



APRIL  
2021

News from the field of the premiere DoD Youth STEM education program.

## Former STARBASE Student Interned with NASA

STARBASE Robins has made its mark on Mars in a very unique way. Former student and now Georgia Tech senior, Breanna Ivey, attended STARBASE Robins in 2010 when she was in the 5th grade at Alexander II Elementary school. Ever since she can remember, Breanna had a curiosity about how things work. She loved taking things apart just to put them back together again. This explains her love of STEM and Marvel comics' very own engineer, Ironman, Tony Stark. She wanted to use those things in a future job, but she had no idea how to mold those interests into a career.

Breanna's love of science and math helped to land her an internship with the NASA Jet Propulsion Laboratory (JPL). She was a member of the National Society of Black Engineers, and she submitted her resume at an event that Georgia Tech hosted in 2019. Breanna was a mobility test engineering intern that was part of the NASA team that worked on the Mars 2020 Perseverance Rover mission, and her job consisted of checking all of the math transformations. She spent June through August 2020 working with the NASA team.

In February 2021, the Mars 2020 Perseverance Rover became the first artificial object to land on the Red Planet after traveling over 203 days. The Mars rover which weighs more than a ton is the largest and heaviest rover NASA has ever built. The rover will use robotic arms to drill into the surface to look for evidence of past life and collect rock and soil samples that will ultimately be brought back to Earth. The Mars rover is expected to explore the surface for at least two years.

When asked what advice she has for girls who want a career in STEM, Breanna said, "The first thing is to not compare yourself to other people. People start in different places so step back and know that you are capable and always trust your journey." The second piece of advice she wanted to share was to find your village. She said, "Find those people that can encourage you and keep you uplifted." Breanna plans to continue her education and has applied for admission into Georgia Tech's master's engineering program. With the love and support she receives from her parents and her brother, there is no doubt Breanna's future is very bright and the sky is definitely not the limit. Congratulations Ms. Ivey! You have made the STARBASE community very proud.



"The role of the teacher is to create the conditions for invention rather than provide ready-made knowledge." --Seymour Papert

# Director of the Air National Guard visits STARBASE Martinsburg



Lt. Gen. Michael Loh and his wife, Diane, visited the Airmen of the 167th Airlift Wing in Martinsburg, WV on March 9, 2021 to see first-hand how the unit had adapted and continued their mission during the COVID-19 pandemic. During this visit, Loh and his wife met with STARBASE Director, Sherra Triggs to see how STARBASE was adapting as well. He was also able to get an up close and personal look at the STARBASE classroom.

Lt. Gen. Loh is the Director, Air National Guard, the Pentagon, Arlington, VA. He is responsible for formulating, developing and coordinating all policies, plans and programs affecting more than 107,000 Air National Guard Airmen and civilians in more than 90 wings and 175 geographically separated units across 213 locations throughout the United States, District of Colombia, Puerto Rico, Guam and the Virgin Islands.

During Loh's visit with STARBASE, he learned about the growth of the Martinsburg program. Beginning in 2003 with one classroom, 675 children attended the 5-day curriculum. By 2019, three classrooms were running simultaneously with over 2,200 5th grade students receiving the 25-hour hands-on, minds-on curriculum.

Discussing the impact of COVID on STARBASE, Triggs explained how STARBASE Martinsburg was able to use its unique geographic location to reach schools that typically were not able to attend by delivering the program to them at their schools. He was also able to see all of the classroom upgrades that were able to be accomplished during the time that students were not in school.

Discussion also took place on the national growth of the STARBASE program and the need for more sites at military locations across the US.



Mrs. Loh was especially excited to learn about the program and see it up close and personal. She was excited to see the focus STARBASE has on under-represented children, especially women in STEM.

Before leaving, Lt. Gen. Loh presented his coin to Ms. Triggs as a thank you for her impact to the STARBASE program and its success in Martinsburg, WV.

It is through first-hand leadership visits such as these, that DoD STARBASE is able to shine and the impact of what the program truly is all about becomes evident.

## A STARBASE Collaboration

With the pandemic in full-swing at the start of the 2020-2021 school year, school districts across the country made tough decisions to ensure education continued as effectively and safely as possible.

While some districts opted for distance learning, others offered in-class learning, and others instituted hybrid models of attendance. Therefore, many education programs had to rework their standard methods for delivering curriculum, and STARBASE was no exception. STARBASE Martinsburg and the Winchester STARBASE Academy met this challenge by taking their Science, Technology, Engineering, and Math (STEM) program “on the road.”

STARBASE Martinsburg, co-located with the 167th Airlift Wing at Shepherd Field, Martinsburg, West Virginia, typically hosts approximately 2,400 fifth graders from Berkeley, Morgan, and Jefferson counties each year. Twenty-five miles south in Virginia, the Winchester STARBASE Academy at the Army National Guard 116th Infantry Regiment, Winchester Readiness Center, serves approximately 1,400 students in Frederick and Clarke counties annually.

“We really had to think outside the box this school year, rework our curriculum, and find ways to take our hands-on, minds-on activities out of our STARBASE classrooms and into the schools,” said Sherra Triggs, STARBASE Martinsburg director.

Since the West Virginia schools were not permitting visitors as part of their COVID-19 restrictions earlier in the school year, Triggs and her team travelled to Greencastle, Pennsylvania, October through December to provide STEM lessons to students there.

Then the Winchester and Martinsburg staffs teamed up during February through mid-April, to deliver an abbreviated version of their curriculum to schools in Frederick County, Virginia.

“This meant that none of the fifth graders from the Frederick County Public Schools that had originally been scheduled this year missed out on our exceptional hands-on STEM program,” said Dr. Susan Corrigan, Winchester STARBASE Academy director.

In mid-April, the partnership continued as the Martinsburg and Winchester staffs were granted permission to deliver the STARBASE lessons in Berkeley County schools.



“This collaboration has been a positive outcome of what has been a trying year for both sites,” said Triggs. “We teach collaboration as part of our curriculum, and this is one more way we can demonstrate collaboration in action to our students.”



## TASK REMINDER

Updates to the COVID Operational Status Tracker spreadsheet are due no later than April 30th (last day of the month).

These updates are provided to OSD/M&RA as a report monthly.

The link to the spreadsheet is available in STARBASE-U. If you are having trouble accessing the tracker, please contact [email@dodstarbase.org](mailto:email@dodstarbase.org) for assistance.

## Extension Activities Update

### What is happening with my submission?

In December of 2020, a call went out to DoD STARBASE sites for extension activity ideas that expand learning from the in-person STARBASE experience back to students' school classrooms. The STARBASE Curriculum Advisory Group (SCAG), received more than 75 jam-packed submissions!! Thank you DoD STARBASE for the incredible response!

The SCAG is in the process of reviewing the submissions determining whether activities and ideas are ready for acceptance or not. Once accepted, submissions will be sorted into appropriate categories for field use. Activities will either be established as a curriculum addition (to be developed and added to the DoD STARBASE curriculum), or as an extension activity to be used outside of the STARBASE academy. If your submission is determined best suited for an extension activity, it will then be split into two groups:

1. Home Activities
2. Teacher Activities/Resources (Teacher resources will be organized as either pre-STARBASE activities, Post-STARBASE activities, Classroom Resources, External Resources or Additional learning activities.)

By providing these activities for classroom teachers and parents of our students, DoD STARBASE provides increased opportunity for growth and continued practice in STEM fields. Parents and teachers alike will be grateful that DoD STARBASE can continue beyond the 25 hours on site.

## LEGO Retiring EV3s! What's next?

### A date to chat!

LEGO has announced that they are retiring the LEGO MINDSTORMS EV3 at the end of June 2021. They are moving to a new system called SPIKE Prime! While everyone is likely excited to see more about the new product line, the SCAG knows that STARBASE sites across the country are going to have questions about how this impacts the STARBASE curriculum.

The first thing to know is that while EV3s are being retired, sites should still be able to get replacement parts and updates for a period of time. So, you have a moment to learn more about the new SPIKE robot. To get us all on the same page, the SCAG has invited Lauren Russell, the STARBASE LEGO representative, to come and answer our questions!

To ensure Lauren has the answer to your question, send any inquiries to [email@dodstarbase.org](mailto:email@dodstarbase.org).

Please join us on **May 11th at 2pm EDT** using the link below.

<https://us02web.zoom.us/j/82697662808?pwd=TjBYWZpNkd5dGwvbThvZ0VpSWcvZz09>

Meeting ID: 826 9766 2808

Passcode: starbase

Dial-in #: +1 301 715 8592 US (Washington DC)

Meeting ID: 826 9766 2808 Passcode: 33045371



# Devon “Falcon” Lawson - Teacher of the Month at STARBASE Fort Harrison

STARBASE Fort Harrison teacher, Devon “Falcon” Lawson, was recently recognized as the “Teacher of the Month” for March 2021 by one of the local radio stations in the Helena, Montana area, KMTX 105.3. Nominations for the program are solicited from community members, and one educator is chosen each month to recognize.



Falcon has been a “Digital Learning Initiative” (DLI) teacher this school year as he is unable to be back in person due to being in a high-risk group for COVID. Consequently, Falcon has had his own class of students all year long and has taught them from home.



It was tremendously challenging to go from teaching STARBASE curriculum to mostly 5th graders to teaching all subjects to both 4th and 5th graders...all while being on the computer full-time. Falcon not only succeeded, but also became a certified Nearpod Educator, distinguishing him as a leader in EdTech.

Falcon challenged his students to meet certain benchmarks and rewarded them by allowing them to pick out his beard style. His students met the challenge and decided Falcon needed a rainbow beard. The included picture is Falcon holding up his part of the deal. STARBASE Fort Harrison has

missed Falcon tremendously this year, and they look forward to him being able to join them again next fall.

## A Call for Participation

Throughout the year, this newsletter will continue to spotlight the achievements, partnerships, and tips of the participants of the DoD STARBASE program. Please share your achievements, success stories, and helpful tips with us at [email@dodstarbase.org](mailto:email@dodstarbase.org).

# STARBASE Salina 2.0 Robotics Club Wins Gold Medal Award

STARBASE Salina hosted their 2.0 robotics club with Sacred Heart Junior High students during the second semester of this year. Cynthia Hulse, 2.0 Coordinator, reports thirteen participants enjoyed learning how to program Lego EV3 robots using sensors and iPads while they prepared for competition. In past years, students participated in a robotics competition held at Fort Hays State University. Due to COVID, Fort Hays announced that this year's competition would be done virtually.

The 2021 Fort Hays Robot Throwdown Challenge engaged students in two phases. During the first phase of the competition, robotics club members from all over Central and Western Kansas worked on designing challenges to submit for consideration. The Fort Hays judges narrowed the submissions down to their top three favorites which lead to the second phase of the competition.

Students set out to conquer any or all of the three challenges which included "The Beetlejuice Maze", "The Self-Timing Drag Race" and "Break the Pyramid". STARBASE Salina's 2.0 team participated in all three challenges with great success. The challenges were videotaped during the club meetings and then submitted to the Fort Hays judges. On April 3, 2021 the Fort Hays judges announced the virtual winners on their website. STARBASE Salina's 2.0 team ended up with the highest combined averaged score from their entries in all three challenges and walked away with the Gold Medal Award.



(Click for video)

## WE JUST GOT WORD - WE ARE GOING VIRTUAL!

The annual DoD STARBASE Workshop will be held virtually the last week in July, the 26-30th.

Specific details about dates and times will be released as soon as they are available. At this time, please try to protect these dates in your schedule. Thank you!

