MDE Science Report

A Science Newsletter **March 2022**

MDE Science Homepage • Science Director Contact • MDE Homepage • MDE Achieves • MDE Professional Development

Science Educators,

This school year is quickly coming to an end. The testing season is nearly upon us, but even closer is the much-awaited SPRING BREAK. Take this opportunity to unwind your minds from the science of everything just for a moment. You can catch up on testing tips, tools, and strategies presented by the state assessment director, Dr. Jackie Sampsell, by contacting Ms. Tanjanikia McKinney. As always, know that I am here to assist you as best I can.

Yours in science,

Dr. Kevin L. Gaylor

K-12 State Science Content Director

Professional Development and Learning

Under the Microscope Monthly Science Chats

Join the MDE Science Office every 3rd 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: This month's session is canceled due to spring break.

University of Mississippi Center for Math and Science Education

The Center for Mathematics and Science Education (CMSE) found on the campus of the University of Mississippi has several opportunities for professional learning in science. See these opportunities and other resources provided by CMSE.

Sign up for the Spark of STEM Coffee Break Series

Take a 15-minute coffee break with the host, Dr. Maynard Okereke, for a Spark of STEM. This is an online series designed to inspire teachers with innovative STEM learning tools. Click the link to participate. Spark of STEM.

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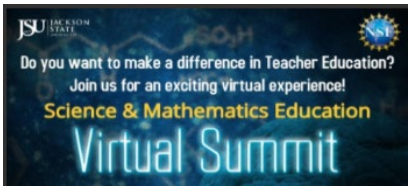
Professional Development and Learning

Free Live Professional Learning with NSTA Webinar Seminars

Interact with nationally acclaimed experts, NSTA Press authors, scientists, engineers, and educational specialists from NSTA partner organizations by taking part in free NSTA Web Seminars. Click here to register for upcoming webinars and to view archived webinars.

Events and Conferences



Jackson State University Virtual STEM Summit

Jackson State University will host a virtual STEM summit on Saturday, March 26, 2022, from 9 a.m. to 2:30 p.m. Mississippi K-12 teachers and pre-service teachers are invited to register. Free CUEs (0.5) will be available while funds last. To get more information, click here.

Mississippi Association of Science Teachers Conferences

The MSTA will host a second spring conference on April 23, 2022, on the University of MS campus in Oxford, MS. Visit MSTA conferences for registration and deadlines.

National Science Teaching Association National Conference

It is time to prepare for the National Science Teaching Association's annual national conference for science teachers. The conference is scheduled for March 21-April 2, 2022, in Houston, TX. Learn more about the NSTA National Conference and related events. Plan your travel NOW!

Get Involved with Society for Science Teacher Conferences

Register to be notified and join the lottery to participate in the Society for Science's annual conferences for Middle School and High School Research Teachers. Visit these links to learn more; Middle School Teachers, High School Teachers

Mississippi Science and Engineering State Level Fair

The Mississippi State Level Science and Engineering Fair is tentatively scheduled to be held on April 01, 2022, on the campus of the University of Southern Mississippi. Contact your Regional Director if you need more information on student registration.

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Supports and Resources

University of Southern Mississippi's STEM on Demand

Integrate live, on-demand STEM lessons with FREE classroom supply kits for K-8 Mississippi science teachers. Standards-based lessons are taught by University of Southern Mississippi STEM Education professors on Zoom. Get more information on STEM on Demand.

Center for Mathematics and Science Education Manipulatives

MS science teachers can check out science manipulatives from the CMSE Manipulative Library. These resources are offered to teachers at no charge. To see a catalog of available manipulatives, visit the CSME Manipulative Library.

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Deadline extended until March 18 for Appalachian STEM Academy

Appalachian STEM Academy: – Established in 1990, the Appalachian STEM Academy is a residential, hands-on learning experience for Appalachia's middle and high school students, as well as high school teachers in STEM-related fields. Hosted by Oak Ridge Associated Universities in Oak Ridge, Tennessee, this program is a gateway to science, technology, engineering and math (STEM) in the Appalachian Region. Many participants come from economically distressed counties and often gain their first exposure to applied science and STEM education through this experience.

Mississippi Department of Transportation RIDES Program

The Roadways into Developing Elementary Students, or RIDES, is designed to improve science, technology, engineering, and math skills, and prepare students in grades K-8 for the future workforce. To learn more about or how to participate in the programs visit the RIDES website. Click here to complete an application to register for training.

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Grow the MS Science Support Community…How?

- Become active with the MS Science Teachers Association (MSTA)
- 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.

Building vocabulary is an essential component to understanding science concepts. But how do we build vocabulary? How do we get students to understand words in the appropriate context? This type of intentional engagement takes patience, and practice. I want to take this time to introduce a strategy that not only helps to build science vocabulary, but oral language as well.

MYSTERY BOX

The Mystery Box Strategy helps students develop oral language skills by sparking conversation about a topic. The teacher fills a box with objects that relate to an upcoming lesson. As the teacher pulls each item from the box, students identify and discuss that item as best as they can. Students will draw on their past experiences and prior knowledge to engage in the discussion. The teacher can utilize this time to implement strategic and probing questioning by engaging students through the crosscutting concepts. The teacher will pull another item from the box, students will identify and discuss this item just as before, but now the students must explain how the two items are related. This will continue until all the MYSTERY items have been removed from the box.

MYSTERY BOX PROTOCOL

1. Decide on topic for lesson (do not tell students). Compile a list of essential vocabulary words for the unit. (You may consult the Instructional Planning Guides for your course or grade-level). Gather items related to the topic (remember DO NOT TELL STUDENTS WHAT THE TOPIC IS)
2. Gather students in whole group and pull one item from the Mystery Box. Pass the item around and let students engage with the item. Encourage students to describe the object and discuss what they may know about the object. The teacher may ask probing questions.
3. The teacher removes a second object from the “mystery box” and asks students to describe and discuss that object, just as before. This time the students will try to explain how items one and two are related. Do this until all items have been removed.

4. Ask students to identify the topic based on their object observations and established relationships. Write the proposed topics in a shared space. Review each object from the box and write all vocabulary words that are associated with that object.
5. Ask students to brainstorm other vocabulary terms that may be associated with the topic. Write these words as a list in a shared space. Reference this list throughout the lesson.

View archived MDE Science Newsletter