

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

Look Who's Talking

On September 15th and 16th, 12 directors from across the nation met up at PTC headquarters in Boston, Massachusetts. The two day course included Onshape highlights, cutting edge technology, new curriculum, and hands-on activities like designing an amusement ride using the new Lego Spike. It was a fun and successful training, and we are looking forward to having more as the year progresses! Be on the lookout for emails about training events for STARBASE Staff!

Check out what some of the directors in attendance had to say! [Note: all attendees had to have proof of vaccination in order to attend.]



"I enjoyed getting a better vision for how Onshape is truly a product development platform that uses CAD vs. CAD software. I now have a clear understanding of how our students can benefit from the next-generation features of Onshape, particularly the ability to work collaboratively with other product developers within a single, revision-controlled, cloud-stored document. I hope that PTC will soon offer us an authoring tool for virtualization or augmented-reality creation in our individual STARBASE environments."

Patrick Yonnone, STARBASE Austin

"It is evident that PTC is leading the field by utilizing a CAD platform in the cloud. After attending the PTC Director's meeting, I envision the STARBASE program expanding curriculum that will encourage collaboration among the students as well as other STARBASE locations nationwide. Combining the newly released Spike Prime robots with Onshape will allow students to enter the ever-changing world of computer programming as they will learn to control their robot using Onshape, test a digital twin in a virtual environment, or experience the world of AR."

Karen Whitacre, STARBASE Kansas City

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"We overestimate the risk of trying something new, but we underestimate the risk of standing still." --Josh Linkner

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“Having the opportunity to experiment and dabble in cutting edge technology in person at PTC allows me to bring that knowledge back to energize my staff. Through our instructors, STARBASE students will learn of new advancements in STEM, in particular Onshape, and that those advancements are exciting, life-changing and well within their reach. It was a great opportunity to see what’s happening now and what future innovations hold for everyone on the planet.”

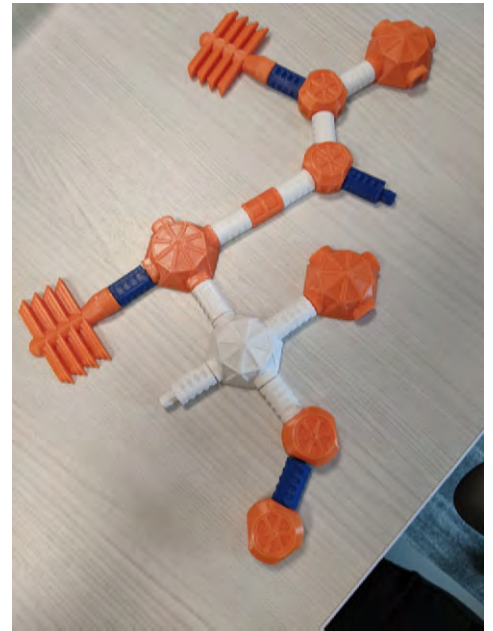
John Puttre, STARBASE Wisconsin

“I truly enjoyed myself at the Boston PTC Class. I really learned a lot and gained some invaluable networking experience. Looking forward to attending or sending my staff to learn the details of PTC STARBASE. PTC is proving separating itself from the rest of the CAD world in regards to technology, capabilities, and adaptation to the desired client including our STARBASE youth. With the newly developed STARBASE lessons and interactive exercises, PTC is assisting STARBASE to become a worldwide household STEM educational program. Thanks for the amazing opportunities and challenges.”

Bruce Griner, STARBASE Florida

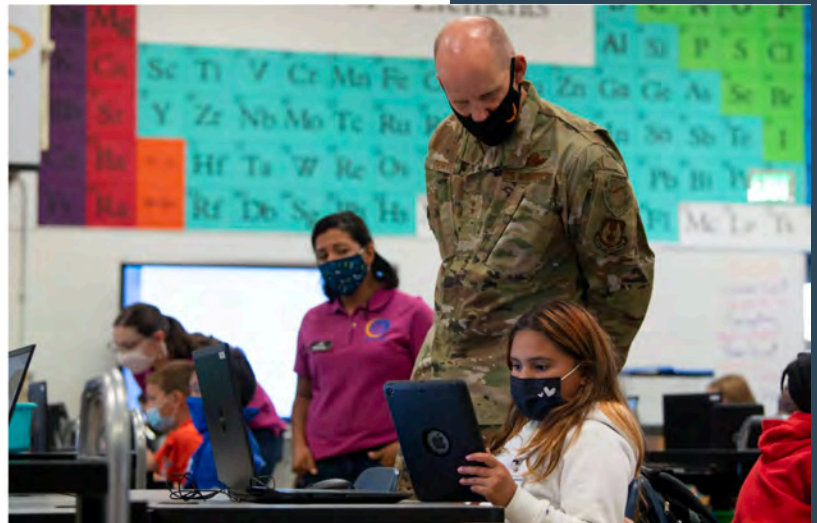
“Visiting PTC headquarter in Boston has allowed me to explore and imagine all the innovative solutions that we can showcase to our future generation. PTC is not just a step ahead of today’s technology needs, but is strategically implementing ways to change the process and means of modernization.”

Amira Flores, STARBASE Edwards



Air Force Test Center Leadership Visits STARBASE Edwards

Major General Evan C. Dertien, took command of the Air force Test Center at Edwards Air Force Base on July 15, 2021. Soon after, DoD STARBASE Edwards welcomed Major General Dertien, along with AFTC Command Chief Master Sergeant Stafford, for an immersion visit. AFTC leadership engaged with students during an OnShape lesson, raced CO₂ dragsters, and viewed cutting-edge technology that enhances and modernizes future innovations.



AFTC leadership was briefed by Director Amira Flores on the history of DoD STARBASE, STARBASE Edwards outreach initiatives, future strategic plans, and the growth that STARBASE Edwards has exhibited in under two years of its inception. AFTC leadership is supportive of the STARBASE mission, vision and commitment to creating and raising a culture of innovative, inclusive, and dynamic STEM workforce.



COVID TRACKER

Updates to the COVID Operational Status Tracker spreadsheet are due no later than October 31st (last day of the month) for those programs that have not resumed normal operations.

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 for assistance.

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.

Welcome Students: STARBASE Guam Launches Successfully

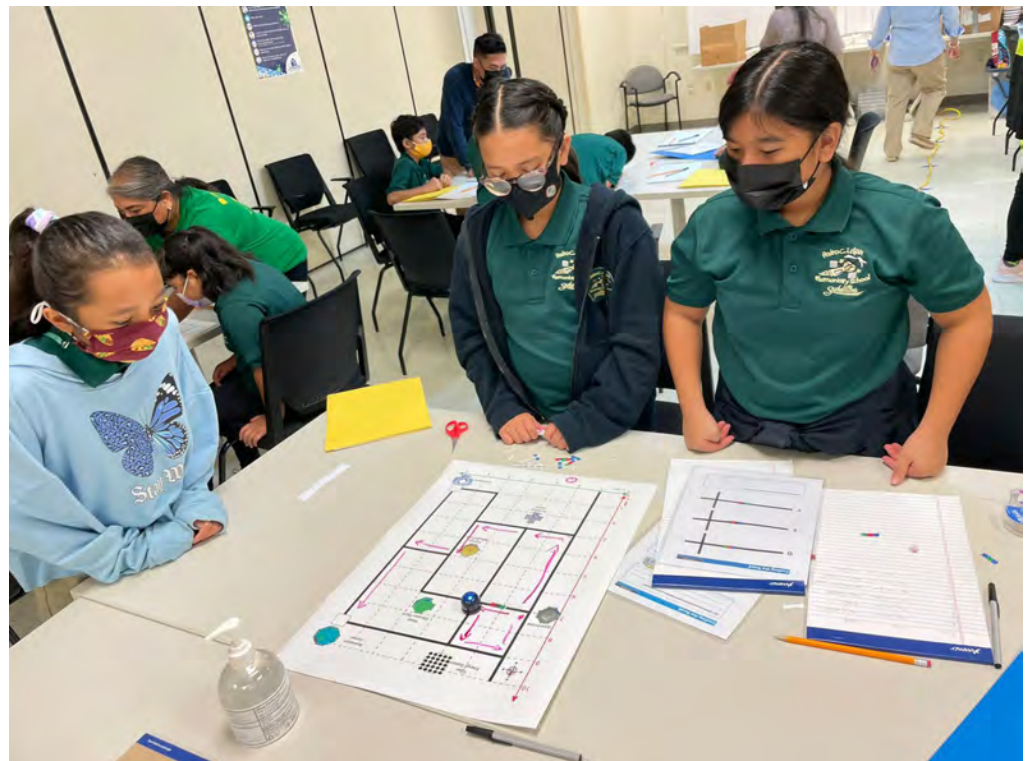
A multipurpose room at the Guam National Guard (GUNG), normally used for everything from serving lunch to classroom training for Soldiers, got a brand-new purpose on the morning of Oct. 12. Now filled with curious contraptions such as zip lines, rock-bed pools, and other hands-on experiments, the room now hosts the newly formed STARBASE Guam.



As the school busses arrived, Lt. Gov. Josh Tenorio, Maj. Gen. (GU) Esther Aguigui, Dr. Leah Beth Nahalowaa, Director of STARBASE Guam, and other staff were on hand to greet the excited fifth-graders from P.C. Lujan Elementary School.

“Whether you like Math, Reading, or Physical Education, it’s all related to Science,” said Tenorio, in his opening remarks to the students. “Scientists are the ones working to make a better life for us all. So I hope you have fun and learn a lot while you’re here.”

To wrap up our week, the morning was spent with the GUNG partners from the 94th Civil Support Team (CST) who conducted a presentation to the PC Lujan fifth graders explaining specific STEM careers within GUNG CST. Students were fascinated by the display of vehicles, equipment and the shared experiences that were provided by the team. In the afternoon, our students used what they had learned throughout the week and participated in a final event including various coding challenges.



Curriculum Update: The Basics of Basic Geometry



In 2020 the Standards, Objectives, and Approved Activities (SOA) guidebook for DoD STARBASE Curriculum received a much needed overhaul and update. Among the many changes, the geometry objective was adjusted to specify the aspects of Geometry that our curriculum focuses on:

“The learner will recognize geometric properties and relationships and apply them to specific problems using a coordinate plane, angles, area, surface area, or volume.”

Initially, the STARBASE Curriculum Advisory Group (SCAG) determined that a basic geometry lesson plan would be helpful to provide a consistent introduction and background information for these concepts, similarly to other areas of the mathematics curriculum like measurement and data analysis. However, as time went on and additional lesson plan ideas were developed, it was clear that this may not be the best option for such a vast field of mathematics.

If a site decided to use “Fly on the Ceiling” as the activity to meet the objective, their focus would clearly be on the coordinate plane aspect, and their students wouldn’t necessarily need the background information on angles or volume. Same with “Does my Robot Measure Up,” while it is vital that students have a firm foundation of volume before completing the activity, it may not be necessary to know how to plot a point on a coordinate plane. So, although it was a good idea for consistency... the SCAG determined that a basic geometry lesson would have to cover too many concepts and could potentially be giving students extraneous information and confusing for our staff.

Since each lesson plan within the geometry category addresses a different component of the objective, existing lesson plan activities have been grouped together with one consistent background section and introduction to that specific property of geometry. This means that there will not be a Basic Geometry lesson. Sites will just need to complete one of the approved lesson plans to satisfy the one geometry objective, as you have been up to this point. Please look for the three news lesson plans to be published shortly that encompass the existing geometry lesson plans: “Coordinate Planes Activities,” Surface Area & Volume Activities,” and “Exploring Angles.”

For any questions regarding curriculum, please contact email@dodstarbase.org, and someone from the SCAG will get back to you shortly!



**CURRICULUM
IDEA?**

Don’t forget that submissions for the Abstract Data Call are due October 29 to email@dod.starbase.org! You can find the submission form in STARBASE-U in the STARBASE News Course.