



SESSION I AM CLASSES

Chain Reaction Contraptions

Session I AM

Explore the engineering process by asking questions, planning, building, creating, and analyzing. Learn to generate multiple creative solutions to a problem as you build a wacky chain reaction machine. Create a slow-moving marble run. Build a machine that will make something happen. Join the marble run to the contraption. Connect the contraption to another one for a multiple chain reaction. Make your machine do work in the most simple-complicated way possible. Use the principles learned to create other machines or mechanical games. Be prepared to plan, build, and tinker as you create chain-reaction contraptions.

Lab Fee-\$5.00

Instructor: Mark Garcia, Elementary Teacher, Hallsville Public Schools

Dream Zoo

Session I AM

Lions and Tigers and Dinosaurs?!? Oh My!! Join teammates to design a zoo that holds the animals YOU would want to see in your ideal zoo. With a generous budget of 60 million dollars, you must buy all the animals, construction materials, and other necessities for your zoo. Teams decide on every aspect of the zoo including cage and shelter placement - (careful not to put the lions too close to the zebras). Describe what animals will be there, admission prices, etc. Include animals that are normal to zoos and animals that are long gone and extinct. This is a DREAM Zoo after all! The goal is to design a zoo that YOU would love - obviously- but one that everyone else would love as well, all while staying inside your budget. This project will be an adventure and a challenge as you create your dream zoo.

Instructor: Angela Russell, Middle/High School History Teacher, Fulton, MO

Island Curse

Session I AM

Will you conquer the Island, or will the Island conquer you??? On an island in the Pacific a group of billionaires were genetically engineering cryptids and other prehistoric animals, but something has gone wrong!! The scientists are gone, workers disappeared, and the animals now overrun the island filled with so many unanswered questions! The billionaires are offering a large sum of money for someone to capture the escaped beasts and find out the mystery on the island. This challenge will be different for each one of you as you use your creativity, imagination, and engineering skills to conquer the cursed project and return the animals. You choose adventure as the curse unfolds!! Research various cryptids, decide and design the best trap and cage, map out the island, and create a choose-your -own adventure story, all while trying to survive the island and its curse!!

Instructor: Cami Webb, Teacher of Gifted, Fulton Public Schools

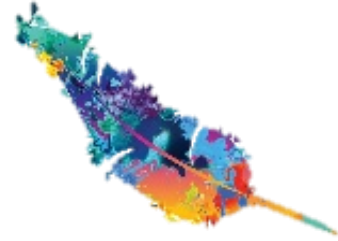
Mission to Mars

Session I AM

Join the crew to experience the challenges of becoming the first generation of astronauts to navigate the complexities of human life on Mars. Use every ounce of your scientific wit and creativity to analyze the various theories on how to make Mars hospitable to humanity. Dig into what the Mars Rovers has discovered and explore Olympus Mons (virtually). Finally, be prepared for epic natural disasters while we try to colonize the Red Planet. Examine the likelihoods and long-term possibilities of real-life Mars' missions and analyze the potential benefits for life back on planet earth.

Lab Fee: \$5.00

Instructor: Greg Irwin, AP History, Columbia Public Schools



Optical Illusions

Session I AM

"Perhaps, optical illusions occur because we don't always know what we see, but what we tend to see what we know." —AU College of Medicine.

Study famous optical illusions and learn how to create your own. Analyze why do we see color when there is only black and white. Learn about the Zollner Effect. Use lines and color to create movement on the page. Optical Illusions are visually perceived objects and images that differ from objective reality. These visual phenomena both fascinate and perplex us. Interpret mind bending images to determine the reality of your perceptions. Explore theories behind a variety of illusion types. Make organized chaos as you create your own optical illusions.

Lab Fee: \$5.00

Instructor: Melanie Studer, retired teacher, Author/Educational Blogger

Science Gone Wild!

Session I AM

Explore, measure, mix, cook, bake, and investigate the importance of specific ingredients, the science of mixtures and solutions, and the chemical reactions that may occur when ingredients are combined, heated, shaken, or frozen. Identifying variables and choosing specific variables to change or test, create chemicals to explore ratios, the viability of substitutions, and what customizations and changes to recipes can work.

Use the Fibonacci Sequence to layer different proportions of simple syrup and lemon juice to create a rainbow-colored drink. The varying densities of the solutions create layers and magic; you have layered lemonade! From making fizzy sherbet, freeze dried candy, Elephant toothpaste, homemade gummy bears... Follow the scientific processes as you explore the wilder side of science! Research the chemical reactions or physics behind the experiments (let's even EXPLODE A WATERMELLON!)! These activities offer opportunities for mouthwatering and tasty science!

Lab Fee: \$5.00

Instructor: Nikki Long, Elementary Teacher, Fulton Public Schools

Unique Art That Moves

Session 1 AM

Did you know art can move? Combine art, engineering, and science to create sculptures that move. This movement can be created mechanically, by touch, wind, or water. It is Kinetic Art, a type of artwork that contains moving elements. Moving art can use many kinds of mediums, artistic styles, and imaginations! Explore the works of famous artists, like Alexander Calder, as well as Contemporary artists Theo Jansen and Anthony Howe (the creator of the Rio Olympics cauldron sculpture, they all included movement in their work. Explore movement in art and create a variety of sculptures and movement of art (one even creates sound) using recycled metal objects, paper, string, plaster, wire and beads. Get inspired and create - make the next famous CK Moving Art Masterpiece!

Lab fee: \$10.00

Instructor: Nancy Foote, Retired Art Teacher, Fulton Public Schools & St. Peter Catholic School