

STEM Academy at Burnt Hills (Pashley) Elementary School – Spring 2016

Grades 2-5 - Friday, 3:00 - 4:30

Apr. 1, 8, 15, 22 Snowdate: May 6

Registration Deadline: March 18

Archaeology 101 "What's Under My Shoes" with Jason Scott

Who doesn't want to explore the world portrayed by Indiana Jones, 'X' marks the spot and gold pirate doubloons? But, it is also just as important to understand the real science of 'digging' up our past with all the discoveries which tell the story of who we were and who we are as people. Archaeologists, like other scientists, differ greatly in what phenomena they study and how they go about their work. Although there is no fixed set of steps that all scientists follow, scientific investigations usually involve the collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations to make sense of the collected evidence. The elements of story and mystery are important, too. To successfully "solve" a mystery requires a whole set of STEM practices: learning to ask good questions, high tech instrumentation, and using mathematics as a resource, etc. Practicing archaeology is kinesthetic, STEM orientated, and youth also love its hands-on approach. The above is just not for the realm of scientists. Our youngest scholars, such as the Waterford/Halfmoon Scholars, can be a part of such a scholastic journey with a whole lot of fun thrown in.



Flash! Bang! Pop! Fizz! with Carrie Mercogliano

Inspired by the book by Janet Parks Chahrour, explore simple and fun experiments, like Bubble Extravaganza - exploring bubbles, Radiant Color using chromatography, Fabulous Play Goop - observing a chemical change and the properties of the resulting substance, Delicious Ice Cream - Phase change, Rainbow in a Drinking Straw - observing density differences, and T-Shirt Designs using chromatography to make your own unique t-shirt.

Forensics with Joseph Biss III

Let's discover the World of Forensic Science as we explore some favorite Experiments with Mr. Biss.

- 1) How do you identify skeletal remains - Forensic Anthropology? Bag O' Bones - You get to put a Skeleton together!
- 2) Finger Prints -What are they - Why do we have them? What is unique about them? You will use simple household items like make up or artist brush, baby or cocoa powder, wide clear tape and index cards for find and lift Fingerprints!
- 3) What tool was used to make the mark - Tool Mark Identification? Using clay, you will find



and lift unique "tool marks" in the classroom and see if your classmates can figure out where they came from.

4) Blood Analysis- What kind of blood, whose blood, how did it get where it is? Using (Fake and Safe) blood you will discuss and perform some of the basic blood test and analysis the Forensic Scientist uses.

5) Gunpowder, projectiles, ballistics and fire arm identification. Where did it all start, how does a bullet fly and why? How can we match a bullet to the gun that shot it and what kind of gun was the robber carrying? These techniques have solved thousands of crimes over the years.

6) How can you prove a criminal was at the crime scene - DNA Fingerprinting? You will gear up and perform a DNA Fingerprint (Gel Electrophoresis) right in the classroom with the same basic techniques used in the big labs!!



Get Wild! with Wilton Wildlife Preserve & Park

In this interactive series students will build glacier models, conduct fire experiments, and meet live reptiles! This interdisciplinary course explores the unique plants and animals of the Sandplains ecosystem, including the endangered Karner Blue Butterfly. Over the six weeks, students will work together to conduct hands-on labs and experiments and create unique art projects. Join us to work with real mammal skulls and furs, sculpt clay birds, and play ecosystem games! Don't miss out on this wild series!

The Washington-Saratoga-Warren-Hamilton-Essex BOCES does not discriminate in its employment and admission to programs and activities as applicable, on the basis of actual or perceived race, color, creed, sex, sexual orientation, national origin, religion, age, economic status, marital status, veterans' status, political affiliation, domestic victim status, use of a guide dog, hearing dog or service dog, disability, or other classifications protected under federal or state law, and provides equal access to the Boy Scouts and other designated youth groups. The designated district compliance officers will coordinate compliance with the nondiscrimination requirements of Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Americans with Disabilities Act of 1990, as amended, the Boy Scouts of America Equal Access Act, and the New York State Human Rights Law.

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Burnt Hills- Ballston Lake STEM Academy Spring 2016 At Pashley Elementary School

Student Name: _____
Mailing Address: _____
City, St. Zip: _____
Grade: _____ School Building: _____ Teacher: _____

Parent/Guardian Information

Parent Name(s): _____
Home Phone(s): _____
Cell Phone(s): _____
E-Mail Address(s): _____

The following people, besides the above listed Parents/Guardians, are allowed to pick up my child:

Name: _____ Phone: _____ Name: _____ Phone: _____

- YES NO My child has permission to participate in STEM Academy and will follow the BOCES Code of Conduct.
- YES NO BOCES can photograph or videotape my child for publications and media.
- YES NO My child has permission to use the internet during STEM Academy and I have signed his/her home school Internet Usage Agreement
- YES NO I have custody of my child and there are no custodial issues (if there are issues relevant to the safety of your child, please provide details in the space provided below.

List your child's medical concerns and allergies for the STEM Academy staff: _____

Parent/Guardian Signature: _____

COURSE SELECTION- Students should register for one class which will include all four sessions.

****Please note grade levels of courses offered****

We will try to register you in your first choice, but classes fill quickly and it is not always possible,

Please list classes in your order of preference.

Please do not list any courses that you are not willing to take.

1. _____ 3. _____

2. _____ 4. _____

Cost is \$100.00 Registration deadline March 18, 2016

This is a first come, first serve basis so register early to ensure a spot. Since enrichment classes operate based on enrollment, we regret that tuition will not be refunded after April 6, 2015. Payment must be received by the district prior to the start of class.

Please send your registration form and check made payable to:
BHBL CSD to Burnt Hills - Ballston Lake District Office
Attention Jackie Martini at 50 Cypress Drive, Glenville, NY 12302.

Questions call 581-3585 or email:
giftedresources@wsweboces.org