



FFCHS SCIENCE



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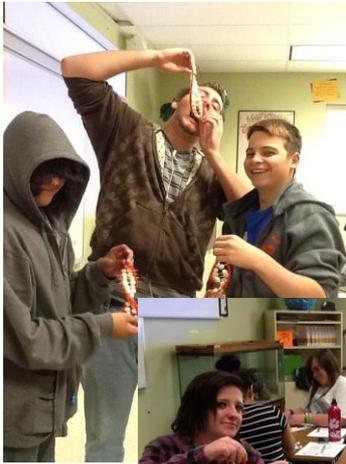
Science in Action!

Up Coming Events:

Oct 27-31: Red Ribbon Week

Oct 29: Parent Teacher Conferences 4-7pm

Nov 14: ½ day of School- End of term.



Left and bottom picture: David Hansen, Ben Lind, Brandon Ratliff, Kelsee Frodsham and Kaylee Spackman show off their edible DNA!



Above: Analia Evans gets ready to launch her rocket.

Right: Collette and Autumn show off their rockets.



Above: Hannah Horning, Michael Reed and Brandon Ratliff show the 3 stages of PTC tasting. Hannah can obviously taste it ☺

What we believe

We believe that all students may be motivated to succeed in science. It is our commitment to excite and support students in this process. We will use a multifaceted instructional program to accomplish these goals. This will include:

- Creating a **safe** learning environment.
- Recognizing and supporting the individual needs of **each** student.
- Providing hands-on demonstrations and laboratory experiences.
- Bringing the science of **today** into the classroom on a **daily** basis.
- Meeting the Utah Core Curriculum Standards.
- Using a range of student evaluation techniques.
- Interfacing with parents on a regular basis through both a science newsletter and periodic phone calls.
- Constantly challenging our students to push the envelope of their abilities.
- Showing each student that we **care** about their success.

What we offer

Currently we are teaching:

- Biology B- Genetics
- Earth Systems A
- Physics A



Classes to look forward to next term:

- Biology A- Cells
- Biology C- Evolution
- Earth Systems B
- Physics B
- Energy Foundations B
- Chemistry A



Contact us

We'd love to hear from you! Share with us any thoughts or questions you have!



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Species Spotlight:

Goliath encounter: Puppy-sized spider surprises scientist.

Piotr Naskrecki was taking a nighttime walk in a rainforest in Guyana, when he heard rustling as if something were creeping underfoot. When he turned on his flashlight, he expected to see a small mammal, such as a possum or a rat.

"When I turned on the light, I couldn't quite understand what I was seeing," said Naskrecki, an entomologist and photographer at Harvard University's Museum of Comparative Zoology.

A moment later, he realized he was looking not at a brown, furry mammal, but an enormous, puppy-size spider.

Known as the South American Goliath Bird eater (*Theraphosa blondi*), the colossal arachnid is the world's largest spider, according to Guinness World Records. Its leg span can reach up to a foot (30 centimeters), or about the size of "a child's forearm," with a body the size of "a large fist," Naskrecki told Live Science. And the spider can weigh more than 6 oz., about as much as a young puppy.



<http://www.foxnews.com/science/2014/10/20/goliath-encounter-puppy-sized-spider-surprises-scientist-in-rainforest/>

Extend your learning

Utah State University "Science Unwrapped"

Each Science Unwrapped event begins with a lecture and is followed by hands-on learning activities and exhibits. Each gathering begins at 7 pm in the Eccles Science Learning Center Auditorium (Room 130) on the USU campus. Each event is free and open to all ages.

"Matter of Patterns in Science" Series

Friday, Nov. 14: "Unwrapped Science on the Radio"

Mariah's class

We have had an enjoyable time learning about why we are the way we are. In Biology B we started with protein synthesis and practiced the process with an edible DNA lab. After that we moved into Mendelian Genetics and have had a great time looking at dominant and recessive traits. The students were able to test if they had the dominant trait by putting a treated strip on their tongue. PTC is a chemical that binds with proteins on the tongue differently. People will either experience a strong bitter taste, a slightly bitter taste or no taste at all. The difficult yet fun part of this unit were the Punnett squares and looking at possible characteristics of offspring.

Currently we are working on Genetic engineering and cloning. The students will be able to virtually clone a mouse. They will write a paper defending their stance for or against genetic engineering.

Our last unit will be the start of Evolution. We will begin by looking at Darwin and his big idea of evolution. We will do different labs on comparing organisms and looking at evidences of evolution. The students will make a butterfly and hide it in the classroom to see how natural selection works to help species survive.

Ryan's class

Ryan's Earth Systems A class is off to a great start this term. We have started out by studying the Big Bang Theory and the Nebular Theory. We have also explored how technology has furthered our understanding of the universe. In our first lab of the term, we learned about "Red Shift" in the electro magnetic spectrum. The students discovered how Edward Hubble used his observations of the abundance of "red shifted" galaxies to support the Big Bang Theory. Soon the class will return to Earth, where we will spend the rest of the term learning about the Earth's Structure and what makes our planet so unique in our solar system.

Rich's class

The Physics program has begun for the 2014-15 school year. We spent the first week in Physics A polishing math skills that will be necessary for success. Many students will have received their first exposure to trigonometry which will be an integral part of the study of vectors. A thorough understanding of vectors and how to manipulate them is key to being able to solve real life applications in Newtonian Physics. We then had thorough lectures and discussions regarding velocity and acceleration. We will be covering projectile motion in the next few days.

The students performed the first two of a series of specially designed laboratory experiences. In these labs, students gather data following in the footsteps of some of the greatest minds who ever lived. In the first lab students studied the contributions of Galileo Galilei by using a pendulum to calculate the value for acceleration due to gravity (free fall constant). They learned that the period of a pendulum (time it takes to make a complete trip) is not affected by the mass of the plumb bob. Galileo had this epiphany while watching a chandelier sway overhead in the Cathedral at Pisa (using his pulse as a timer).

In their second lab, students analyzed the motion of an object in free fall using a spark timer. They then used Excel (program) to write a professional report (including data tables and graphs) to display their findings. You would have been proud of how meticulously your students worked in completing this laboratory experience. There are three more labs to come!!!

Students were reminded several times that attendance is critical in the Physics program. If successful, students will take Physics A, B and C over three terms and may elect to take a concurrent enrollment Physics course (taught by me) for 4 credit hours of college credit. I am feel privileged to work with such great students! Thank you for being a part of our school!!!



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