

**Title of Workshop****Workshop Description**

Mathematics and Juggling

Mathematics makes juggling possible! Juggling patters will be explored and modeled in front of the class and with an online juggling simulator. A juggling competition will be held to find who can master the longest pattern. Winners will earn their own juggling balls!

It's a Toxic World

In this workshop, participants will determine what substances in our everyday environment could potentially be toxic. The girls will study a wide variety of organisms' from bacteria, to crickets, to whales! Participants will learn some of the possible effects of these chemicals on humans as well as other species. The participants will also be able to learn about a wide variety of toxicological research studies that are currently underway.

Make your own extrasolar system!

This workshop will talk about what planets are and how we can find them. The girls will build their own extra-solar system based on the given information, and we will compare the properties of these systems to those of our Solar system. Will we find conditions favorable for life in these systems? The girls can create their own solar systems.

Savvy Searchers

If you think you're a good Googler, you could be wrong! Participants will learn new searching strategies, including image search and reverse image searching. Additionally, we will discuss the dark web, library linking and citation tools. We will use advanced procedures and functions in searching and creating a bibliography.

Don't Go Breaking my Heart!

"Listen to your heart" is good advice, and now you really can! Grab a stethoscope and learn about how your heart works and how you can make it stronger!

Engineering is Beautiful

Come learn about the chemical processes which are used to create lip balm. Each person will get to make their own lip balm. This program is the "balm"!

Say Whaaaat?

Say Whaaaat? That's what you'll be saying in this session. Do you have a phenomenal idea that could change the world, but can't communicate it to others? In this session we will play a game that will give you tips on effective communication.

Catch the Electrical Engineering Bug

Electrical Engineers create and use technology to solve problems. Come join the women of electrical & computer engineering to learn how to build paper circuits! You will hear the perspectives of current female engineering students to find out what it's like to study electrical & computer engineering at Texas Tech.

Let's Go Fly a Kite

Come build a kite with us and find out how wind resistance and the density of building materials affect how a kite performs. Each girl will get to build their own kite.

Under Stress

Bridges can withstand tremendous amounts of weight and stress. Using toothpicks and marshmallows, your team will build a bridge and then test it. Which one will be the biggest and the strongest? Which one will survive under stress! Come find out!

Picture This.

Learn about optics by building your own pinhole camera! We will also be talking about the polarisation of light and how camera filters work.

Fun with Fossils!

If you are interested in fossils, this is the workshop for you! This workshop allows students to learn about the wide variety of fossils that we can find in the rock record.

Soil: Not just dirt; A whole other World

Students will learn about the parts/animals in soil and the importance of taking care of our current soil. A hands-on activity will teach the students about soil filtration of nutrients and potential chemicals in the environment.

Create Your Dream Island

What's in a map? Students will use modeling clay to create an "island" and then create a map for it using contour lines and symbols. Are maps even still relevant or current? Come find out!

The Dirt on Soil

Why is soil important? What is soil made of? Is all soil the same? Learn the answer to these questions through hands-on experiments that explore soil texture, solid structure, how water moves through soil and why it matters.

Hot Rock Bling

Did you know you can melt rocks? Does every rock melt the same? Is melting a rock like melting ice? Come learn about melting rocks and take a unique piece of jewelry home with you.

Chemistry Savvy

What are atoms and small molecules, macromolecular polymers and biomolecules? Come find out in this workshop! Activities will introduce students to the periodic table of the elements and properties of acids, bases and polymer materials. Students will learn about the water absorbing polymers in disposable diapers and perform a polymerization reaction.

Becoming a Nurse: Where do you Start?

This workshop includes direction on what nurses do and how to progress in the field of nursing, volunteering in healthcare, joining appropriate groups to facilitate success in the science courses, and how to stay focused! Come and learn!