

INSPIRING STUDENTS IN STEM

## K-12 STEM ENQUIRER

June 2024

Daniel J. Andrews  
 AFRL/EZE STEM Division Chief  
 WPAFB K-12 STEM Lead  
 LEGACY Program  
 WPAFB Educational Outreach Office  
 STARBASE Wright Patt  
 2261 Monahan Way, Bldg. 196  
 Wright Patterson AFB, OH 45433  
[daniel.andrews.1@us.af.mil](mailto:daniel.andrews.1@us.af.mil)

### F-16 Celebrates 50<sup>th</sup> Anniversary

On Tuesday, June 25th the Educational Outreach Office participated in the 50th anniversary of the F-16 Fighting Falcon’s historic first flight! The private event honored the accomplishments and dedication of all those who supported the aircraft throughout the years.

Guests enjoyed a variety of activities including food trucks, meeting team members who work on and pilot the aircraft, STEM lessons (*presented by the EO*), a private flight demonstration and more.

It was a very special experience for everyone attending. [Click here](#) to read the article published by AFLCMC.



In This Issue...	
F-16 Celebrates 50 <sup>th</sup> Anniversary	1
WPAFB Educational Fund Scholarship Recipients	2
STARBASE Camps	3-5
FIRST Update	5-6
LEGACY Rising Apprentices	7
WOW! Teacher Workshops	8
Retirement Celebration	9
New Employee Spotlight	9



Join us next month...

New Employee Spotlight

FIRST Rookie Camps



## WPAFB Educational Fund Scholarship Recipients

On Thursday, June 20<sup>th</sup> scholarships were awarded to the following students: Conor Anderson, Evelyn Boller, Noah Boyce, Marissa DeRespinis, Kaitlyn Fields, Vanessa Gerakines, Kyle Heilman, Luke Huntzinger, Madelyn Maryeski, Zachary May, Camille Meachm, Jack Purtimn, and Avery Slinker.

This was the 39th year scholarships were awarded by the Educational Fund to children and grandchildren of currently employed civilian or active-duty military stationed at WPAFB. Recipients were joined by their family for the ceremony and enjoyed refreshments after.

To learn more about the scholarship fund and how to apply, [click here](#) to visit the webpage.



## STARBASE Camps

STARBASE Wright-Patt had a very busy 2 weeks supporting WPAFB affiliated families with free STEAM camps for students in grades 2-8! From messy mud painting to building better bubbles, campers enjoyed an activity packed week of STEAM exploration! Read on to find out how much fun students had learning...

### Exploring Nature Camp

Campers really got their hands dirty discovering the wonder of seed germination, imitating the busy lives of plant pollinators, and creating feeders to attract birds. Campers explored the wind and weather by flying kites, building wind catchers, and learning how to better protect against the Sun's harsh UV rays. STARBASE Nature Camp was a blast this year!



### Amusement Park Engineering Camp

Rising 4th-6th grade campers learned some of the scientific principles behind creating amusement park rides. They participated in daily team engineering challenges, and worked together to complete roller coasters on classroom walls, waterslides, and other amusement park rides and carnival games. While they know how much fun an amusement park can be, they now know a little about the hard work and thought that goes into creating one!



## STARBASE Camps *cont'd.*

### Robot Coding and Engineering Camp

Our oldest group of students explored the robotics world in their week with us. They learned about hydraulics and robot movement by building Cyborg hands that use gears and hydraulics to move and progressed into how robots use sensors and block codes as commands. They were able to see this in action by creating color-coded paths for Ozobots to follow and learned to block code both the Sphero Bolt and Sphero RVR robots. The highlight of the camp was the creation of floating battle bots to see which team could create and control the best and most creative bot and drive the opponent backwards in the water. The students learned to work with teams and use their interpersonal skills to be successful early robotics engineers.



### Exploring How Our Bodies Work Camp

Our second camp for grades 4-6 learned amazing facts about our bodies. Some of our favorite tasks were creating a brain hat, making ice cream in a bag, creating a model spinal cord and playing with Ozobots! We learned all about digestion, how our teeth work, the importance of washing our hands to get rid of germs, where bacteria is found- and that there is good AND bad bacteria. Our students had a blast and made life-long connections!



## STARBASE Camps *cont'd.*

### Forensics Camp

And finally, our second group of 7th and 8th graders spent the week exploring human anatomy and forensics. They collected evidence on our crime scene that they were able to analyze and discover who the culprit was. While studying the heart, we programmed spheres to follow the path of the circulatory system with the robot acting as a red blood cell. They really enjoyed playing our “mafia” game, each of them getting assigned a role, with a narrator describing a night of mystery. We all had so much fun and learned so much about our bodies!



As you can imagine, the students learned a lot while having fun! We can't wait for our next round of camps coming up in July and August! Stay tuned!

## FIRST Update

The FIRST LEGO League Challenge season has officially wrapped up as our last three teams still competing have completed their events. After their stellar performances and the Ohio Championship in March, these teams were selected to compete at international championship level events. Power Pandas, Lego Legion, and Lego Maskers are all Cincinnati based teams who exemplify the FIRST Core Value of Coopertition, competing and collaborating with your competition. They support each other and make each other stronger, and they were all clearly well-prepared for these Championships as they were each recognized with awards (approx. 30% of teams win an award at each event)!

Power Pandas won the Innovation Project Award at the Western Edge Open in California. Lego Legion won the Peer Award at the WPI WAFFLE Open (at Worcester Polytechnic Institute) in Massachusetts). Lego Maskers won the Innovation Project Award at the Florida Sunshine Invitational. We are so proud of these very accomplished teams and their admirable performances!



FIRST Update *cont'd.*



**LEGACY Rising Apprentices**



**Lindsay Dowty**  
Bellbrook High School  
Rose-Hulman Institute of Technology  
Biomedical Engineering



**Parker Brown**  
Greenview High School  
Miami University  
Electrical Engineering



**Aidan Davis**  
Discovery Canyon Campus HS  
Texas A&M University  
Aerospace Engineering



**Sage Marine**  
Discovery Canyon Campus HS  
Navy enlistment



**Alayna Allport**  
Legacy Christian Academy  
Cedarville University  
Molecular Biology



**Neel Jones**  
Chaminade Julianne Catholic HS  
University of Dayton  
Mechanical Engineering



**Ely Bush**  
Northmont High School  
University of Cincinnati  
Information Technology &  
Computer Science



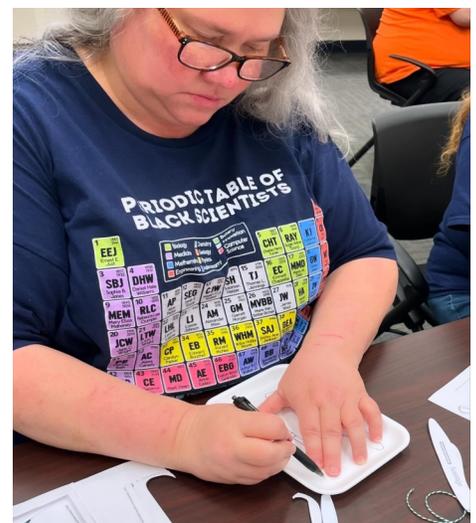
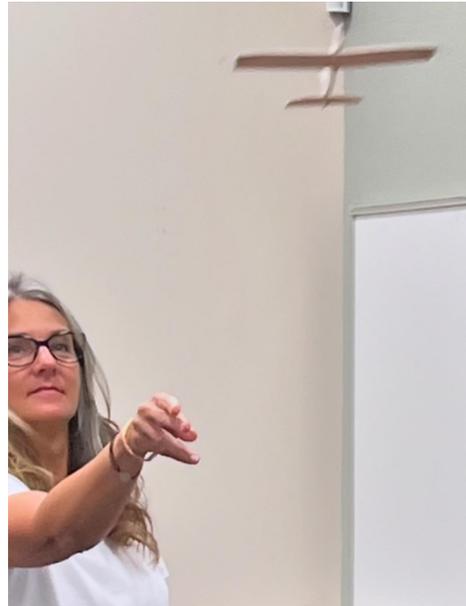
**Katie Cotelleso**  
Homeschooled & Sinclair  
Community College  
Rose-Hulman Institute of Technology  
Mechanical Engineering



**Elizabeth Dierlam**  
Lewis-Palmer HS  
Colorado School of Mines  
Major in Chemistry & Minor in  
Metallurgical Engineering

## WOW! Teacher Workshops

The WOW! program, partnering with SOITA and CET, offered two Workshops this month, focusing on Aviation: Flights and Kites with 5<sup>th</sup>-8<sup>th</sup> grade teachers, and Bubbles, Kites, and Flight with K-4<sup>th</sup> grade teachers. Everyone loves these in-person days and are looking forward to [more free workshops in July](#).



## Retirement Celebration



Please join us in celebrating Patrick Hannon's retirement from the National Museum of the United States Air Force! As an Education Specialist at the NMUSAF, Mr. Hannon led and supported many endeavors and had a significant impact on young people from both the local area and across the country. Partnering with the WPAFB Educational Outreach Office, Mr. Hannon made it possible for FIRST LEGO League and FIRST Tech Challenge events to take place at the Museum over the past few seasons. We appreciate all of Mr. Hannon's support that made these high quality events possible!

*Pictured left: Brenda Ronnbaum (EO + FIRST), Pat Hannon (NMUSAF), and Rich Storrck (FIRST)*



## Employee Spotlight

**Name:** *Amanda Wheeler (contractor)*

**Title:** *Education Specialist*

**Program:** *Educational Outreach Office program support.*

**Years with the EO office:** *1 month - I also previously worked for STARBASE as an Instructor.*



**What are you most excited about in your new role?** *Getting to work with the different programs that are offered by the EO. I will be creating high school STEM lessons as well as performing various tasks that are needed to assist the Program Managers. I also look forward to creating social media content to promote what we can offer local teachers and students, and create excitement around STEM programs.*

**What is your favorite aspect of working with students in STEM?** *I enjoy seeing the thought process that goes into solving the challenges presented to students through STEM lessons. It is very interesting to me to see many different solutions to the same problem. I also love seeing the high levels of engagement and enjoyment that the students have with the lessons and programs we offer.*

**What goal do you have as you settle in to your new role?** *To make interesting, engaging lessons that high school teachers can use in their classrooms, and to make sure that I provide help and support wherever needed in the EO office.*

**If you had one superpower, what would it be and why?** *I would want to be able to teleport. I love to travel, but I don't love how long it takes to get places. Being able to instantly transport there and back would save so much time and effort!*

