

TMTA in Martin

The Tennessee Mathematics Teachers Association Conference will be at UT Martin September 27 & 28, 2024. Joey Beckman, who helped design the Mars helicopter Ingenuity, is the keynote speaker. The conference theme is Perseverance and Ingenuity in Mathematics. Early registration is \$95 if postmarked by September 1. More info is at <https://tmta.wildapricot.org/Conference>

TSTA in Murfreesboro

The Tennessee Science Teachers Association Conference is October 17-19, 2024 in Murfreesboro. Registration is \$175 through August 31 and \$185 through September 1. More info is at <https://tsta.wildapricot.org/2024-Conference>



Chem-is-try Workshop in Ripley



Emi Marlin (L) and Barbie Orr (R) observe diffusion of dye in water.

2024 Summer Workshops

30 teachers attended 4 science workshops in June in Martin and at the Ripley Center. Alex Aitken led Demystifying Phenomena-Based Learning and Science Models for elementary school teachers. Drs. Abigail Shelton and Robbie Montgomery led middle and high school chemistry workshops titled Chem-is-try where participants were able to try hands-on chemistry activities for themselves.



Jody Hatler conducts the Yellow-Blue Switcheroo experiment.

Contact Us

Website: stem.utm.edu
E-mail: eelliot7@utm.edu
Phone: 731-881-7452

Borrow Some Stuff



Compasses

There are lots of items to liven up your math or science classroom. See the full list of equipment on the webpage. Select "Equipment" and "View equipment list." <https://www.utm.edu/offices-and-services/stem-center-for-teaching-and-learning/stem-kits-and-lesson-plans.php>



Fire Syringe

Fall 2024 Newsletter

STEM Center Interns

UTM Students work each summer to sustain the STEM Center through the entire year. They package equipment for workshops, transcribe satisfaction surveys, track workshop attendance, and inventory equipment. They move lots of boxes. In 2024 the interns were Logan Coleman, pursuing a double major in chemistry and philosophy, and Emily Tester, pursuing a double major in mathematics and chemistry. They filled and labeled more than 1,500 bottles with chemical solutions in the correct concentrations to make class sets for Chem-is-try participants.



Logan Coleman (L) labeling bottles for the Chem-is-try workshop. Emily Tester (R) making an Alka-Seltzer rocket

Open SciEd This resource contains free science curriculum for grades 6-12. They are developing K-5 materials. Open SciEd emphasizes collaborative learning through discovery rather than lecture-based lessons. Students are encouraged to ask questions and work to figure out what they want to know. They even have resources to align lessons with specific science standards. Learn more about Open SciEd at <https://www.openscienced.org/>

New Computer Science Standards The Tennessee legislature passed [a law](#) in 2022 requiring computer science (CS) to be taught in grades K-12 by the 2024-2025 academic school year. Elementary schools will embed CS in their curriculum. Middle school students must take one grading period of CS, and high school students must take a CS credit. Teachers with a current license may enroll in the Computer Science Endorsement Pathway (CSEP). Information on CS standards and the CSEP is available here: <https://www.tn.gov/education/districts/academic-standards/computer-science.html>

PhET Simulations PhET is a source of free interactive science and mathematics simulations. Subjects include physics, chemistry, math, earth science, and biology with options for elementary through high schools students. Specific simulations include building a nucleus, Kepler's Law, the solar system, center and variability, greenhouse effect, etc. The website offers 170 simulations to choose from! These would be great for classroom examples or personal curiosity. To experience the simulations visit <https://phet.colorado.edu/>

STEM Center Resources Did you know the UTM STEM Center offers free online educational resources? Not only that, but the STEM Center creates ready-made TEAM Lesson Plans that conform to current Tennessee state standards. Our lesson plans cover K-8 math, science, and computer science curriculum, as well as middle and high school chemistry, robotics, geometry, biology, and more! Not only that, but if you are in need of assistance in getting the materials for an activity, the STEM Center will provide those materials at no cost! Follow this link for access to all of our resources: <https://www.utm.edu/offices-and-services/stem-center-for-teaching-and-learning/stem-kits-and-lesson-plans.php>