

STARBASE NEWSLETTER



November 2022 - February 2023 - Issue 5

STARBASE Welcomes classes from 4Gs, Clancy, Broadwater, Jefferson, and Hawthorne Elementary Schools



Four Georgians Elementary students from Ms. Heaton's class participating in an activity that has them exploring different forms of energy.

STARBASE Fort Harrison has wrapped up their first half of the school year with visits from ten additional classes. November saw us welcome the three 5th grade classes from Four Georgian's (4Gs) Elementary School. Ms. Heaton, Mrs. Hoovestal, and Mrs. Lyndes visited with their students and had great experiences. A parent of one of our students had the following to say, "My kid loved all of it! The teachers, the activities, the nicknames, the dog tags... it's hard to get him to say much about his school day but had so many great things to say about STARBASE without being prompted. He even asked if he could pay the teachers money out of his allowance to thank them for such a fun week. Great job!". It is wonderful to hear such positive feedback from our students' parents. Fortunately, the STARBASE program plans to continue to function without fiscal donations from student allowances.

In This Issue

Students from 4Gs, Clancy, Broadwater, Jefferson, and Hawthorne Elementary Schools visit STARBASE

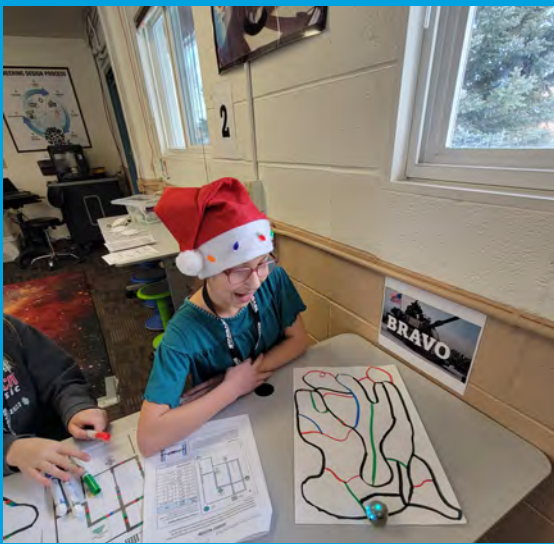
Student, Elizabeth Decker, overcomes adversity through use of technology

Staff Spotlight: Michael Vannatta

STARBASE partnership with Shodair Children's Hospital

STARBASE partnership with Montana Military Museum

STARBASE Summer Camps will be opening for registration soon



Broadwater Elementary School students from Ms. Brown's class engaged in a lesson involving Ozobots.

We hosted just under 80 students from Four Georgians (4Gs) Elementary school. Ms. Heaton, an educator at 4Gs, said, "I love STARBASE's approach of using hands-on, inquiry-based learning while building communication skills and positive teamwork skills at the same time. Students are excited and empowered to try new things and do their best." We enjoy hearing the positive feedback, thank you Ms. Heaton.

The end of November and beginning of December was marked by the return of Clancy School 5th grade students. It has been a number of years since the Clancy students could join us at STARBASE and the students and their teachers really enjoyed the experience.

Visiting Classes by the Numbers

**Four Georgians Elementary:
77 students**

Clancy Elementary: 46 students

**Broadwater Elementary: 44
students**

**Jefferson Elementary: 43
students**

**Hawthorne Elementary:
47 students**

Students from Broadwater Elementary School experienced STARBASE during the months of December and January. A Broadwater student who went by the callsign "Khro" had the following to say about their STARBASE experience, "STARBASE is very encouraging for when you are working and have a hard time with something, and you if fail the first time they will encourage you to try again." It is affirming to hear that STARBASE is making impacts that go beyond STEM subject matter. The conclusion of January and February brought the students from Jefferson and Hawthorne Elementary Schools to STARBASE.

All the students who visited us these last few months were able to experience guest lectures from visiting STEM professionals. Part of our curriculum is to expose our students to STEM careers and we are grateful for our volunteers who make that happen. The following professionals gave talks to students:

Educator

Engineer

Education Director

Education Program Assistant

Drone Pilot

Simulation Specialist



STARBASE Fort Harrison Student Overcomes Adversity with the help of Technology

STARBASE Fort Harrison recently welcomed Mr. Fairclough's class from Jim Darcy Elementary School. If you were to visit during this time, you would see what you always see at STARBASE: youth actively engaged in hands-on STEM learning, working together in teams, and a lot of conversation around STEM concepts and project planning. The STARBASE motto of "hands-on, minds-on" is obvious to any observer. You would barely notice the microphone system hanging around the necks of STARBASE staff and sitting on the table in front of student Elizabeth Decker.



Elizabeth, alongside STARBASE instructor Kaylee "Hollywood" Nathe, participates in an engineering lesson called BridgeQuest.

Elizabeth has been interested in science from a young age. Her favorite books are the Catstronauts series, which entails the adventures of a group of astronaut cats. She really enjoyed her time at STARBASE and loved learning about all kinds of STEM subjects. Her parents, Jon and Andrea, said she updated them everyday about her STARBASE lessons. Elizabeth completed two lessons that she particularly enjoyed at STARBASE. The first one involved learning about the states of matter that culminated in a parachute class activity. The second lesson was centered on Newton's Laws of Motion and concluded with students building and launching rockets built constructed from drinking straws.

STARBASE Fort Harrison staff was thrilled to ensure Elizabeth's success at STARBASE by utilizing the microphone system, which transmits wirelessly to Elizabeth's hearing aids she's had since she was nine months old. Since Elizabeth was born without fully developed hearing, the microphone/hearing aid system has helped her fully engage in her classes since Kindergarten. The STARBASE staff was grateful to spend a week with Elizabeth and guide her journey for STEM learning and discovery. The staff was delighted to be part of Elizabeth's passion for STEM and to learn a new technology for student success.



Elizabeth, at the STARBASE Fort Harrison fall Open House event, building models of molecules with a set of Happy Atoms.

Staff Spotlight: Michael “Doc” Vannatta

Michael Vannatta has been the Director at STARBASE Fort Harrison since 2014. He is a native of Great Falls, Montana, and received his undergraduate degrees at Carroll College. He continued his education at the University of Washington where he earned his graduate degrees. Dr. Vannatta is retired from the United States Navy where he studied in both the Nuclear Power and Naval Academy programs. He is the father of a son and daughter, who both attended STARBASE during their younger years. Dr. Vannatta was a Visiting Assistant Professor of Chemistry at West Virginia University before moving back to Montana and working for STARBASE Montana.



STARBASE Fort Harrison
Director Michael “Doc” Vannatta

We conducted an interview with Michael to get his perspective on being the Director of the STARBASE Fort Harrison program:

What led you to becoming involved with the STARBASE Montana program?

I was quite excited when I learned about the STARBASE program. I have always been passionate about both education and STEM so it seemed like a perfect fit. The fact that the program is funded by the Department of Defense and occurs on Fort Harrison National Guard post was a great add on. There isn't a day that goes by that I'm not grateful to be employed by such an impactful and important program. Being able to work with 5th grade students day in and day out sure makes my job a lot of fun.

What does the Director's role encompass at STARBASE?

A large part of my job in ensuring our program is in compliance to both the Department of Defense, the federal agency that provides our funding, and the Department of Military Affairs of the State of Montana, the agency that administers our program. This is multifaceted, but basically it means we are following the policies that have been put in place to ensure our program is operating in a way that gives the best experience for our students and community. There is a lot of data collection and reporting that I need to do to demonstrate, both to the national and state congress, that our program is a good investment of citizen tax dollars.

Another part of my job is to support my teaching staff as well as the visiting students and teachers. This entails having all the proper supplies and equipment we need to make the STARBASE experience impactful and memorable.

What are your goals for the STARBASE Fort Harrison program in the coming years?

Well, first and foremost, my staff and I are constantly looking for ways to improve the STARBASE experience and the lessons we teach. We serve around 1000 students per year at this location and, therefore, need to ensure all students are successful in both their gaining and retention of knowledge within the STEM disciplines.

I'd like for us to continue to expand our STARBASE 2.0 programs as well as community partnerships. We partner with great local organizations to serve our local students such as the Helena Indian Alliance, Shodair Children's Hospital, and the Department of Health and Human Services. We also work closely with each elementary and middle school within the greater Helena area and are always trying to find ways to strengthen those relationships and, consequently, our ability to serve our students.



STARBASE
MONTANA

What are your favorite lessons that are taught to the students each week and why?

This is a difficult question to answer because each lesson the students experience is carefully designed to be engaging and stimulating. Nevertheless, my favorite lessons for students to experience are the ones that center on chemistry and engineering. I am a chemist by training so I'll admit my inherent bias towards chemistry, but understanding chemistry is a cornerstone of understanding how our world works. Students start to learn the basics of atoms and molecules while at STARBASE and I hope that carries over into their future where they choose to learn more.

I enjoy observing the students engaged in engineering lessons because, at the very heart of it, engineering is problem solving coupled with teamwork. Problem solving, and the ability to work as part of a team, are skills that will serve the students their entire lives. The beauty of engineering lessons at STARBASE is that it teaches students to be resilient and that failing is okay. Being resilient in the face of failure is key to life success.

What do you enjoy most about your job?

This question is an easy one to answer. It is, without a shadow of doubt, the students. 5th graders are unique in that they are still "kids" but are starting to embrace who they are and who they want to be as adults. They still celebrate the small victories that so many of us adults just take for granted. They are immensely curious and have a natural love of learning about things that are new to them. They love to laugh, be goofy, and silly. They remind me that happiness really is in the little moments of life.

As I mentioned earlier, my staff and I focus on ensuring each student is successful at STARBASE. Every student has different abilities and success doesn't look the same for everyone. Being able to observe and celebrate their successes each week is very fulfilling. Our lessons at STARBASE occur within the STEM disciplines but students learn so much more than that while they are here. They learn persistence, patience, how to be good leaders, and how to be good followers. They learn what success looks like.

“Our lessons at STARBASE occur within the STEM disciplines but students learn so much more than that while they are here. They learn persistence, patience, how to be good leaders, and how to be good followers. They learn what success looks like.” - Michael “Doc” Vannatta

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STARBASE Fort Harrison forms partnership with Shodair Children's Hospital to provide STEM Programming to Resident Patients.

Shodair Children's Hospital was founded as a home for orphaned and abandoned children in 1896 and has been serving Montana children ever since. Today, the organization provides acute, residential, and outpatient psychiatric care for Montana children and adolescents, and clinical/laboratory medical genetic services to residents of all ages.

Shodair provides three developmentally specific residential treatment programs for middle school and high school children. Each program provides a safe, therapeutic, and nurturing environment to promote positive change. As part of that program, the resident youth are enrolled in an educational curriculum to ensure they don't lose academic progress during their treatment. Last year, STARBASE Fort Harrison began exploring the possibility of partnering with Shodair to enhance the educational curriculum that residential students are experiencing. On January 17th and 18th of this year, the STARBASE staff provided 14 hours of STEM programming to approximately 15 residential students. Students learned how to program various robots and participated in engineering lessons. Dr. Michael Vannatta, the Director of STARBASE Fort Harrison said, "It was a wonderful couple of days working with the students. The students were fully engaged in the activities and were encouraging to each other while problem solving and learning. My staff and I look forward to another visit in the near future".



STARBASE Fort Harrison Instructor/2.0 Coordinator Kinsey Vavruska, STARBASE Fort Harrison Director Michael Vannatta, and Shodair Children's Hospital Educator Robbie Radakovich.

Robbie Radakovich, one of the Shodair educators, spends many hours with the students while guiding them on their academic lessons and goals. It was a unique opportunity for him to see them in a different academic setting. When reflecting on the experience, Robbie had the following to say, "The overall experience working with Michael and his team was awesome. Our students were immersed with a hands on, interactive, experience that encouraged problem-solving skills and teamwork. When asked if Michael and his team should come back in the future we were met with a 5 star review by all the students. I am excited to continue to grow our partnership with the Starbase STEM program here in the Helena Community."

The educators at STARBASE Fort Harrison and Shodair are committed to continuing regular collaboration to serve the residential students. With the new Shodair Hospital building opening recently, it is an ideal time to continue growth and expansion of the partnership.

Montana Military Museum Partners with STARBASE Fort Harrison to enhance student's STEM educational experience



The Montana Military Museum is located on the Fort Harrison Army National Guard base, just west of Helena, Montana. The building is a short walk from STARBASE Fort Harrison.

Fort Harrison was first established in 1892 and garrisoned by troops from Fort Assiniboine in 1895. It was also used to assemble volunteers for the Spanish American War in 1898. It remained an active army post until 1913. Its subsequent history included acting as a mustering site for Montana troops bound for the Mexican Border Campaign of 1916 and France in 1917. It served as a training site for National Guardsmen between the two world wars and continues today. The Fort is probably best known outside Montana as the home of WW II's First Special Service Force (FSSF). Nicknamed by German forces, "The Black Devils or Devil's Brigade" at Anzio during the Italian Campaign, the exploits of those soldiers are considered the lineage for today's Special Forces who continue to train here.



Mr. Raymond K. Read, a Vietnam U.S. Army Special Forces veteran, is the Director of the Montana Military Museum.

The driving force for the creation of this museum came in the mid-1980's from veterans from two of the World War II units highlighted in our museum: the 163rd Regiment of the Montana National Guard who fought in New Guinea and the Philippines and the Canadian-American First Special Service Force who were formed and trained at Fort Harrison and fought in Italy and France. In addition to those units, the museum also recognizes the sacrifice and service of Montanans in the Navy, Marines, Air Force and Coast Guard.



A M-60 Patton tank displayed in front of the Montana Military Museum. The tank was in service for the U.S. Army from 1959 - 1997.

STARBASE Fort Harrison and the Montana Military Museum have partnered to allow STARBASE students to regularly visit the museum during their STARBASE week. Students are exposed to the integration of science and technology within the military by visiting the museum. One example, is the evolution of communication technology throughout military history from telegraphs, to radio, to satellites. Furthermore, the technology of observation is on display at the museum from the spy glasses of the 1800s to drones used in the modern military. Students learn about the Lewis and Clark expedition, which was a military operation that was highly focused on science and exploration of the west. Technology was integral to mapping the territory that would become the Louisiana Purchase and forever change the United States.

Ray Read, the Director of the Montana Military Museum, is thrilled to get young people in to see the exhibits. Ray is passionate about history and specifically the military history of Montana. He enjoys observing the students engaged in the history of their home state and learning about the contributions of Montanans to US military history. He reflected on what is important to him in regards to having young students visit the museum and said, "We appreciate being able to interface with students in their learning, to pass on our knowledge, and to prevent mistakes we have made in the past".

Michael Vannatta, the Director of STARBASE Fort Harrison, has appreciated the museum being such a valuable resource to further enhance the STARBASE curriculum. Michael reflected, "The museum is part of our "career field trip" rotation where students visit different facilities on base to be exposed to the integration of STEM within military careers. The vast majority of students are exhilarated during their museum visit. They learn so much and being able to see artifacts and displays really helps them retain the information. The fact they can learn about history while exploring military STEM careers over the years is such a bonus.

The Montana Military Museum is free and open to the public on Thursdays. More information can be found on their website located here:

[Montana Military Museum Website](#)

Fort Harrison STARBASE Summer Camp Dates Announced

June 12 - 15: Helena Indian Alliance - STARBASE STEM Camp

Students who are affiliated with a Native American tribe/s are eligible

Students entering 4th - 7th grades, registration is open

June 19 - 22: Military Kids STEM Camp

Students who are dependents of military personnel are eligible

Students entering 4th - 7th grades, Registration is open

August 7 - 10: Pre-ETS-STARBASE STEM Careers Camp

Students entering 9th - 12th grade with a disability are eligible

Registration is open

[REGISTER FOR CAMPS HERE](#)