

STARBASE NEWSLETTER



August - October 2022 - Issue 4

STARBASE Welcomes classes from Warren, Jim Darcy, Helena Christian, and Central Elementary Schools.



Jim Darcy Elementary students from Mrs. Strom's class participating in an activity focused on atoms and molecules. The students model molecules with ball and stick kits.

STARBASE Fort Harrison is well into the new school year having hosted eight classes thus far. Helena Christian students from Mrs. Hogan's class started the year off and were a wonderful group of kids our first week. We are grateful to be able to serve our local private schools in addition to students from the Helena Public School District. Students from Warren Elementary School visited us in the middle of September. Warren teachers Mrs. McNay and Mrs. Klemp have brought many classes to STARBASE over the years and it is always a pleasure having them in our building. Holly Manning, a Warren Elementary student parent, exclaimed, "STARBASE was a huge hit in our house. She came home excited about not only what they did during the day, but also excited about working towards earning those dog tags! She absolutely loved the hands-on learning!" Hands-on learning is a pillar of our curriculum and we love hearing how effective it is for students.

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STARBASE 2.0 programming back up for the fall.

The Adjutant General of Montana visits Mr. Napoletano's class at STARBASE

SAVE THE DATE: STARBASE Open House announcement



Warren Elementary students from Mrs. McNay's class visit the Montana Military Museum at Fort Harrison during their STARBASE week.

Visiting Classes by the Numbers

Helena Christian: 19 students

Warren Elementary: 47 students

Jim Darcy Elementary: 82 students

Central Elementary: 24 students



The end of September brought us our first Jim Darcy class, as the students from Mrs. Guse's class joined us for a week. It was Mrs. Guse's first visit to STARBASE and we were glad to welcome her. The students from Mr. Fairclough and Mrs. Strom's classes at Jim Darcy Elementary School visited us in October. It was Mr. Fairclough's first visit to STARBASE while we welcomed back Mrs. Strom. The students were fully engaged in STEM activities and lessons throughout their weeks while learning about all kinds of topics. One student, whose callsign was "Nugget", had the following to say, "I absolutely loved STARBASE and am so interested in STARBASE 2.0. I love STEM activities and could never be happier with my experience. I would go home and tell my parents about what a great day I had at STARBASE and how much I wanted to go to STARBASE 2.0!" It is wonderful to get feedback from our students about their experience at STARBASE and their interest in our STARBASE 2.0 program.

The end of October marked the week Central Elementary students from Mr. Napoletano's class visited us. Mr. Napoletano is the upper Montessori teacher at Central so we had a mix of 4th and 5th grade students. They got a surprise visit from the Adjutant General of the Montana National Guard. There will be more about that later in this newsletter issue.

All the students who visited us these last couple 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:

**Cultural Records Manager
Marketing and Visual Services Director
Energy Resource Professional
Physician and Science Educator
Software Engineer**

STEM Education Best Practices in Action

The STARBASE curriculum, activities, and lessons are deeply rooted in best educational practices for teaching STEM (Science, Technology, Engineering, and Math). This article discusses three pillars of learning that students experience while at STARBASE.

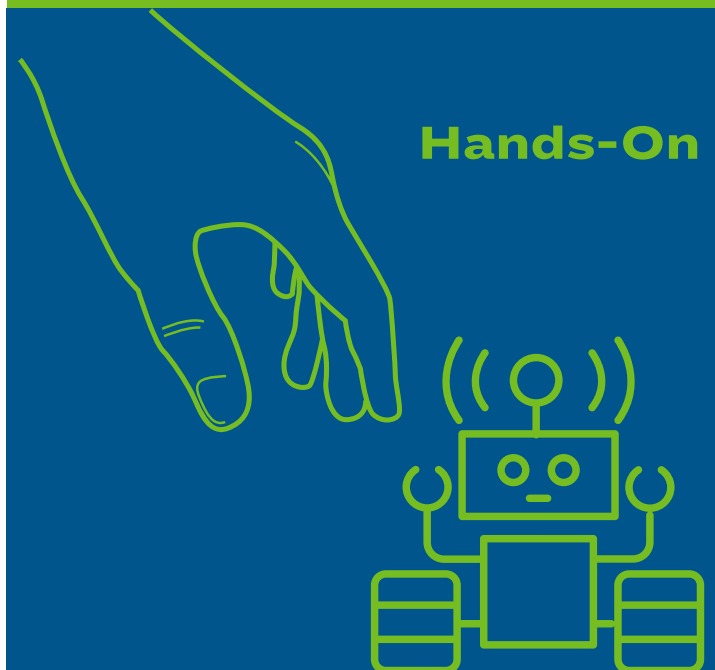
Inquiry-based learning, at its heart, is centering a lesson or activity on the student rather than the teacher. Students drive the learning by problem solving, experimenting, and exploring a central question or set of questions. Students become more invested in the process, connect what they are learning to existing knowledge, and form deeper understandings of concepts. Additionally, inquiry-based learning empowers student voices and choices, as well as building skills in perseverance and resilience. Every lesson and activity at STARBASE is focused on inquiry-based learning. The STARBASE staff serves more as guides to learning than traditional instructors by letting students obtain their own knowledge through actions.

Hands-on learning coupled with teamwork are the other two staples of the STARBASE experience for students. Students, on average, typically complete 27 lessons/activities during their week of STARBASE. All but one of those lessons/activities involve teamwork and all of them are hands-on. Hands-on learning engages both hemispheres of the brain, leading to better retainment of information. Additionally, nearly 40% of students naturally learn better by using their hands as opposed to hearing & seeing information. Another benefit of hands-on learning is that it encourages teamwork, collaboration, and critical thinking.

Working in small groups and teams helps students develop social skills, listening skills, and reduces bullying in the classroom. This is imperative as nearly all occupations require adults to work with teams. The STARBASE staff prides itself on engaging students and empowering all types of learners to succeed.



Inquiry-Based



Hands-On

Teamwork



Staff Spotlight: Kinsey “Newton” Vavruska

Kinsey Vavruska has been an instructor at STARBASE since 2019. She is a native of East Helena, Montana, and received her undergraduate degrees at Montana State University. Since high school, Kinsey has been educating students in STEM at ExplorationWorks and has been having a blast since. She landed her first professional teaching role at STARBASE. Kinsey has a dual role at STARBASE Fort Harrison in that she serves as the 2.0 Program Coordinator for the program as well as an instructor. She splits her time between 2.0 program duties and instructing the visiting students. Kinsey enjoys playing board games, spending time with family, and encouraging students to pursue STEM.

We conducted an interview with Kinsey to get her perspective on being involved with the STARBASE program:

What made you want to be a teacher?

I have always loved learning and problem solving. I had countless teachers that made a huge impact on my life. From a young age, I developed a passion for encouraging others to find the same enjoyment from learning and assisting them where they are struggling. My high school calculus teacher observed me teaching my peers one day and asked if I ever considered becoming a mathematics teacher. I have not looked back since.

STARBASE is a unique “5th” grade classroom within the HPSD. What are the unique challenges and rewards you have experienced as a STARBASE instructor?

STARBASE is a very unique teaching position in that we have different students every single week, though our classroom stays the same. One of the biggest challenges as a STARBASE instructor is quickly building relationships with our students then saying goodbye after only five days. However, I enjoy getting to meet and teach every single 5th grader in HPSD and surrounding districts. I have the honor to teach thousands of students hands-on, minds-on lessons, knowing our paths will cross again soon. I love seeing the spark in my students’ eyes when they finally understand and igniting a passion for STEM.



Kinsey “Newton” Vavruska is the 2.0 Coordinator and instructor for STARBASE Fort Harrison.

You are the 2.0 Program Coordinator for our STARBASE site, and you now have four clubs that are active in Helena, East Helena, and Clancy. What are your goals for this year and for the years to come?

I am excited to get our 2.0 program up and running at full capacity again after our short break during the start of the pandemic. This year, I am focusing on bringing in many different areas of STEM with separate weekly challenges in hopes of reaching the interests of all the students in the program. There are many STEM careers paths out there, not just one. In the next few years, I hope to develop more hands-on, minds-on curriculum with this goal in mind, and further expand our 2.0 program to include the Montana City and Townsend school districts. I am excited for STARBASE to release its 3.0 program, which expands outreach to high school students.



STARBASE
MONTANA

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

I love that every lesson at STARBASE focuses on the different areas of STEM and gravitates towards a hands-on, minds-on approach. We have many lessons where students rotate through stations, as small groups, and build their own knowledge through discovery. I enjoy teaching lessons where I get to share my love of the Engineering Design Process and see the pride on their faces when they test their final products. Other lessons, I watch the pure joy as students work together to solve clues to unlock a box using skills they learned throughout the week. All our lessons allow me to take the role of a guide, rather than the source of answers, as students explore, get creative, and achieve goals they once thought they were incapable of.

You attended the National Science Teaching Association Conference in Chicago last summer. What were some things you learned about that you were excited to implement at STARBASE?

I learned so much at the NSTA Conference concerning best teaching practices, ways to support my students, and countless resources. I am looking forward to implementing many of the lessons and resources from the conference into our 2.0 program. Many exciting products presented at the conference allowed students to delve further into the world of engineering by incorporating a mix of technology and creativity. I wish all teachers had the amazing opportunity to attend the NSTA Conference and further their own education.

I enjoy teaching lessons where I get to share my love of the Engineering Design Process and see the pride on their faces when they test their final products.” - Kinsey “Newton” Vavruska

STARBASE 2.0 Clubs Start Their Fall Session



HMS students, “Thing 1” and “Thing 2,” show off their silly scientist sides as they concoct a new slime recipe.

STARBASE 2.0 clubs at Helena Middle School (HMS), C.R. Anderson Middle School (CRA), East Valley Middle School (EVMS), and Clancy School are off to a great start for their Fall sessions. STARBASE 2.0 is an after-school middle school STEM program designed to nurture students’ curiosity and skills surrounding STEM. The program utilizes community volunteers as STEM coaches to assist students with their projects, encourage team building, and promote problem solving.



CRA Middle School students, “Shrimp,” “Fordraptor,” “Chilly,” and “Sundew,” celebrate as they complete the Pipeline challenge.

One of the volunteer mentors at CRA said, “This is my third year volunteering for the 2.0 program. I love how creative students get in their solutions when they work as a team. The students are so engaged when they are tackling the different problems, then you see one student with a spark of excitement and the rest of the team helps make it happen.”

There are 20 students at HMS, 25 at CRA, 7 at EVMS, and 10 at Clancy School participating in the clubs this Fall. “Prodigy,” an EVMS student, said, “I was inspired to join STARBASE 2.0 because I had a lot of fun when I attended STARBASE in 5th grade. My favorite part about 2.0 is that I get to hang out with my friends and learn about STEM. I’m learning, but it doesn’t feel like I am!”

STARBASE 2.0 CLUBS BY THE NUMBERS

- Helena Middle School - 20 students
- C.R. Anderson Middle School - 25 students
- East Valley Middle School - 7 students
- Clancy School - 10 students

STARBASE Fort Harrison is grateful for their Helena Public School District teacher liaisons, Mrs. Mooney at HMS and Mrs. Currier at CRA, for providing their classrooms as spaces for the clubs to meet. The clubs meet once a week for ten weeks during Fall and Spring sessions as students explore different areas of STEM in weekly challenges. STARBASE is also grateful for the community STEM mentors who are volunteering their time to work with the students during the 10-week sessions. STARBASE 2.0 could not exist without the support of our community STEM mentors, and we are thankful they are willing to invest their time and skills into our students and help shape their career paths.

WANT TO JOIN THE FUN?

Become a STARBASE 2.0 Mentor.
Make an Impact Today!

Contact Kinsey Vavruska:

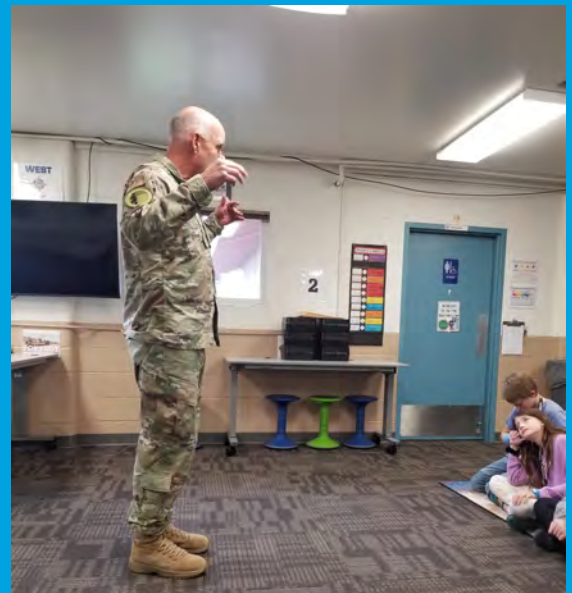
kvavruska@helenaschools.org or (406) 459-4720

The Adjutant General of the Montana National Guard Visits Mr. Napoletano's class during their STARBASE week.

The Adjutant General (TAG) of the Montana National Guard, Major General Pete Hronek, stopped by STARBASE to visit the students of Mr. Napoletano's class near the end of October. MG Hronek is also the Director of the state of Montana's Department of Military Affairs, which administers the STARBASE program.

MG Hronek was appointed TAG of Montana by Governor Greg Gianforte and took command in January of 2021. Since his appointment, MG Hronek has been an adamant supporter of the STARBASE program. The General stopped by to observe and speak to Napoletano's students as a demonstration of his continued support for the program.

Students were participating in a "Breakout Box" lesson when the General stopped by, working together in small groups solving clues to locks that would lead them to a reward. Afterwards, MG Hronek spoke to the class about his career as an Air Force aviator. Mr. Napoletano said "MG Hronek was genuinely curious and engaged with the kids work, which everyone loved. Then he patiently took the students questions, having fun with them and teaching them the importance of STEM in the military and everyday life." The STARBASE staff is thankful to MG Hronek for devoting some of his time to visit their students.





Lego Spike Prime robots, a staple of the STARBASE technology curriculum.



The STARBASE building (121) located on the Fort Harrison National Guard Army base.

STARBASE Fort Harrison Open House Event Planned

Has your child attended or is scheduled to attend STARBASE this year? We are hosting an open house event to give students and their families a chance to see our facility. This event is open to the public and all are welcome. Please come and meet the staff, see our classrooms, and participate in some fun STEM activities. STARBASE Fort Harrison is located on the Fort Harrison National Guard base on the west end of Helena. The base is located west of the Veteran's Administration complex. A photo i.d. is needed to get on base and signs will be placed to help guide you to the STARBASE building.

When?

**Tuesday, November 15th
5:30 - 7:00 pm**

Where?

Fort Harrison National Guard Army base.
Building 121

If you have any questions, please contact the STARBASE Fort Harrison Director Michael "Doc" Vannatta. He can be reached by phone [(406) 324-3727] or email [mvannatta@mt.gov]. We would love to have you join us. Refreshments will be served.