Volume 4, Issue 2 January 2009



#### Special thanks to our major sponsors:











# Thinking about next year? We are!

Wildlands School is designed to have students incorporate a major area of study into all of their desired and required credit areas. This allows them to use their creativity to find innovative ways to learn. This style of learning has been available to the students of our area for the past four years at Wildlands Science Research School.

Students from the districts of Eau Claire, Altoona, Chippewa Falls, Fall Creek, Augusta, Menomoine, Stanley-Boyd, and Eleva-Strum currently attend Wildlands. It has proven to be a great learning experience for student from all over the Chippewa Valley.

Today charter schools, like Wildlands, present a progressive way to learn. As most people acknowledge, conventional school is not for everyone. With new innovations, schools are taking advantage of project/interest based learning. What better way for kids to learn than by exploring what they are interested in? A inventive learning system is what all students deserve, and that is

what we have established at Wildlands. Here, school is no longer class periods with a one size-fits all curriculum. Wildlands is a place of independence, creativity, and imagination.

Once again, we are accepting applications from students in 7th-12th grade for the 2009-10 school year during the open enrollment period of February 2-20. Wildlands School offers two different programs: Middle School and High School.

The Middle School program is designed for 7th and 8th graders, and works on a two year curriculum rotation process. Students participate in theme based project education, hands on exploration, and emphasized team building opportunities.

The High School program is available to mature and independent students in 9th through 12th grade. Full-time High School students in grade 9 12 will be able to earn credit in all core subject areas through projects and individual learning plans. We are once again plan-

ning to offer part-time enrollment to 11th and 12th graders that would like to concentrate on applied and advanced sciences. Part-time students would need to provide their own transportation to the school or field research site daily.

All core subject areas and state learning standards for each grade level are met through the innovative process of project based learning. For additional information regarding each of these programs contact Wildlands School, or attend our upcoming open house.

-Mrs. Seubert

**Wildlands School Open House** February 10th 6:30 to 7:30 p.m.

We are located in the Citizen Science Center Building at Beaver Creek Reserve.

Visit wildlandschool.net or call 877-2292 for more information.

**Open Enrollment Ends** February 20, 2009.

# Comparing O<sub>2</sub> Producers

Last year I watched a movie in which the main characters had to go to the sun in a spaceship to save earth. Since their journey was over a year long, they had to put a small garden of plants in the hold of the spaceship to continually replenish their oxygen supply. This got me thinking, which plants would be the most efficient oxygen producers? So I decided to do a project on it: I would measure the different oxygen outputs of Maple and Oak trees.

There are three phases to my project: measuring the

oxygen, calculating the area, and would be difficult because it extracting the Chlorophyll. I began the oxygen measuring phase by going out into the woods and picking an oak or maple with good leaves. I would put three leaves with an oxygen probe into a plastic bag and measure the changes in the level of oxygen. After each sample I would keep the leaves in my backpack for further calculations. After about three weeks of sampling I had 20 sets of data, which I had downloaded onto my computer for safe-keeping.

My next phase was calculating surface area. This

isn't your standard base times height math. All the points and lumps in the leaf would be hard to count, and would waste a lot of time. Thankfully, Mr. Tweed came up with a good, accurate procedure. I would take a picture of the leaf and download it onto the computer. Then I would open the picture in a special program, color it red, and measure the red in the picture using a special tool. It took me several hours over the course of a few days to finish this, but I finally did.

(article continued on p.3)

## What has the Middle School been up to?

#### A Walk though Time

On January 26<sup>th</sup>, the middle school class started on a project called, "A Walk through Time." Each group has a 50 year time period in history to research and present. We need to explore important events, influential people, wars that took place and changes that have happened over that time period to now. We have a variety of projects to complete with this information including: timelines, posters, Power-Points, and even a working replica of an invention!

We have ten days to finish the whole project. The nice thing about this project is that we are in groups so we don't have to do everything alone, though some projects must be done individually. This project is fun because we are exploring a variety of aspects of each time period and using great internet resources, like Newspaper Archives, instead of filling in worksheets and taking tests.

-Moriah Vlcek (7th grade)

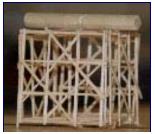
#### Afton Alps

On January 5<sup>th</sup>, Wildlands School had a lot of fun at Afton Alps. Afton Alps is a place to ski and snowboard. The trip included many students with experience and some people with no experience. Sure many people fell (especially the beginner snowboarders), sure some people were nearly DESTROYED by the bumpy part of some hills, but all in all it was very fun.

Afton Alps has chair lifts that take FOREVER to get to the top of the hill. It probably is terrifying for people who are afraid to heights to ride the chair lifts (no names included). But once you were at the top and making your way down the hill it was a fantastic way to spend the school day. I can safely say that the kids of Wildlands School had a good time at Afton Alps.

—Connor McCormick (7th Grade)

See pictures from Afton Alps on p. 6



(Example of toothpick cube)

#### **Toothpick Cubes**

A couple weeks ago, the middle school students and some of the freshmen made little cubes out of toothpicks and Elmer's glue. The cubes were only allowed to weigh up to 6grams total, and the goal was to see which cube would hold the most weight before breaking.

To test the cubes, we hung weights off of a wooden dowel that sat on top of the cube with a string that went through the center of the cube. The most weight that was held up by a cube was 200+ pounds, but the Freshman who built it kind of tweaked it a little, so they were not able to win the prize. Mrs. Seubert won the contest with her cube only weighing 6 grams and being able to hold 25lbs. But, Joe Konzen and Keegan Miller came in a close second, so they actually won the contest.

The middle school is now working on toothpick bridges and they will again be constructed with only Elmer's glue and toothpicks. However, this time they have to reach a particular span and be able to hold the weights.

-Esau Casetta (8th Grade)

### **Moto-4 Modifications**

Do you have any four wheelers? I have some, and for a school project, I have been restoring and modifying one of them—my 1989 Yamaha Moto-4 200. To most people who know about four wheelers, an old Moto-4 would not seem like a good machine to modify, but my Moto-4 means a lot to me and since it has been a good machine, I decided I would do it.

The first thing I had to do was clean every part of the Moto-4. To do that, I had to strip the Moto-4 down to the chassis and motor, and then I cleaned every part I took off of it by hand with a rag and water. This method worked great for most parts, but when I started finding oily parts, I

knew I would need to find another method. One oily part was the airbox; the waterproof plastic box that the air filter goes in. That was not the hardest part to clean; I just used soapy water. The frame and motor were very greasy and oily though, so I took it to a pressure wash (after making sure there was no way that any water could get into the motor). It really cleaned up nice!

Once I finished the cleaning, I started to put the Moto-4 back together and do the restoration and modifying at the same time. Some of the work I had to do was putting new suspension arms on the front and repainting the front end of the frame. I did several modifications; I put FLY-

Racing handlebars on it, put a UNI air filter in, and I chopped the end off the muffler and pulled the silencer and spark arrestor out of it (to give the Moto-4 better acceleration).

There are still a few things I have to do to the Moto-4; I have to buy new shocks, buy a rear fender and paint it, and paint my new front fender. After I finish those few things, I will have a very nice, fully restored and slightly modified Moto-4 (and some shop credit)! I will be done with the project very soon if all goes well!

—Asher Velin (10th Grade)

# Comparing O<sub>2</sub> Producers, cont.

(Continued from front page)

The last phase of my project is to extract the Chlorophyll. Chlorophyll is an integral part in the producing of oxygen in a plant, and how much there is could be related to how much oxygen is produced. In this last phase I cut out a centimeter from a leaf and grind it up in some acetone with Magnesium Carbonate. My next move is to put it into the centrifuge, followed by the spectrometer. I take a few readings from the spectrometer coupled with a few calculations to find the

amount of chlorophyll.

I am still in my chlorophyll extracting phase, and won't be done until late March. After that I will analyze and compare all my data to find a number of different results, such as ratios of chlorophyll to oxygen production, or oxygen production to total leaf area. I might go back this spring and collect a few more samples to analyze, but I will have to see what kind of time I have.

—Sam Larson (10th Grade)

# **Analyzing DNA**

Starting January 29, Devin Sprinkle, Nick Schmitt, and I started to work on the second half of the small mammal project; which is working with the DNA. The first step was to come up with a plan, and collect background knowledge.

The background knowledge is key. To learning about extracting DNA we are doing some worksheets that teach us how to use the equipment. We are also completing computer tutorials that will teach us more about DNA in general, and how it can be used to identify an animal.

—Max McCormick (10th Grade)

# American History in Film

At Wildlands the freshman and sophomore students, along with one junior, are taking American History in a non-traditional way. We study history one decade at a time through videos from The History Channel, large group discussions and presentation, as well as information from resources like NewspaperArchives.com.

We aren't using a text book, and most of the things we are learning about are emphasized when a student is excited about something they have discovered while exploring a topic. So far we have talked about, presented, and watched topics in American history from 1860

to about the 1920s. Some of the topics that we have learned about include: the Lincoln Assassination, the Chicago Fire, First Gas Powered Vehicle, the Wright Brothers, Kitty Hawk, and currently World War 1.

I have learned a lot in American History at Wildlands because it seems to be such a different way of learning. I that the teachers can't say, "Take out your history books". Watching the movies makes the historical events come alive and I feel as though I am experiencing history, instead of just learning about it.

—Derrick Lewallen (11th Grade)



Senior Nick Perkovich puts together a wall for a scale model of a house. Perkovich designed and drafted blueprints for the house, and scaled it all down so that he could create it out of balsa wood.

# Banding the Local Birds

Over the winter, I have been doing research on birds, and working with the volunteer bird banders at BCR. I am putting all my research in a computer program called Birds of North America, where I can find out any bird's height, weight, call, habitat, feeding habits, and location in North America.

The birds that I have been studying are common birds that you usually see in your backyard - like the Black-Capped Chickadee, Downy Woodpecker, Hairy Woodpecker, Red-Bellied Woodpecker, White-Breasted and Red-Breasted Nuthatch, or the American Goldfinch. Then there are birds that you might see, but are not as common as the above. Some of

these species include the Common Redpoll, Brown Creeper, Evening Grosbeak, and the Purple Finch. I collect information on the frequency of visits to the feeders by each species, along with the information the bird banders are able to collect when they catch a bird.

The bird banders have a variety of tools they use when banding: a couple of mist nets, (almost invisible nets with a lot of very small holes), a special ruler that measures the height of the bird's wings, different sizes of bands, (which are small, round pieces of metal that go around the birds' leg), a pair of pliers that can open the band up, and a weight measurer (in grams). All of these tools are

used to collect information about the birds that are caught in the nets before they are banded, and then set free again.

In order to start bird banding, you will need to learn how to get the birds in and out of the net, which can take time to perfect. However, to lessen the time of learning, there are bird banders that come to Beaver Creek Reserve every Thursday. You can go and watch them to find out information on how to get the birds out of the net and how to collect of the data that is required. They have been a great resource for me and my bird project so far. I will continue to work with them throughout the year and learn from them.

—Brandon Felton (11th Grade)

VOLUME 4, ISSUE 2 Page 3



Senior, Mike Kortness puts the finishing editing touches on his historical biography DVD. He interviewed WWII Vet, Willard Burgmeier, regarding his experiences fighting in WWII. He combined interview clips, still images from Willard and historical references, and music to create this DVD. Ask to see it the next time you are at Wildlands!

# A Little Bit of Inspiration

I've never liked to learn about war; death just never thrilled me much. When I learned that I could pick my own subject for history I decided that I wanted to pick a happy event. For history I finally decided that I wanted to research what I felt were ten of the most inspiring things of our century.

After paging though the book Life: Our Century in Pictures I picked out eight of the ten inspiring things I wanted to research. So far, I have chosen Elvis, Susan B. Anthony, John Muir, dry America, Walt Disney, man walking on the moon, the Titanic, and Jerome Kern & Guy Eddie. I still have to figure out two other inspiring topics

that I want to research.

With the ten topics, I want to explore why experts and historians feel they inspired America and perhaps how they even inspired the world.

I'm not fully sure how I will put it all together yet. I'm hoping to figure out a different small project for each topic and one big project with it all together. I still have a lot of work to do, but it's been a lot of fun looking into the past and finding things that have shaped the world we know now.

-Megan Raether (11th Grade)

# Spreading the Warmth

This past December, the Wildlands' 7<sup>th</sup> and 8<sup>th</sup> graders made tied fleece blankets. It was a community service project that everyone enjoyed participating in. This is the second year that they participated in this project

The Middle school class selected two pieces of fleece, cut approximately1 inch wide strips, 2 inches into the edges of the fleece and tied the strips together on all four edges. Once tied together the pieces of fleece became double thick warm blankets.

The 7<sup>th</sup> and 8<sup>th</sup> graders used monetary donations from parents and teachers to purchase the fleece material, as well as fleece donated by Jeff Hadorn and Letecia Papke, and the Vlcek's, to make the blankets. We appreciate the donations that were made by parents to make this service project possible.

The 7<sup>th</sup> and 8<sup>th</sup> graders had no problem finding two groups who were willing to find deserving people who genuinely could use the blankets. Bethesda Lutheran Church and the group

called Pay It Forward were given the fleece blankets to give away to those in need of warm blankets. The 7<sup>th</sup> and 8<sup>th</sup> graders enjoyed spreading the warmth to com-

munity members in our area.

-Damin Hadorn-Papke (7th Grade)



#### **US** Armed Forces

A little while ago, as a short history project, I decided to investigate the United States Armed Forces. For this project, I looked into the origin, some of the requirements, and certain unique aspects of each division of our military. I've always been interested in the military and I think that I learned a lot with this project.

One thing that I came across is the ASVAB test (Armed Services Vocational and Aptitude Battery), which is a test required of all military recruits in each section of the military. It covers General Science, Arithmetic Reasoning, World Knowledge, Paragraph Comprehension, Mathematics, Electronics Knowledge, and Mechanical Comprehension.

Something that I learned about the Army was that it was the very first division of our military to be founded. It was founded on June 14, 1775 as the 'American Continental Army,' with George Washington as its first commander.

I found that the Navy was the second division to be founded, on October 13, 1775. At first, it was thought to be temporary, and was shut down after the American Revolution. However, in 1794, after pirate attacks and increasing international conflict it was brought back as a permanent division of the military.

One thing about the Marine Corps (the third division to be founded, on a separate military division until 1947. November 10, 1775 as the 'Continental

Marines') is that it is the only division of our military held with the responsibility of guarding US embassies around the world.

I also found that the US Coast Guard was originally a combination of former federal services the 'Revenue Cutter Service' and the 'Life-Saving Service' in 1915. At that time, it was part of the Treasury Department, then it was part of the Department of Transportation, and now it operates under the Department of Homeland Security in times of peace, and under the Navy in times of war.

Lastly, I found that the US Air Force was originally the US Army Air Corps in the 1920s, and wasn't founded as

—Riley McCormick (9th Grade)

# DATES TO REMEMBER

#### **FEBRUARY EVENTS**

- February 2nd— First day of open enrollment
- February 4th— Early Release/No School
- February 5th— Ice Skating at Hobbs (Eau Claire) MS - Overnight at BCR with stargazing
- February 10th– Open House 6:30—7:30pm
- February 13th—Coffee Mill Ski/ Snowboarding Trip
- February 14th—Happy Valentines Day!
- February 20th—LAST day to open enroll.
- February 24th—Parent/Student/Teacher Conference.

#### FEBRUARY 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

#### **MARCH EVENTS**

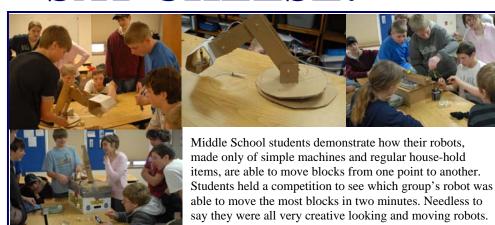
- March 2nd—Cascade Mountain Ski/Snowboarding Trip
- March 4th—Early Release/ No School
- March 16th–20th Spring Break/ No School

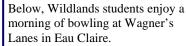
## **MARCH 2009**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
I	2	3	4	5	6	7
3	9	10	11	12	13	14
15	16	17	18	19	20	21
2	23	24	25	26	27	28
9	30	30				

VOLUME 4, ISSUE 2 Page 5

# **SAY CHEESE!**









Left, Joe Konzen seems to really enjoy the task of having to keep score by hand. Bowling is part of the physical education curriculum

at Wildlands—after all, it is a life long sport!





Good times had by all at Afton Alps in Stillwater, MN. (L-R) Jordan Miller gives a wave from the chair lift, Damin Hadorn-Papke enjoys the views from the top, Sam and Molly Hurt take in a day of sibling bonding, and Esau Casetta and Keegan Miller get set for the trip down the mountain. Above Right, Connor McCormick stays warm on the chair lift. Downhill skiing is another piece of the Wildlands PE curriculum.

# **Special thanks to our school supporters**

- -Charter Bank Eau Claire
- -Mega Pick and Save
- -Scott and Deborah Humrickhouse
- -Ted and Jan Tweed
- -Terry and Susan Miller
- -Walter's Buildings, John Kelly
- -Chuck Forseth
- -Tom Crow
- -Rick Koziel

- -Herb Comstock
- -Robin Walsh
- -Ken Frost
- -Gary Speich
- -Mary Beth Wold at Dean and Associ-
- -Paul and Joni Holmes
- -The Beaver Creek Staff
- -Lake Eau Claire Association

These supporters have made contributions of \$50 or more to support student projects and field work.

# Honey Sale

#### WE'VE EXTENDED OUR SALE!

We are selling 100% natural honey. This is homemade, raw, organic Apple Blossom Honey that is made right here in Fall Creek by the Miller Family! Profits from the Honey sale benefit Wildlands Student Activities.

Sale ends March 4th, 2009.

Honey is available in 8oz jars for \$5.00.



If you would like an order of honey please mail money and form to:

Wildlands School E19320 Bartig Road Augusta, WI 54722

First and Last Name	Full Address	Phone #	Quantity

VOLUME 4, ISSUE 2



Augusta School District E19320 Bartig Rd August, WI 54720 www.wildlandschool.net

Phone: 715-877-2292 Fax: 715-877-2234

Email: Wildlands@august.k12.wi.us

# Help Support 3

#### Wildlands sch##L

#### **Donation Amount**

\$10 \$20 \$25 \$35 \$50 Other

#### Wildlands needs your support.

Wildlands has established a 501c(3) non-profit organization to support student research and activities. If you would like to help us provide students with unique learning opportunities please use the form below. All donations are tax deductible.

#### Indicate how you'd like your donation to help Wildlands!

equipment/supplies	fieldwork/fieldtrips
student scholarships	Wildlands can decid

Your donation to Wildlands School will provide students with up-to-date research equipment, support field work opportunities, fund local fieldtrips, or support our senior scholarships. Anyway you look at it, the money directly helps our students.

#### **Benefits of supporting Wildlands:**

- 1. With a donation of \$50.00 or more, you will be recognized as a contributor in our Wildlands' Newsletter.
- 2. With a donation of \$500.00 or more, you will be recognized on our Wildlands' Equipment Trailer as a Major Contributor.

Name of Contributor(s):

Address:

(Internal use only. We will not give away or sell your information)

#### Thank you for your support!

Mail this section with your donation to:

Wildlands School \* E19320 Bartig Road \* Augusta, WI