

TMTA Conference

The Tennessee Mathematics Teachers Association annual conference will be September 26-27, 2025 at Pellissippi State Community College. <https://tmta.wildapricot.org/Conference>

TSTA Conference

Join the Tennessee Science Teachers Association in Murfreesboro for their Golden Jubilee 50th annual conference October 16-18, 2025. <https://tsta.wildapricot.org/2025-Conference>

NASA TechRise Challenge

Student teams from grades 6-12 may apply for a \$1,500 grant to construct a payload for a high altitude flight experiment. Applications open in September. www.nasa.gov/stmd-flight-opportunities/access-flight-tests/techrise/



Emily Tester conducts flaming dollar demo at Milan Middle School.

Milan Middle School

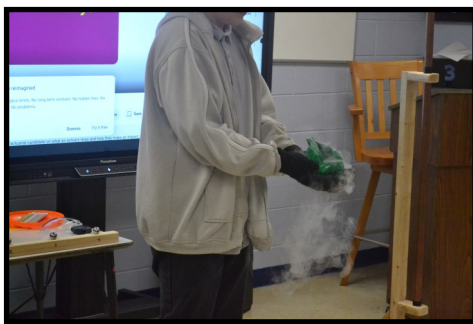
On May 27, the STEM Center visited Milan Middle school to demonstrate various science concepts for 35 students. Demonstrations included witnessing the effects of liquid nitrogen, launching a water rocket, and much more!



Steve Elliott pours liquid nitrogen.

Martin Middle School

The STEM Center also visited Martin Middle School to share information about becoming an actuary and to show off some science demos.



A Martin Middle School student holds a balloon that had been cooled in liquid nitrogen.

Contact Us

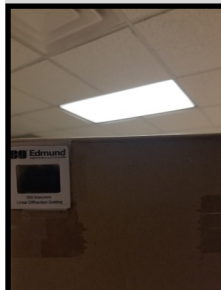
Website: stem.utm.edu
E-mail: eelliott7@utm.edu
Phone: 731-881-7452

Borrow Some Stuff

Binoculars



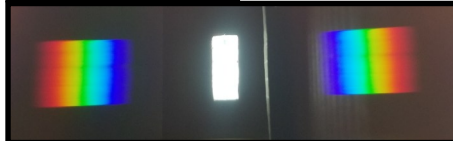
Shoe Box Spectroscope



Indoors
(fluorescent
lights)



Outside (Sun)



Fall 2025 Newsletter

SPSS The Science Pedagogy Support System (SPSS) partnered with UT Martin and UT Southern to hold training sessions for the Haywood, Tipton, and Giles County school districts over the course of 2025. Many K-12 teachers gathered to learn about phenomena-based learning, a teaching technique focused on student driven learning. The teachers participated in activities that use this technique including reacting bath bombs with water, measuring humidity in various soil conditions, and observing how magnets interact with one another. Training sessions were led by Alex Aitken, Director of Science for Haywood County Schools, and Baylee Parish, Instructor of Chemistry at UT Southern. Several teachers spoke about how these teaching methods have already sparked curiosity in their students.



Hannah Huntley studies centripetal force at UT Southern March 28.



Alex Aitken demonstrates 3D science instruction with magnets at Brighton Middle school July 9.



Benita Bibb, John Elinor, and Alex Mashburn observing the endothermic nature of bath bombs July 9.



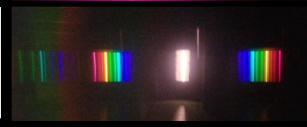
Sarah Carroll, Kristal Rose, Hannah Huntley, and Andy Abernathy make bath bombs at UT Southern March 28.

Spectroscopy You may be wondering what all the colorful lines on page 1 and to the right are. Each is a spectrum, a band of colors produced by separation of the components of light by their different degrees of refraction according to wavelength. You can borrow shoebox spectrometers, gas spectrum tubes and a power supply from the STEM Center! There are also classroom-ready plans for these topics at the link: <https://www.utm.edu/offices-and-services/stem-center-for-teaching-and-learning/stem-kits-and-lesson-plans.php>

Hydrogen Gas



Helium Gas



Nitrogen Gas



Graspable Math Explore expressions and equations in an innovative way. Graspable Math allows students to interact with equations to build algebra fluency. This provides an emphasis on reinforcing basic properties of algebra while providing instant feedback to students. This resource can be found at <https://activities.graspablemath.com/>

Museo Virtual de Matemática This virtual museum allows you to learn about and play with different mathematical problems through applications distributed throughout 5 rooms. Two exhibits of note are the musical calculator and Mozart's dice. <https://mumat.matcuer.unam.mx/>