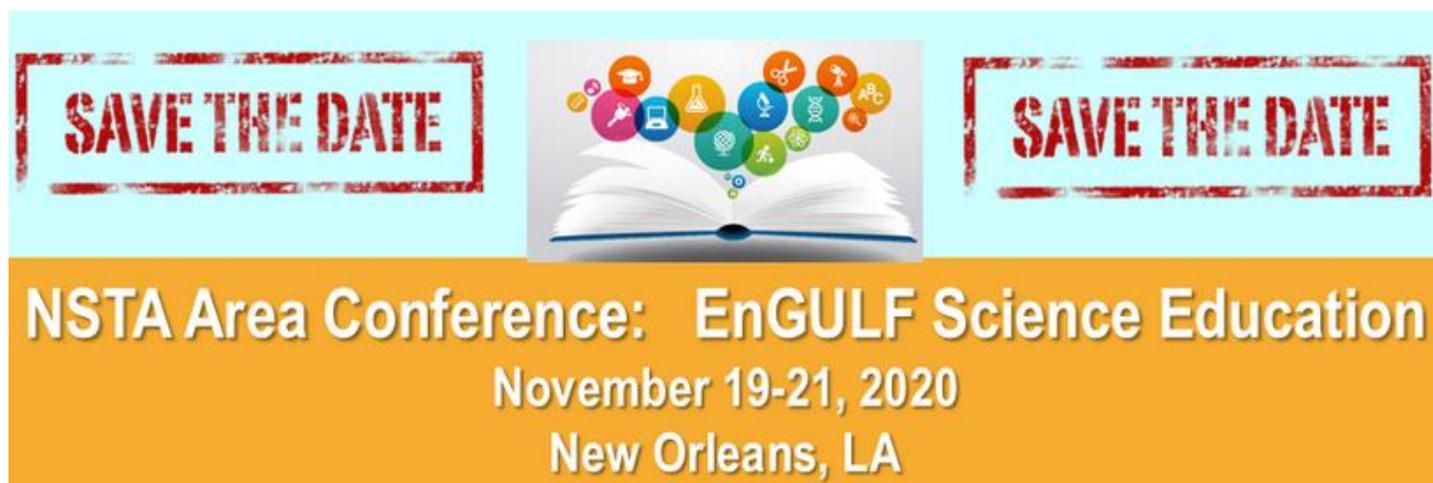
New Orleans NSTA Area Conference November 19-21, 2020

Presenting at New Orleans November 19-21, 2020 NSTA Conference? The theme for the 2020 area conference is "EnGULF Science Education" The three conference strands are:

- Sustaining the Big Blue Planet
- Diving into Science Literacy
- Immersing in 3-Dimensional Learning

NSTA is currently accepting proposals for the New Orleans Area Conference Find the information on the conference strands and online submission form at:

<https://www.nsta.org/conferences/sessions/meetingsacceptingabstracts.aspx>



SAVE THE DATE

NSTA Area Conference: EnGULF Science Education
November 19-21, 2020
New Orleans, LA

Regional News

✦ Region I ✦

[Tulane University Center for K-12 STEM Education](#) Hosted over 300 Middle School Students and 53 Teachers this Fall with Sponsorship from Capital One, The Joe W. and Dorothy Dorsett Brown Foundation, Shell, and Chevron!! The fourteenth [Girls in STEM at Tulane](#) (GiST) event was held on November 16th, and the seventh [Boys At Tulane in STEM](#)



(BATS) event was held on October 5th. For the third year, running alongside both the boys and girls events were the Center for K-12 Education's teachers' experiences. Teachers who participated received a \$100 stipend, curriculum resources aligned to the Louisiana Science Standards, supplies needed to lead the workshops in their own classrooms, and the opportunity to meet and learn with teachers from across southern Louisiana. Tulane University's GiST and BATS Programs provide fifth through seventh grade students with the opportunity to meet and work with undergraduate, graduate, faculty, and professional role models in STEM fields. GiST leaders and volunteers are primarily women in STEM

who emphasize to young girls the opportunities available to them. Workshops this semester included photovoltaics, the human eye, making earthquakes, building cards to the sky, and growing algae. This

spring, BATS will be held on March 14th and GiST will be held on April 18th. We are looking forward to our spring events and hope that you and your students will join us! Check out our website at <http://k12stem.tulane.edu> for more information. Please contact us at k12stem@tulane.edu if you have any questions or if you would like to bring a group of your students to BATS and/or GiST!



Jean May-Brett attended the Gulf Coast Ocean Observing System's Outreach and Education Council annual meeting in Pensacola, Florida. Participants identified GCOOS contributions to the 2020 Embrace the Gulf campaign led by the Gulf of Mexico Alliance (GOMA); learned about the GCOOS red-tide detection tool, HABscope, and how the "All Things Beaches" product GCOOS is developing. The Council also discussed near-term priorities and opportunities for outreach and education efforts. Also attending from LA was LSU Sea Grant's **Diane Lindsted**.

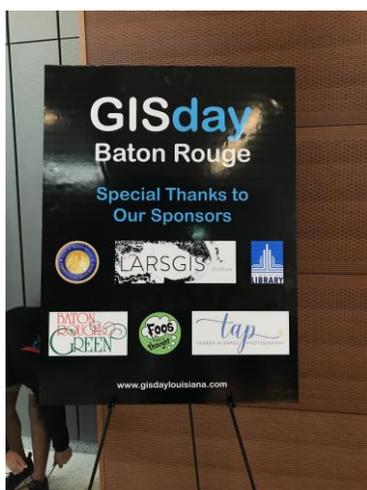
Please submit news for Region 1 to **Casey McMann** at cmcmann@ppsb.org.

✦ Region II ✦



Seventh grade students in **Pamela Robinson's** class at **IDEA Innovation** participated in an Egg Drop Challenge to celebrate National STEAM Day on November 8, 2019. Students worked together to solve the design problem and developed a deeper understanding of the forces involved when developing packaging.

Twenty 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.



Educators enjoyed **Exploring Astronomy** at the **Louisiana Art & Science Museum** during the 2019 LSTA & LATM conference. Astronomy-focused hands-on activities were facilitated by the Museum's Education Team, including an informative presentation led by NASA Solar System Ambassador, **Linda Gauthier**. In the Irene W. Pennington Planetarium, special showings of *Ventures through Our Solar System* and *Apollo 11: First Steps Edition* provided an immersive, educational experience. **LASM** was also pleased to host the annual **LSTA & LATM Outstanding Educator Awards** during the conference. Congratulations to these amazing and inspirational educators! Special thanks to our partners at LSTA & LATM for another fantastic conference and for your support of educators statewide.



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

✦ Region III ✦

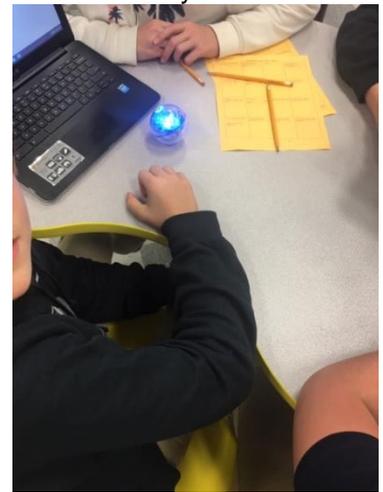
Please submit news for Region 3 to **Wendy Delgado** at wendy_delgado@houmachristianschool.com.

✦ Region IV ✦



Recently, a group of 8th graders from Acadia Parish were able to participate in a variety of STEM activities while visiting the Acadia Parish District STEM Lab in Crowley, LA. While under direction of their teachers, **Mrs. J. Elliott** and **Mrs. J. Privette**, the students were able to integrate a virtual reality experience tying in their current unit of study on Natural Disasters. Using the virtual reality headsets the students explored various land formations including canyons, volcanoes and caverns. They were truly engaged as the VR experience was able to make the locations come to life for them. Students then were able to utilize Sphero robots and tablets to work with coding. For

many, this was their first experience with robotics, and several are interested in working further with coding. Other activities that students were able to participate in included an incubator design challenge for an upcoming unit, electric circuitry, and math application.



Mrs. Elliott and **Mrs. Privette** did a fantastic job exposing their students to technology that can bring their curriculum to life. This experience enabled students to critically think and solve real world problems in the fields of Science, Technology, Engineering, and Math.



Please submit news for Region 4 to **Annis Barras** at kabarras@iberia.k12.la.us.

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

✦ **Region V** ✦

Please submit news for Region 5 to **Vincent Caldwell** at vincent.cadwell@cpsb.org.

✦ **Region VI** ✦

Tioga Junior High combined Earth science and the law of conservation of energy in a creative, hands-on lab activity. **Janice Williams's** 8th grade students used Starburst candy to create models of the rock cycle, describe the cycling of Earth's materials, and simulate the flow of energy that drives the process.



Freshmen at Monterey High School developed skills needed for measuring liquids with a graduated cylinder, practiced using the metric system to measure volume in milliliters, and practiced the proper use of science lab equipment during their Rainbow Lab. The end resulted in ROYGBIV with specific volumes for each color.

Crystal McLin's 6th graders at Rosenthal Montessori used the engineer design process to build cars that have safety devices to protect an egg during a car crash. Students built

and tested their cars, then collected data to compare and contrast which safety designs were the most effective.



Please submit news for Region 6 to **Heather Warner** at heather.warner@rpsb.us.

✦ Region VII ✦

Please submit news for Region 7 to **Stefani Farris** at Shfarris@caddoschools.org.

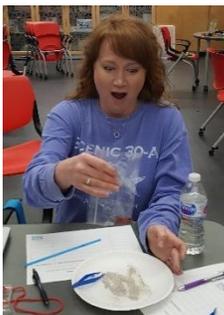
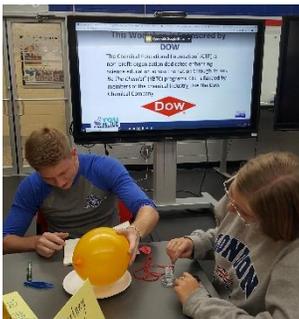
✦ Region VIII ✦

Lincoln Parish STEM Center Director **Missy Wooley** received a \$1000 grant from Entergy prior to hosting the center's Grand Opening Celebration in collaboration with the Ruston-Lincoln Chamber of Commerce.



Cathi Cox-Boniol joined **William Bandy** (Choudrant High School), **Randall Elliott** (Ruston High School), and **Felicia Dunbar** (Simsboro High School) in supporting five different Lincoln Parish student teams at the cyber workshop hosted by the College of Engineering and Science on the Louisiana Tech University campus.

Cathi wrapped up a five-workshop Essential Elements series for the Chemical Educational Foundation while immersed in a 12-session Safety Micro-Badging Series through the STEM Center for Teaching and Learning within the International Technology and Engineering Educators Association.



Cathi and Missy presented two different sessions at the joint LSTA/LATM conference held in Baton Rouge before Missy received the Claudia Fowler Distinguished Service to Science Education Award during a special LSTA ceremony.



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

Cathi returned to Baton Rouge to join **Dr. Lindsey Vincent** (Louisiana Tech University SciTEC) in facilitating a regional stakeholders meeting during the LaSTEM Summit.



Dr. Bill Deese (Louisiana Tech University Department of Chemistry) brought one of his highly engaging demonstration shows to the Lincoln Parish STEM Center, inspiring and delighting a capacity crowd of elementary students. Bill will be instrumental in the presentation of the Lincoln Parish “You Be the Chemist” Challenge, sponsored by DOW, as Cathi and Missy welcome 40 students in grades 5-8 that qualified from the more than 1300 students that took the challenge qualifier.



Please submit news to your region 8 representative, **Garrah Leshe** at leshe@opsb.net.

SAVE THE DATE



SAVE THE DATE

NSTA Area Conference: EnGULF Science Education

November 19-21, 2020
New Orleans, LA

Professional Development Opportunities and Resources

Science Leaders' Corner

Are you a district science supervisor, science content specialist, science master teacher, Teacher Leader or science coach? If so consider becoming a member of LASL, the affiliate of the National Science Education Leaders Association (NSELA).

To receive more information on the association contact **Julie DuBois** at judubois@iberia.k12.la.us.

STEMposium

The STEMposium is coming to New Orleans January 23-24, 2020. This event will be held at the brand new World War II Higgins Hotel. The STEMposium is for school and district leaders who want to create a sustainable ecosystem for STEM education. Energize your local initiative. Dr. Rodger Bybee will be the lead presenter for this event to advance STEM education. Dr. Bybee was the Executive Director of BSCS for many years and is widely identified for the 5-E Instructional Model. New Orleans is one of only three sites for this event. <https://www.stemscopes.com/stemposium>

Join the **STEM Leadership Network** <https://stemtlnet.org/>

Teacher leaders, aspiring teacher leaders, administrators and researchers are invited to join, interact and connect with the STEM Teacher Leadership Network, a new virtual learning community funded by the National Science Foundation that will help members explore topics related to STEM leadership. Teachers will have access to the free networking tools, resources, and events provided throughout this site, and be able to share their paths, challenges, strategies, opportunities, events, and resources as teacher leaders with one another. In addition, each month the network will focus on a specific theme and will offer free resources such as videos, blogs, an interactive online expert panel, and a month-long facilitated discussion with teacher leaders and content experts.

Join us in the month of December for the first STEM Teacher Leadership Theme of the Month where we focus on the theme "[Leading without Leaving the Classroom](#)". Be sure to read the introductory blog post, view the Expert Panel, post to the month-long online discussion and browse related resources and videos.

Nominate a STEM teacher leader for the **100Kin10 Teacher Forum**

The [100Kin10 Teacher Forum](#) was launched to hear directly from STEM teachers about what's happening "on the ground" in classrooms and schools across the country. Members point us to real-time insights by bringing to the surface the ideas, observations, and insights that STEM teachers are experiencing daily.

<https://stemtlnet.org/opportunities/nominate-stem-teacher-leader-100kin10-teacher-forum>

Registration for Toshiba/NSTA ExploraVision Is Open

Student teams compete in groups based on their grade levels: primary (K–3), upper elementary (4–6), middle level (7–9) and high school (10–12). There are two finalist phases to the competition—regional and national. In the regional phase, the 24 winning teams from six regions across the United States and Canada will receive a Toshiba-branded laptop for their school, and each member of the team will receive additional prizes.

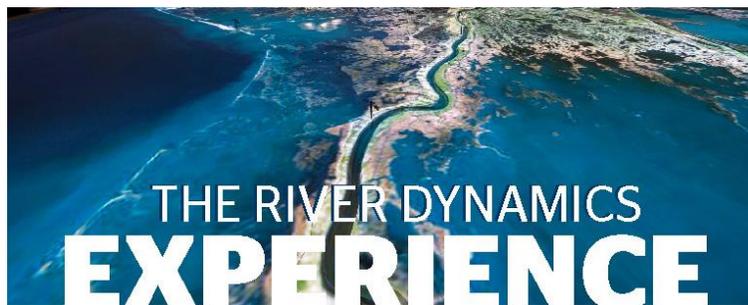
Registration for Toshiba/NSTA ExploraVision Is Open

Registration is now open for the Toshiba/NSTA ExploraVision competition, launching the 28th year of the world's largest K-12 science competition! Student participants will have a chance to win a number of great prizes, including \$10,000 U.S. Series EE Saving Bonds (at maturity). Learn more and register by February 10, 2020.

<https://www.exploravision.org/>

Louisiana Art & Science Museum

LOUISIANA
**ART &
SCIENCE**
MUSEUM



Register Now for *The River Dynamics Experience*, a Free Program

Now is the time for eighth-grade teachers to schedule *The River Dynamics Experience*. This free program includes a joint visit to the LSU Center for River Studies (CRS) and the Louisiana Art & Science Museum.

On their tour of the CRS, these students will explore a 3-dimensional model of the lower 190 miles of the Mississippi River, one of the most technologically-advanced models in existence. At the Museum, the students will collaboratively design solutions to real-world environmental challenges by engaging with a state-of-the-art stream table and will view a related large-screen educational movie. These activities are also aligned with the Louisiana Student Standards for Science.



Through this innovative partnership with the Coastal Protection and Restoration Authority (CPRA), this learning opportunity is available **free-of-charge to 8th-grade students on a first-come, first-served basis**. Please email reservations@lasm.org or call **225.344.5272 x 142** to schedule your visit.

Learn more at lasm.org/ap or [click here](#) for a flyer about *The River Dynamics Experience*!

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 view the link below 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.

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>

New Item Sets added to EAGLE

New item sets have been added to the EAGLE Passage and Item Information section of the appendix of [A Teacher's Guide to LEAP 360](#). As new content is added to EAGLE throughout the school year, it will be announced through the Teacher Leader newsletter and added to the Teacher's Guide to LEAP 360 Appendix.

Please visit the [LEAP 360](#) page to find out more information about creating tests, adding classes, etc. in Eagle

Scholarship Opportunity for Middle School Science Teachers

We need your help to share a scholarship opportunity for middle school science teachers affiliated with your organization. Applications are now being accepted for the 2020 class of National STEM Scholars, a program designed specifically for middle school teachers inspiring the next generation of STEM (science, technology, engineering and math) pioneers nationwide. **Please forward! The deadline is February 1st.**

The National Stem Cell Foundation (NSCF) partners with the Carol Martin Gatton Academy of Science and Mathematics at Western Kentucky University (WKU) to fund 10 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 will 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 (the 2018 speaker was Dr. Eric Mazur of Harvard

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

University, the 2019 speaker was Dr. John Medina – author of Brain Rules) 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.

Over 40 Scholars have graduated from the National STEM Scholar Program. Each scholarship recipient receives the following:

- **Advanced education and leadership training on the campus of WKU from May 31 - June 6, 2020. All expenses – travel, lodging, meals – are included**
- **A notebook/tablet (Chromebook or similar) to facilitate ongoing collaboration**
- **A credit of up to \$1,500 for technology and supplies to implement a classroom Challenge Project**
- **Sponsored attendance at the National Science Teacher Association (NSTA) Conference in March/April, 2021. All expenses – registration, travel, lodging, meals – are included**
- **Year-long mentorship and support provided by Gatton Academy faculty**

Applications are open now – [click here](#) to apply. The deadline is February 1, 2020.

[Click here](#) to learn more about the National Stem Cell Foundation.

Assessment Literacy Modules

Here is a newly developed assessment literacy digital workbook that some may be interested in taking a look at...

<http://www.scillsspartners.org/scillss-resources/>

One needs to scroll about 3/4 the way down the page to find...

Digital Workbook on Educational Assessment Design and Evaluation: Creating and Evaluating Effective Educational Assessments

Chapter 1: Purposes and Uses of Assessment Scores, Validity, Validity Questions ([Adobe Connect Digital Workbook](#), [PPT](#), [Script](#), [MP3](#))

- Chapter 1.1 Assessment Purposes and Uses
- Chapter 1.2 Validity as the Key Principle of Assessment Quality
- Chapter 1.3 Four Validity Questions to Guide Assessment Development and Evaluation
- Chapter 1.4 Summary and Next Steps

Chapter 2: Construct Coherence ([Adobe Connect Digital Workbook](#), [PPT](#), [Script](#), [MP3](#))

- Chapter 2.1 Review of Key Concepts from Chapter 1
- Chapter 2.2 The Concept of Construct Coherence

Chapter 3: Comparability ([Adobe Connect Digital Workbook](#), [PPT](#), [Script](#), [MP3](#))

- Chapter 3.1 Review of Key Concepts from Chapters 1 and 2
 - Chapter 3.2 What is Comparability and Why is it Important?
 - Chapter 3.3 What is Reliability/Precision and Why is it Important?
 - Chapter 3.4 Validity Questions Related to Comparability and Reliability/Precision
-

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

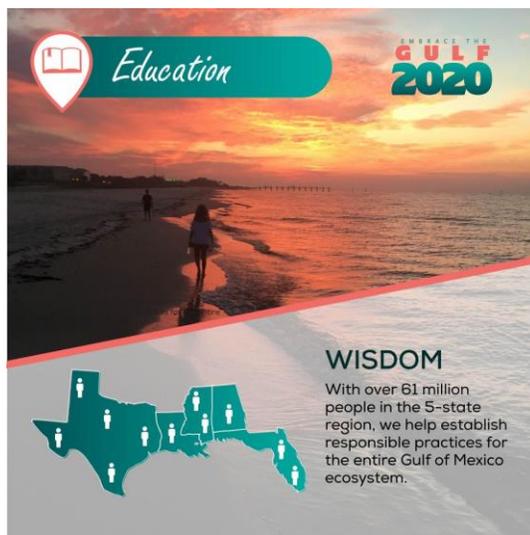
Earth Expeditions can build toward the Global Field Program (GFP), a master's degree that combines summer field courses worldwide with web learning communities so that students can complete the GFP master's part-time from anywhere in the United States or abroad. <http://GFP.MiamiOH.edu>

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 2020 cohorts are being accepted now with place-based experiences provided at zoos and botanical gardens in Chicago, Cincinnati, Cleveland, Denver, New York, San Diego, Seattle, and St. Louis. New for 2020: residents of the Jacksonville, Florida, area can study at Jacksonville Zoo and Gardens, AIP's newest Master Institution, and earn Miami's AIP master's degree. <http://AIP.MiamiOH.edu>

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

2020 Embrace the Gulf

The Gulf of Mexico provides food, shelter, protection, security, energy, habitat, recreation, transportation, and navigation – playing an important role in our communities, states, region, and nation. To highlight the value and the vitality of the Gulf of Mexico region, the Gulf of Mexico Alliance conceived an awareness campaign “Embrace the Gulf” for the entire year 2020. Louisiana members of the working group are BTNEP's own Susan and Alma.



Educational Facility Planning

The MSBA recognizes the importance of educational programming, especially as it relates to the effective planning, design, and construction of adaptable school facilities. A comprehensive educational program will help inform school designs that are responsive to current teaching and learning practices, while providing flexibility to accommodate future changes in learning environments and educational delivery methods during the useful life of a school facility. To support districts and consultants in the exploration, development, and evaluation of options for proposed projects, the MSBA offers the following resources.

[Educational Program Requirements](#)

[Science Laboratories and STE Learning Spaces Guidelines - NEW!](#)

[Assembly Space Adjacencies in Elementary and Middle Schools](#)

[Break-Out Spaces in Elementary Schools](#)

FREE Weather Curriculum for Middle School Students

Developed to directly address Next Generation Science Standards, this [FREE five-week curriculum unit](#) is designed to help middle school students understand weather at local, regional, and global scales.

A Clean Energy Film and Curriculum FREE to Teachers Grades 6-12

Watch as Robert Redford's son James Redford explores the factors driving the transition to clean energy in his feature documentary HAPPENING. To further engage students, the Redford Center created TEACHING HAPPENING, an interdisciplinary, modular curriculum developed to work alongside HAPPENING. [Click here to watch a short trailer.](#)

Free to teachers, the classroom version of the film runs 50 minutes and the curriculum is aligned with national standards for grades 6-12 in Science and English. To access your **free** HAPPENING streaming link and educational curriculum, [click here](#)



NSTA Area Conference: EnGULF Science Education
November 19-21, 2020
New Orleans, LA

Louisiana History Day at The National WWII Museum



LOUISIANA HISTORY DAY
STATE AFFILIATE OF NATIONAL HISTORY DAY

National History Day is a national research contest in which students in grades 6–12 create historical projects based on an annual theme. Students select their own local, regional, national, or global topics and explore both primary and secondary sources, then present their findings in original papers, websites, exhibits, performances, or documentaries at regional, state, and national competitions.

6,000 students compete at the national competition each year—an experience they’ll never forget!

THE 2020 THEME: “BREAKING BARRIERS IN HISTORY”

LOUISIANA CONTEST DATES

FEBRUARY 22
Monroe Regional Competition
Chennault Aviation and Military Museum

FEBRUARY 29
Shreveport Regional Competition
Louisiana State Exhibit Museum

MARCH 4
Baton Rouge Regional Competition
West Baton Rouge Museum

MARCH 7
Natchitoches Regional Competition
Louisiana Sports Hall of Fame and Northwest Louisiana History Museum

MARCH 14
New Orleans Regional Competition
The National WWII Museum

MARCH 21
Lafayette Regional Competition
Vermilionville Living History and Folk Life Park

MARCH 28
Louisiana State Competition
The National WWII Museum

JUNE 14-18
National Competition
University of Maryland College Park, Maryland

LEARN MORE:
LOUISIANAHISTORYDAY.ORG
For more information, call 504-528-1944 x 463 or email: historyday@nationalww2museum.org




Nurdle Patrol

The Nurdle Patrol is a citizen science project lead by the Mission-Aransas National Estuarine Research Reserve at the University of Texas Marine Science Institute in Port Aransas, Texas. They are looking to gather information about where nurdles are located across Texas and the rest of the Gulf of Mexico, remove the nurdles from the environment, and create awareness about the nurdle issue.

If you want to participate in collecting data there are instructions and [a training video on their website](#). For more information visit <https://missionaransas.org/nurdle-patrol> and/or contact Jace with the information below.

Jace Tunnell

Director, Mission-Aransas National Estuarine Research Reserve
 University of Texas Marine Science Institute
 750 Channel View Drive, Port Aransas, TX 78373
 Office: 361-749-3046
 Cell: 361-244-8665
 Email: Jace.Tunnell@austin.utexas.edu
www.missionaransas.org



Full -time Marine Educator Position at LUMCON

The Louisiana Universities Marine Consortium ([LUMCON](#)) is seeking to fill a full-time position within Louisiana's largest informal marine education program. The position is based at the DeFelice Marine Center in Cocodrie, Louisiana. LUMCON's purpose is to enable the next generation of marine scientists and ocean literate citizens. We will reach this goal by providing meaningful and relevant place-base and skill-based experiences for all visitors, while aiming to have significant impacts on Louisiana's diverse citizenry including those populations underrepresented and underserved in marine science.

The role of the Marine Education Associate/Assistant is to support, facilitate, and ensure high quality experiences for all visitors within the LUMCON Marine Education Program. This includes leading field, lab, and classroom activities for a wide variety of audiences at the DeFelice Marine Center and off-site field locations.

[CLICK HERE](#) for more position details and information.

To apply send

- letter of interest,
- curriculum vitae
- and three relevant references

to Murt Conover, LUMCON Associate Director of Education & Outreach
mconover@lumcon.edu

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.

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United States Biolympiad Information

What is the USA Biolympiad

Over 100,000 high school students, representing 47 states, have participated in the annual USA Biolympiad (USABO) since 2002 when the competition was inaugurated. In 2019 nearly 10,000 students registered to participate in this prestigious opportunity. The USABO mission concentrates on stimulating young scholars' intellectual curiosity and developing their critical thinking in laboratory skills and biological reasoning to propel them to careers of excellence and leadership in science and technology.

The USA Biolympiad is a three-tier competition that demands the very best of students in biology theoretical and laboratory knowledge. The top four students from this competition represent the USA at the International Biology Olympiad (IBO) as the USA Biolympiad Team. Each member of USA Biolympiad Team has medaled since the USA first competed in the 2003 IBO.

2019 International Biology Olympiad Opening Ceremony, Szeged Hungary



Who Participates

CEE encourages teachers and schools to register grades 9 to 12 biology students for the Open Exam. AP courses are not required. The registration fee is \$95 per school regardless of the number of student participants.

The Competition

USABO Open Exam

A nationwide 50-minute exam open to any U.S. high school biology student in a registered school. The exam is multiple-choice and administered in class.

USABO Semifinals

The top 10% of Open Exam participants are eligible to take the Semifinal Exam. The exam consists of multiple-choice, short-answer, multiple true/false, and free response questions and is administered in class.

USABO National Finals

The top 20 Semifinalists are invited to attend the USABO National Finals held on the campus of a distinguished university. The National Finals consists of two weeks of intensive theoretical and practical tutorials where students work with leading biologists.

At the conclusion of Finals, the students take two exams—a practical and theoretical—to compete for one of the four places on the USA Biolympiad Team.

International Biology Olympiad

The four gold medalists from the National Finals will represent the United States at the International Biology Olympiad (IBO) in Nagasaki, Japan, July 3 to 11, 2020.



Kujukushima Bay, Nagasaki, Japan

Teacher Resource Center

The Teacher Resource Center (TRC) is an online set of tools for teachers. It includes recommended readings, separate study guides with web links for each of the seven IBO focus areas, practice questions, previous exams, competition guidelines, checklists, access to the previous exams, results of the exams, histograms of score distribution, and facts. The TRC assists teachers to provide students with the information required to reach the "Gold Standard of Excellence."

Registration for schools: September 23 to January 14, 2020 at the CEE website at www.cee.org.



The 20 National Finalists, 2019

"The USABO Finals was a challenging and intense. The lectures constantly kept me on my toes; and the problem sets kept me awake each night. My best memories are the friends I made. At the IBO in Hungary, we got to meet people from around the world who shared our passion for biology. The Biolympiad is an experience I'll never forget." *Suhayb Choudhri, 2019 USABO National Finals Gold Medalist and 2019 IBO Gold Medalist.*

"Attending the USABO National Finals was the experience of a lifetime. From engaging lectures by renowned professors to labs covering every thinkable field of biology, I learned in several weeks more science than I thought I ever could! However, meeting other Finalists with unique backgrounds, perspectives, and philosophies, both enriched my Finals' experience and ensured my lifelong passion for biology." *Henry Iben, 2019 USABO National Finals Gold Medalist and 2019 IBO Silver Medalist.*

"It's incredible how many unforgettable experiences one can have in just two weeks. The sheer volume of material and laboratory techniques that we learned at the National Finals proved challenging and exhausting, but we put in the effort because our new friends were there to support us along the way. When so many people in one place all share the same passion for biology, we all come out with knowledge and memories that last a lifetime." *Christopher Wang, 2019 USABO Gold Medalist and 2019 IBO Gold Medalist.*

"The USABO National Finals and the IBO were truly once-in-a-lifetime experiences. I had the unique opportunity to meet other motivated students passionate about biology and gain exposure to a variety of extremely fascinating topics within a competitive setting that pushed me to apply what I'd learned. I will always cherish the memories I've made and knowledge I've gained through the USABO program." *Jason Zhang, 2019 USABO National Finals Gold Medalist and 2019 IBO Silver Medalist.*



About the Center for Excellence in Education

Mission Statement

The Center's mission is to nurture high school and university scholars to careers of excellence and leadership in science, technology, engineering and mathematics, and to encourage collaboration between and among leaders in the global community.

History

The Center for Excellence in Education (CEE) was founded in 1983 by the late Admiral H. G. Rickover, Father of the nuclear navy and of civilian uses of nuclear power, and Joann P. DiGennaro, CEE's President. They recognized that nurturing careers of excellence and leadership in science and technology in young scholars was an essential investment in our nation's global future. The Center's programs help keep the U.S. competitive in science and technology, and to further international collaboration among leaders of the world. CEE challenges students and assists them on a long-term basis to become the creators, inventors, scientists, and leaders of the 21st century.

CEE Programs

Admiral Rickover and Ms. DiGennaro met with educators around the world to create a unique educational experience for students of science, technology, engineering, and math (STEM) and launched the Research Science Institute (RSI) in 1984. The program is collaboratively sponsored with MIT.

CEE launched the USA Biolympiad (USABO) in 2002, the premier competition in biology for high school students. The USA first participated the International Biology Olympiad (IBO) in 2003.

The CEE's Teacher Enrichment Program (TEP) provides opportunities for underserved rural and urban middle school and high school STEM teachers to connect with leading experts from industry and academia to explore cutting-edge research and development and make meaningful professional links that directly benefit them and their students.

RSI, USABO, and TEP are cost-free to all participants.

Contact Information

Center for Excellence in Education (CEE)
8201 Greensboro Drive, Suite 215
McLean, VA 22102

For registration information for all CEE programs:
Research Science Institute (RSI)
Teacher Enhancement Program (TEP)
USA Biolympiad (USABO)

Visit CEE at www.cee.org    

For more information on the USABO, contact
Kevin Andersen, Manager of the USABO
O: 703.448.9062 x 231
F: 703.448.9068
E: kandersen@cee.org

USA Biolympiad Sponsors



Excellence

Center for Excellence in Education

Proud Sponsor of the

USA Biolympiad
2020



2019 USA Biolympiad Team Members

Jason Zhang, Christopher Wang, Henry Shen, Subas Chundri

"The USA Biolympiad encourages excellence in science education. It propels American high school students and their teachers to reach beyond that provided in the classroom."

*Joann P. DiGennaro, President
Center for Excellence in Education*

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STEMposium

Sustainable Ecosystems for STEM Education



STEM's Most Renowned Speakers

Speakers Dr. Rodger Bybee and Peter McLaren have made significant contributions to science education for 40+ years. Their insights, along with breakout sessions with experts, will provide compelling and substantial support for school and district leaders. Joined by Dr. Kenn Heydrick and local STEM leaders, each STEMposium guides you on how to transform your school into a 21st-century STEM campus.

Be a part of this STEM movement. Visit STEMposium.com



Dr. Roger Bybee Mr. Peter McLaren Dr. Kenn Heydrick

STEMposiums focus on today's STEM issues facing the classroom—no punches are pulled, no sugarcoating the issue, and no platitudes on how to effect change. With over 40+ years experience, STEMposiums speakers get the heart of the issue to help you navigate the current STEM educational landscape in your school and learn how to push it forward, higher, and further than you ever thought possible.

**Register at
STEMposium.com**

New Orleans

January 23-24, 2020

Higgins Hilton Hotel

National WWII Museum

**\$125 registration for all materials/
meals**

**\$100 registration for teams of 3-5
people**

**Visit www.stemposium.com for full
agenda and registration**

Infinity Science Center Teacher Workshops

The Environmental Effects of World Population

Saturday, January 25, 2020

9:00 a.m. - 2:30 p.m.

Cost: FREE

Target Grades: K-8

Foster environmental awareness among your students. Present classroom activities that promote global citizenship and spark students' interest in environmental issues while also building skill sets in scientific inquiry, data analysis, and critical thinking. This professional development will target K-8. Teachers will leave with access to all of the hands-on and demonstration activities needed to use in the classroom. This professional development is provided free by grant funding and carries .5 CEU's. Teachers are responsible for the CEU fee of \$20 made payable to GCEIC. Lunch is on your own. You may bring a lunch or purchase a lunch from INFINITY's Café. (Minimum number of attendees 10)

[Click here](#) to register.

Science Buffet

February 21, 2020

9:00 a.m. - 2:30 p.m.

Cost: FREE

Target Grades: K-12

Fill your plate with a little of this and a little of that! This training will offer a smorgasbord of science activities to tease the palates of your learners no matter what grade level. We will show you engaging demonstrations and hands on activities that you can use in your classroom. You will leave with plenty of resources and your favorite meal from the buffet for you classroom. This professional development is provided free by grant funding and carries .5 CEU's. Teachers are responsible for the CEU fee of \$20 made payable to GCEIC. Lunch is on your own. You may bring a lunch or purchase a lunch from INFINITY's Café. (Opened to the first 15 attendees) No waiting list.

[Click here](#) to register.

Aviation - Wright Brothers to Wernher von Braun

Friday, March 27, 2020

9:00 a.m. - 2:30 p.m.

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

Cost: FREE

Target Grades: K-10

Through this workshop, teachers will gain the knowledge and resources in aviation to help students understand the science, technology, and applications of flight. Teachers will leave with access to resources gathered from multiple experts including the Civil Air Patrol. You will have what it takes to guide your students to a deeper appreciation of physics, weather, and engineering concepts. This professional development is provided free by grant funding and carries .5 CEU's. Teachers are responsible for the CEU's fee of \$20 made payable to GCEIC. Lunch is on your own. You may bring a lunch or purchase a lunch from INFINITY's Café. (Open to the first 15 attendees) No waiting list.



STEMposium
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Nov. 18-19 | Dec. 10-11 | Jan. 23-24

stemposium.com



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
 Attn: Nathan Cotten
 231 Bart Street
 Bourg, LA 70343

ALL CHECKS SHOULD BE MADE PAYABLE TO: LSTA