



## A Note from Dr. Gaylor



Greetings Science Shareholders,

The 2022-2023 school year is off to an exciting start. The MDE reported MAAP results for the 2021-2022 school year, and these results showed science proficiency at 55.9%. This is better than pre-pandemic performance. I want to thank you for persevering through some very tough and difficult times. However, there is still a lot of work to do. As we continue to press forward, I want to encourage each of you to keep science literacy in focus. Our vision is to see a more scientifically literate Mississippi. We commit ourselves to this vision by maintaining confidence in our content knowledge and trends, keeping science teaching and learning current and relevant, building and nurturing supportive networks and relationships, and facilitating conceptual sense-making through the three-dimensional approach to science education and understanding. I encourage you all to be reflective in your practice to become your best self, and as always, I am here to provide you with support and assistance as best I can.

Yours in science,

*Dr. Kevin L. Gaylor*

Your State K-12 Science Content Director

## Upcoming Events and Other Science News

### START PREPARING FOR MS SCIENCE AND ENGINEERING FAIRS

Science fair enthusiasts, it is time to start planning for the MS Science and Engineering Fair State Science Fair. This time moves quickly, so, let's keep up. Contact your Regional Fair Directors for any training they may be offering. [Visit your Regional Fair Site](#) to learn more about important changes, deadlines, and dates.

### THE PRESIDENTIAL AWARDS FOR EXCELLENCE IN MATHEMATICS AND SCIENCE TEACHING

Do you know of an awesome science teacher? Do you think you are an awesome science teacher? It is now time to nominate 7-12 science teachers for the Presidential Awards for Excellence in Mathematics and Science Teaching for the 2022-2023 school term. This award is the highest award a K-12 science teacher in our nation can receive. National recognition, serving on national policy-making committees, and a ten-thousand-dollar stipend are just a few perks. Take a minute to nominate a science teacher that you think is great. Learn more about the [PAEMST](#) and hear from one of our past [MS National Awardees](#). For more information, contact your State Science PAEMST Coordinator, [Dr. Kevin L. Gaylor](#)

### MISSISSIPPI SCIENCE TEACHERS' ASSOCIATION FALL CONFERENCE

The Mississippi Science Teachers Association will host its 2022 Fall Conference from October 23 – 25, 2022, at the Golden Nugget Hotel and Casino in Biloxi, MS. Early bird registration for this conference ends September 30, 2022. Click [here](#) to find out more information about registration and fees.

## **SOUTHERN ASSOCIATION FOR SCIENCE TEACHER EDUCATION – Southern Region**

Join the Southeast Region of the Association for Science Teacher Education for its upcoming hybrid conference. The conference is scheduled for October 7- 8, 2022, in Gulf Shores, Alabama. Virtual attendance is also available. To learn more about ASTE, conference registration, and membership, contact Shana Lee with Mississippi State University at [slee@bagley.msstate.edu](mailto:slee@bagley.msstate.edu)

## **MISSISSIPPI SCIENCE FEST**

Join the Mississippi Museum of Natural Science for MS Science Fest. This event will be held on Saturday, September 17, 2022, from 9 am to 4 pm in the LaFleur Bluff Museum District in Jackson, MS. For more information about this event, contact Nicole Smith at [nicole.smith@mmns.ms.gov](mailto:nicole.smith@mmns.ms.gov) or call 601-576-6000. Keep up with museum events and exhibits by joining their [subscription list](#).

## **FALL 2022 CENTER for STEM EDUCATION SPEAKER SERIES**

The University of Southern Mississippi's Center for STEM Education will host its Fall 2022 STEMEd Speaker Series. This series will feature speakers presenting information on various science-related topics. Each session is held virtually and takes place from 12 – 1 pm, central standard time. Find more information concerning dates and registration, email [STEMEDINFO@usm.edu](mailto:STEMEDINFO@usm.edu) or click [here](#).

## **Instructional Supports and Resources**

### **ACCESS FREE LESSONS WITH PocketLab NOTEBOOK**

PocketLab Notebook is an interactive, cloud-based digital science platform where students collect, visualize, and analyze live data and teachers' lesson plans and monitor student progress. Notebook includes access to hundreds of lessons developed by educators, celebrity contributors, and industry experts that make teaching easy and customizable. Although many labs require special sensors, sensor-free lessons are available. Check out [PocketLab](#).

### **SUPPORT MS COLLEGE- and CAREER- READINESS WITH NGSS RESOURCES**

Build your knowledge and confidence by implementing concepts found in the Next Generation Science Standards (NGSS) with the MS College- and Career- Readiness Standards for Science (MS CCRSS). Gain valuable insight into the rationale and use of each component of the three dimensions. See all [archived webinars](#) or you may register for [upcoming webinars](#).

### **ACCESS PHENOMENAL LESSONS WITH WONDER OF SCIENCE**

The Wonder of Science has curated a collection of phenomena to be used with the NGSS. Although these phenomena are aligned with the NGSS, they can be applied to many concepts that are found in the MS CCRS for Science. To view this collection, please click [here](#).

### **EXPLORE HIGH-QUALITY RESOURCES AND PRACTICES FROM BSCS**

Transform your teaching with research-based high-quality instructional materials and resources from BSCS Science Learning. Explore the [BSCS Educator Resource Center](#) to gain access to materials designed for classroom instruction, professional learning, leadership, and citizen science.

### ACCESS A FREE LAB SAFETY SIMULATOR FROM LABSTER

Labster's Lab Safety simulation gives your students the essential information they need to navigate the lab environment and run experiments safely - and gives you the freedom to avoid repeating your safety lectures. We cover the importance of PPE, how to identify and remedy safety hazards, how to handle dangerous chemicals, and more. Access [Labster's Lab Safety Simulator](#) for more information and resources.

### OpenSciEd PROVIDES HIGH-QUALITY 3-DIMENSIONAL INSTRUCTIONAL RESOURCES

The goal of OpenSciEd is to ensure that any science teacher, anywhere, can access and download free available high-quality, locally adaptable, full-course materials that support equitable learning in science. OpenSciEd instructional materials are robust, research-based, and science learning that is relevant for all students. [Learn more](#) about OpenSciEd resources and services.

### CENTER FOR MATHEMATICS AND SCIENCE EDUCATION K-12 STEM EXPERIENCES

Plan an awesome and exciting STEM experience with your students through the Center for Mathematics and Science Education at the University of Mississippi. Students can experience the night sky with the Mobile Planetarium Program or get engaged with hands-on activities by participating in a STEM Excursion (7-12) or a STEM Exploration (K- 8). They can learn from form STEM Experts. For more information, visit the [CMSE STEM Division site](#).

## Professional Learning Collaborating and Development

### JOIN UNDER THE MICROSCOPE MONTHLY SCIENCE VIRTUAL PLC SCIENCE CHATS

Join the MDE Science Office every 3<sup>rd</sup> Wednesday of each month from 3:30 pm to 4:30 pm, for Under the Microscope Science Chats. The chats offer opportunities for professional collaboration in a safe space. See and bookmark the [MDE Professional Development Calendar](#) to register. **NOTE:** Due to travel obligations, this month's session is scheduled for September 28, 2022, the fourth Wednesday.

### GET YOUR TECHNOLOGY TRAINING WITH FriedTech FALL WEBINAR SERIES

Check out the FriedTech Fall Webinar Series! This webinar series will consist of ten 75-minute weekly webinars. The webinars will start on September 20 and end on October 20, 2022. These 1.25-hour sessions will begin at 4:30 pm. CEUs, SEMIs, and OSL are available. Access the [MS Connects Professional Development Hub](#) for more information and other offerings.

### SEE WHAT THE MDE HAS TO OFFER FOR PROFESSIONAL DEVELOPMENT

The MDE Office of Professional Development offers a variety of professional development opportunities. There are several titles available in the sciences. Professional learning can take place in person or virtually. To see what training is offered, visit the [Office of Professional Development](#), or contact [Dr. Kevin L. Gaylor](#).

## Dr. Gaylor's Science Tips



Hmmm! A once popular TV show host would often make a statement about something and then say.... "Things that make you go hmmm!" Yep, Arsenio Hall, if you are "young" enough to remember. Whether we know it or not, the application of the Science and Engineering Practices often begins with something that made a scientist go.... hmmm, I wonder, or hmmm... what if? Or hmmm... why did? And the quest to find out began. As learning facilitators, our task is to engage students with this

sense of wonder that leads to discovery, learning, deeper understandings, relevant connections to life and living, and of course SCIENTIFIC LITERACY!

So, what is a possible way to get this done?

1. Start with something that can be observed. This is your phenomenon. It does not have to be mind-blowing. Just observable.
2. Ask students about any possible connections.
  - a. What does this make you think of?
  - b. Have you ever had an experience with this or something similar? Describe your experience.
  - c. What do you NOTICE about what is being observed? (Write all these things on chart paper)
  - d. What do you WONDER about (based on what is noticed or experienced? Chart this)
  - e. How can we begin to make sense of our WONDERINGS? This could be possible investigations or some type of research.

Throughout the process, you, the learning facilitator must be strategic and intentional about the types of questions you ask to help guide students. Make use of the Crosscutting Concepts to guide the process.

Let's see what is on our students' minds.

You can access the [Phenomenon Engagement Tool](#) to help facilitate this effort.

For coaching on how to use this tool, feel free to reach out to me.

*Thank you and May the SCIENCE be with you!*

## How Can You Help to Grow the MS Science Community?

- Become active with the [MS Science Teachers Association](#) (MSTA) **PLEASE JOIN!**
- Become active with the [National Science Teaching Association](#) (NSTA)
- Join the [MS Science Educator Listserv](#)
- Share your strategies and resources with others by accessing the [Science Resource Submission Form](#)
- Share news and events with others by accessing the [Science News Submission Form](#).
- View archived MDE Science Newsletters [here](#).

### Contacts:

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K-12 Science Director

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