Welcome

"Sparrow Hawks"

to Our

Annual

Sci-Tech Night

Puckett's Mill Elementary School

February 2, 2012

All tickets to each session may be picked up at the cafeteria doors as you come into the school. You may begin entering at 5:30. Each person may choose 2 events to attend. **All children** must be accompanied by a parent. We ask that adults sit or stand around the room in order for the students to view the session. The sessions will not begin until after our opening feature in the cafeteria.

Opening Session

The Magic Science Circus (Arthur Atsma) - Location—Cafeteria
Fast paced newtonian physics taught through circus stunts and magic stunts. Learn all about gravity, inertia, acceleration, centripetal force, friction, and what it takes to hit the sound barrier and so much more!
"All of my shows are filled with captivating sleight of hand magic, audience interaction, comedy, and most important of all, educationally significant material that is current with state standards. I look forward to the opportunity to serve your school!"
- Arthur Atsma

EXCITING EXHIBITS & EXPERIMENTS

Starry Night—Astronomy (Mr. Ramakers & Atlanta Astronomers) - Location # 1
Check out the night sky with teachers from the Charlie Elliot Chapter of the Atlanta Astronomy Club. Participants will be able to view planets and constellations with a variety of telescopes. This event will be outside, so dress for the weather.

Clean Air Campaign (Joey Giunta) - Location # 2
Commuting, carpooling and turning off your lights...what do these 3 things have in common? You got it! In this session we will investigate ways to make your air healthier.

StarLab (Teachers from Elachee Nature Center) - Location # 3
Explore the mysteries of the night sky inside the Star Lab Planetarium. Learn about stars, constellations, mythology, and other interesting parts of the astronomical universe. Space limited to 30 per session.

Running Kinetics (Coach Andre Al-Ghani, Jackrabbit Track & Field) - Location # 4
You will have a live demonstration on Running Forms & Mechanics, Posture & Stability, and Aerobic & Anaerobic Exercising. Come and learn what makes running exciting and fun!

Jekyll Island Bird Sanctuary (Jan Pittman) - Location # 5
Bird banding is one of the most effective methods of studying the biology, ecology, behavior, movement, breeding, productivity, and population demographics of birds. http://www.savejekyllisland.org/Banding.html

Awesome Archeologists (Les Brown) - Location # 6 **Grades K-2**
This seriously awesome archeologist that recently studied in Peru will be sharing tools of the trade and other secrets from past archeological digs.

Science Fun (Robert Hines, Georgia Gwinnett College) - Location # 7
Do you like to have fun doing experiments in science? This is the exhibit to come to and have some hands on fun.

What We Can Learn From Skulls (Dr. Norm Thomson and Dr. David Jackson, UGA) - Location # 8
Skulls and fossils come alive in this presentation. Join these impressive professors as skulls of different species are analyzed. Discover how skeletal remains can unlock the past.

Our Shared Forest (Mrs. Exum) - Location # 9
Students explore the migratory habits of birds from Georgia and Ecuador and why we need to protect their migratory habitats. Students will also 'Dig In' as they develop a greater knowledge of bird habitats at Puckett's Mill and will 'Fly High' as they investigate migratory birds! "Make-it-and-take-it" activities for grades K-2 and an interactive website for grades 3-5.

Boo-Boos and How to Help Them Heal (Valerie Rogers, Gwinnett Medical Center Imaging Services) - Location # 10
Presentation highlighting the different types of Imaging methods and showing some hopefully obvious pathology that technicians see on a regular basis in treating patients. There may even be some give-aways!

Hissing Cockroaches (Charlie Jones & Shay Runion, Arrow Exterminators) - Location # 11
What are insects? What makes a fly an insect? Is a spider an insect? Why are termites so cool if they are in the forest, but a terrible pest if they are in my home? Learn more about Entomology. These exterminators present "Bugs Are Cool."

The Awesome Brain (David Nicholson & Constance Harrell, MD/PhD program at Emory University) - Location # 12
The human brain is one of the most mysterious, complicated, and awesome things in the entire universe. In this presentation, students will be shown some of the ways science and engineers try to figure out how the brain works. Students will also look at the differences between brains in different animals. At the end of the presentation, you will be able to see and touch a REAL HUMAN BRAIN as well as the brains of a monkey and a rat.

From Bean to Bar: Where Does Chocolate Come From? (Mr. Kaderli, EmKay Confectionery Machinery) - Location # 13
Ever wonder how your favorite chocolate bar is made? Learn how a little bean can become a treat!

Dawg Vet (Dr. Tara Zak, DMV, Hamilton Plaza Animal Hospital) - Location # 14
What makes dogs sick? Come and learn how parasites can get into dogs and grow. Through the use of microscopes and the naked eye, you will see what parasites, heartworms, intestinal worms, ear mites and more look like and what they do.

Looking Inside Teeth (Dr. Adam White & Ashley Bailey, Pickron Orthodontists) - Location # 15
Use of three-dimensional radiography technology for orthodontic applications including impacted teeth, wisdom teeth evaluation, and oral pathology.

Behind the "Movie Scene" (Mr. Frank Mastrogiacomo, DeKalb Co. School of Drama) - Location # 16
How does sound effect the emotional impact of the visual images? This expert in movie making will investigate how film makers can manipulate our emotions using audio clues.

Mission to Mars (Mr. Ramakers) - Location # 17
We will show the students what happens in a control room at NASA during the landing of a Mars mission and its goals. We will discuss the Mars Science Laboratory, which was launched after Thanksgiving and will be on the way to Mars during this event.

Reaching Across the World with Video Conferencing (Mr. Beguhn) - Location # 18
Learn how people talk face to face from Puckett's Mill to somewhere else around the world. How are computers set up to allow us to communicate this way? Mr. Beguhn has set up conferencing with NASA, Australia, Washington DC and many more places. Be a part of this great Technology!

Drug Safety Monopoly — Pfizer (Dr. Valerie Gamble) - Location # 19
Welcome to the world of new drug discovery. The drug discovery process takes millions of dollars and several years to complete. This session features a game that will illustrate the steps involved in inventing a new drug and will give you a real world experience of the cost and time involved. For 4-5 graders only

Upper Cervical (Dr. Adam and Dr. Tedder) - Location # 20
Don't lose your head and come on by to learn about brain stems and the science of healing. This expert will explain the amazing healing power of the human body and how it is designed to be healthy and function for up to 120 years! Dr, Tedder will also show how the brain and spinal cord are the control center for all body functions.

EXCITING EXHIBITS & EXPERIMENTS, con't

Greening Forward (Charles Orgbon) - Location # 21
A fast growing youth-led environmental advocacy organization will host a discussion engaging participants on Gwinnett's transportation issues, its effect on the local environment, and how young people can make a difference in the issue.

Technology of the Past (Catherine Long & Jennifer Cheeks—McDaniel Farm/Female Seminary) - Location # 22
See how inventions of the past shaped our lives. Come see how technology has changed over the years.

Motherboards (Mike Lang) - Location # 23
Smart phones, tablets and computers, how do they work? This expert will show how *central processing unit*s carry out the instructions of various computer programs.

Gwinnett Pediatrics (Pediatric Doctor) - Location # 24
Healthy eating affects your health and how your brain work. Learn how chemical compounds are processed inside of your body and how it effects your performance. These experts will show how to create healthy snacks.

Forensic Archaeology & Anthropolgy (Tony Fitzpatrick) - Location # 25 **Grades 3-5**
This involves archaeological survey, excavation techniques, information on the skeleton, and creating a biological profile (stature, age, gender).

Designing An APP (Austin Evers) - Location # 26
Make sure you stop by to learn about the inspiration and process of designing an app for the iPhone from this amazing young man.