

SESSION III AM

Advanced Lego Robotics

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Learn Lego Spike coding combined with Lego building elements. Dive into visual coding fundamentals. Build interactive projects to understand how robotics work. Use your knowledge to think critically and solve complex problems using drag and drop block coding language. Take your coding skills to the next level as you have fun creating and commanding Lego creations. For the experienced and beginning coder.

Instructor: George Yates, Teacher, Fulton Public Schools

Aspiring Veterinarians

Session III AM

For those who have a home full of pets and dream of having more. Are you driven by a natural affinity for helping creatures big and small? Join other aspiring veterinarians to gain practical awareness and discover if the profession is right for you. Familiarize yourself with the ins and outs of the animal veterinary profession. Learn about animal husbandry as we visit a working farm. Get ready to get up close and personal with a diverse range of animals including dogs, cats, cows, sheep, and even python snakes. Study animal anatomy through labs and computer programs. Compare the anatomical features of a pig heart and a cow heart. Additionally, examine the structure, touch and characteristics of a genuine animal eye. Delve into various animal health and veterinary medicine topics with CK classmates as you share information through hypothetical scenarios in public health, food, wildlife, adoption, and euthanasia. To culminate the class, visit the University Vet School where you will have the unique opportunity to interact with and observe animal doctors at work. This firsthand experience will provide valuable insights into the day-to-day realities of the veterinary profession.

Lab Fee: \$5.00

Instructor: Cami Webb, Teacher, Fulton Public Schools

Brain Matters

Session III AM

Is mental health on your mind? Are you curious about psychology? Dive into the intricate labyrinth of the human mind. Learn about how the brain works, and what phobias and disorders are. Apply positive psychology practices to your own thinking. Cultivate calm through mindfulness. Examine happiness. Discover the interplay of emotions, behaviors, and the societal structures that shape them. Through interactive activities, class discussions, and speakers, empower yourself as you explore the depths of how the brain works, it matters!

Instructor: Jonathan McFarland, HS English, Religion, and Philosophy, Hickman High School

Call Your Next Witness: Mock Trials

Session III AM

Do you know what it takes to be a lawyer? Critical thinking, persuasive skills, and careful attention to detail will help you win cases and pursue justice. In this class we will research evidence from different trials; choose a side, write testimony, and conduct our very own mock trial. Brush up on both your acting skills and knowledge of court systems as participants become expert witnesses, attorneys, or the accused. Practice oral and written persuasion, argue motions, and learn the elements of law as they relate to the case. Teams act as the jury for the other group's trial. An attorney will answer questions and help guide students in preparing the case. This is the year we will be trying a criminal case instead of civil. If you are intrigued by the Judiciary System and the law join us as we dive into a Mock Trial.

Instructor: Dr. Danielle Johnson, Columbia Public Schools, HS Speech and Debate Coordinator

Dungeons & Dragons & You!

Session III AM

Come brave heroes! Explore the fantasy realms of Dungeon and Dragons (D&D)! The grandfather of Role-Playing Games, D&D originated in 1971 and has grown into a cultural phenomenon, bringing players to tables around the world. D&D is a collaborative role-playing game that utilizes critical thinking, improvisation, teamwork, problem solving skills and through your shared adventure, a deep held camaraderie. Develop a character and gain prestige, power, and gold as you gain experience by completing quests, solving riddles, and defeating monsters. Choose to play a mysterious Wizard, a brawny Barbarian, or a Ranger of the woodland. Learn about the history and evolution of D&D, character creation, world building, develop backstory, build scale terrain pieces, create props, and of course play! The class is designed for beginners, experienced players, and those curious about the game and culture. Play games in small groups with miniatures, terrain, and props. Adventure awaits! Will you rise to the station of heroes of the realm? Will fates be on your side? Will your dice, wits, and friends carry you through? Find the answers and become legend in the world of Dungeons & Dragons!

Lab fee: \$5.00

Instructors: Jamie and Ron Danuser, Missouri School for the Deaf

It's All in Your Head

Session III AM

Of all the disciplines, philosophy asks the deepest and most far-reaching questions. How does one obtain wisdom? Is knowledge innate, or does it come from experience? What is the ultimate reality? Are human actions free or determined? Is morality relative or absolute? Did the clock strike 4:00 o'clock or 1:00 o'clock four times? Investigate these and other thought-provoking questions as we become acquainted with the nature of Western philosophy and the philosophical life in Philosophy 101. To accomplish these goals, you will investigate the works and ideas of some famous philosophers of whom you may have heard (Socrates, Plato, Aristotle, Locke, Rousseau) and some who are perhaps unfamiliar (Descartes, Spinoza, Hume, Kant). In addition, we will see how many of philosophy's most enduring questions assert themselves in today's popular books, television series, and films. Required materials: a sense of wonder.

Instructor: Scott Henderson, World Language, Tolton High School, Columbia, MO

Masterpieces in Motion: Intro to Animation

Session III AM

Bring your storytelling ideas to life in an exciting adventure. Write, direct, and animate your own stop motion animated film. Challenge your creative self while creating this short film masterpiece. Write script, sculpt puppets, build sets and props to prepare your own work for the computer. Learn to capture the frames and other movie making techniques. Using the chosen app for the class, take pictures of the characters in small increments. Move the objects slightly and shoot again. Voila! The Illusion of movement captured in your very own masterpiece film.

Lab Fee: \$5.00

Instructor: Julia Padget, Art Teacher, Fulton Public Schools

Memory Perceptions

Session III AM

Memory and Perception. How does the world look to someone who is colorblind? Why do we have trouble remembering what we had for breakfast, but can we remember things from years ago? What details do we take in and what do we miss? Join us to play tricks on our brain and learn how we sense, perceive, and remember the world. Practice memory games to expand your ability to remember. Learn the ins and outs of your brain.

Instructor: Katie Wood, Social Studies Teacher, Fulton Public Schools

Mystery Files 404

Session III AM

The world is full of hidden clues and mysteries, and sometimes, even errors hold the key to solving a case! Step into the shoes of a detective and dive into the enigmatic world of unsolved crimes. Investigate strange patterns, uncover buried secrets, and reveal the motives hidden beneath the surface. Learn to analyze trends, connect the dots, and work together in captivating team challenges. Grab your detective gear—it's time to uncover the unseen!

Instructor: Rebekah Hanak, Mathematics Education Doctoral Candidate at the University of Missouri Columbia.

Nuclear Chemistry

Session III AM

Looking for scholars interested in anything nuclear! Nuclear reactions, nuclear decay, nuclear energy, and nuclear reactors. The future of nuclear energy is making a turn in the world of energy, with advancements of nuclear reactors using nuclear fusion. Explore all the aspects of nuclear chemistry inside the classroom. Learn about radioactivity when it comes to the three main types of radiation and decay. Model radioactive half-lives. Make atoms visible in cloud chambers. Examine uranium ore (it is safe). Test for radiation in everyday objects with a Geiger Counter. Debate the advantages and disadvantages of nuclear energy with CK classmates. No need to have prior knowledge – we will introduce the main components of an atom before diving into nuclear chemistry.

Lab Fee \$10.00

Instructor: Josephus Johnson, Gifted Teacher, Columbia Public Schools

We Didn't Start the Fire (Fall Out Boys)

Session III AM

Most history classes stop their timeline in the early 70s with the Vietnam War. What's happened since then? This is your chance to find out! Join us in learning about significant social, political, and economic events from 1989 to 2023 through an analysis of Fall Out Boy's "We Didn't Start the Fire", a tribute to Billy Joel's original song by the same name. Explore questions with fellow students such as, "How did YouTube kill MTV?", "Where did a garbage patch in the middle of the ocean come from?", and "Why is our logic about alien existence a paradox?". Experience a bridge between history and current events with a unique lens, and join us for this 34-year adventure!

Instructor: Drew Shattuck, AP History Teacher Rock Bridge High School, Columbia.



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