

## Our Centers

**Central GYSTC**

Mercer University

**Chattahoochee-Flint GYSTC**

Georgia Southwestern State University

**Etowah GYSTC**

Georgia Highlands College

**Gordon GYSTC**

Gordon State College

**Magnolia Midlands GYSTC**

East Georgia State College

**Oconee River GYSTC**

Northeast Georgia RESA

**Southwest GYSTC**

ABAC at Bainbridge

**West GYSTC**

University of West Georgia

**GYSTC @ Augusta**

Georgia Cancer Center – Augusta  
University

**GYSTC @ Gainesville**

Lanier Technical College

**GYSTC@ South Georgia**

ABAC at Tifton

**GYSTC State Office**

Kennesaw State University

## Note from the Director's Desk



## Welcome back, Georgia Educators

As we begin a new school year, GYSTC is fully committed to offering students and teachers flexible, adaptable STEM experiences. GYSTC is ready to support your system by offering supplemental services that benefit teachers and students. Visit our website at [www.gystc.org](http://www.gystc.org) to see all GYSTC can offer your system as we navigate another school year. Our website includes resources available to all as well as premium resources available only to our member systems. Below you will find a summary and link for two Simple Science Activities to do with your students. Visit [gystc.org/free-simple-science-activities/](http://gystc.org/free-simple-science-activities/) for access to these activities and many more. While there, you can also find a short demonstration video that explains the attached lessons. We hope these simple activities will help you engage your students in the wonder and beauty of science as well as encourage them to ask questions and explore.

Thank you for your continued support of GYSTC, and we wish you a very successful start to your school year.



## GYSTC Gems

Our "Gems" from the summer are all the participants that came to our various summer camps across the state. Our centers hosted multiple camps: STEM discovery, mini drones, game development, Lego robotics, and more.



[gystc.org](http://gystc.org)



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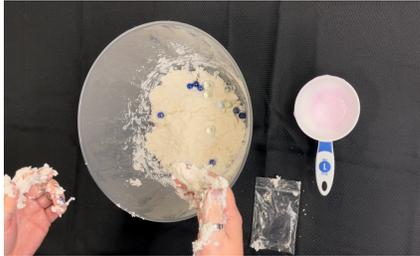
# July Simple Science Activity



In honor of the anniversary of the moon landing on July 20th, the Simple Science Activity for July showcases the different textures of the moon's surface in comparison to the composition of planets (rocky vs. gaseous). The activity is entitled **Miraculous Moon Dough**.

In this activity, your task is to create a model of the surface of the moon. The Moon is a 4.6-billion-year-old natural object that orbits the Earth. Mostly made of rock, the surface of the Moon is littered with pieces of rock and dust. The surface itself is not smooth but covered with craters from meteorites that have crashed into the Moon. Plains (called maria) created by solidified pools of lava and mountains are also visible on the Moon's surface. In 1969, the U.S. Apollo 11 spacecraft carried the first two people (Neil Armstrong and Edwin (Buzz) Aldrin, Jr.) to walk on the moon. They brought 842 pounds of Moon rocks back, which are still studied to this day. Visit [gystc.org/free-simple-science-activities/](http://gystc.org/free-simple-science-activities/) for access to this activity and many more. While there you can also find a short demonstration video that you can watch with your students.

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# August Simple Science Activity

As your students return to the classroom, we are reminded of the days when fresh packs of #2 pencils were broken out on the first day of school. August's Simple Science Activity will showcase the effects of balanced and unbalanced forces on an object. The activity is entitled **Balance the Pencil**.

In this activity, your task is to balance a pencil vertically on a craft stick. Every object with mass has a center of gravity. The center of gravity is the point on an object where the mass is perfectly balanced. The ease with which an object can be balanced depends greatly on the location of its center of gravity. In a pencil, the center of gravity is right in the middle.

Of course, it is much easier to balance an object with a broader base of support and a lower center of gravity. In our activity, the base of our object is the tip of the pencil – not very big. Since we cannot make the tip of the pencil bigger, we must move its center of gravity. To do this, we attach a pipe cleaner with clothespins and added mass to move its center of gravity and increase its stability

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# GYSTC Spotlight

This month, we are shining a light on our **West GYSTC Board Chair, Mr. Victor Rundquist**. Mr. Rundquist started his studies at DeAnza College in Cupertino, CA a mere 1 mile from Apple's headquarters. While there he spent 3 years at NASA Ames. As an intern at NASA, he spent time working on the very first WIFI networks and even spent a summer in the Arctic studying mobile computer networks. After taking the opportunity to work for NASA, he transferred to Auburn University where he received a bachelor's degree in Wireless Engineering and a master's degree in Electrical Engineering. During graduate school he restructured a radio lab where he taught undergraduate students to build their own working AM/FM radios. They even had their own small scale FM radio station for testing.

# GYSTC Spotlight (cont.)

Through his exposure at NASA and Auburn University one of the things Mr. Rundquist learned very well was the ability to learn. His job at Southwire has him delving into the areas of material science, metallurgical science and even some biology (even though his formal training is in electrical engineering). He is responsible for the research and product development of Southwire products on the metallic side of the business. His job has him becoming an expert in all the areas of our copper, aluminum, steel, and even lead materials. Having the ability and drive to always learn new things keeps Mr. Rundquist on top of his tasks every day. He spends time Southwire's plants helping with day-to-day issues and implementation of new products and manufacturing processes. As an R&D engineer he even gets the opportunity to invent new things. He currently has 6 patents granted with a few more pending.

We are excited to share the lesson, *Be an Electrical Engineer* with your students so that they can see what it is like to be an Electrical Engineer just like Mr. Rundquist! Please visit [gystc.org/gystc-spotlight/](https://gystc.org/gystc-spotlight/) to find this lesson and more.



## State Office Offerings



### Professional Learning Workshops

#### Upcoming Virtual STEM Essentials Workshop:

In this two-part after-school workshop, participants will create, design, collaborate, and problem-solve as they engage in relevant hands-on explorations. *(Cost per teacher is \$99)*

- September 22 & September 29, 2022 - Virtual Session - 3:00 p.m. - 5:00 p.m.
- November 10 & November 17, 2022 - Virtual Session - 3:00 p.m. - 5:00 p.m.
- January 19 & January 26, 2023 - Virtual Session - 3:00 p.m. - 5:00 p.m.
- March 16 & March 30, 2023 - Virtual Session - 3:00 p.m. - 5:00 p.m.

#### Upcoming Virtual Excellence in Science Teaching Workshop:

In this three-part after-school workshop, participants will hone their abilities to plan excellent science instruction. *(Cost per teacher is \$149)*

- October 13, October 20, & October 27, 2022 - Virtual Session - 3:00 p.m. - 5:00 p.m.
- December 1, December 8, & December 15, 2022 - Virtual Session - 3:00 p.m. - 5:00 p.m.
- February 9, February 16, & February 23, 2023 - Virtual Session - 3:00 p.m. - 5:00 p.m.
- April 13, April 20, & April 27, 2023 - Virtual Session - 3:00 p.m. - 5:00 p.m.

*Looking for specific topics? Please contact GYSTC at [gystc@kennesaw.edu](mailto:gystc@kennesaw.edu) to put together a workshop that meets your needs. Pricing for on-site professional learning may vary.*



### In-Class Field Trip/ Embedded Professional Learning

On-site In-Class Field Trip/Embedded Professional Learning sessions are \$10 per student (travel fees may apply). Virtual In-Class Field Trip/Embedded Professional Learning sessions are \$5 per student. This includes the activity and materials.

Visit: [gystc.org/in-class-field-trips/](https://gystc.org/in-class-field-trips/)  
to view our offering catalog

### STEM Day / Family STEM Night

These are community – school-based activity that allows students, parents, teachers, and caregivers an opportunity to participate together in the excitement of STEM activities. STEM Days/Family STEM Nights are \$1,500 per event. This includes activities and professional development for the teachers.

Visit: [gystc.org/stem-day/](https://gystc.org/stem-day/)  
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