

# SUMMER STEM

✧ Taking Over Bluemont Elementary ✧



*Drone photo by Duke Harmon*

COVID-19 may have forced a move from Bluemont Hall to Bluemont Elementary School for the summer of 2021, but the result was still similar: hundreds of middle schoolers engaged in hands-on STEM-related activities. More than 300 middle schoolers—in grades five through eight—poured into Bluemont Elementary for three weeks of engaging, no-tests-required Summer STEM activities. USD 383 Manhattan-Ogden and the Kansas State University’s College of Education collaborated for their 11<sup>th</sup> summer of activities in the Summer STEM Institute June 7-24.

## Class Acts

Students had two dozen options, from exploring Manhattan to flying drones around a gymnasium.

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## Future Teachers Thrive

Forty-six Kansas State University pre-service teachers got real-life experience helping lead the classes.

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## Camp Sights

We offer a look inside the camp classes, throughout Bluemont Elementary and beyond.

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Hollywood Science
Thinking Through Games 1
Robotics 1 & 2
CSI x2
Explore Manhattan
Vet Med
Minecraft on the Moon
Powering the World with Energy
Making it Sew Fun
Science of Food
Music Exploration in a Digital World
Data Detectives and Crop Scene Investigation
Exploring the Beauty of Mathematical Art
STEM in the Outdoors
Outdoor Book Walk
Drones & Coding of Spheros
Thinking Through Games 2
Digital Media/Journalism
Game Theory
History Time Machine: Looking at Some of History's Greatest Moments through STEM
3-D Printing
Get Energized
Fill Your Head with Tech Ed
Lego Robotics

## 24 options filled classrooms with learning, laughter

Once again, the STEM Summer Institute provided two dozen topics for the middle schoolers—and led to an energy-filled environment for three weeks.

Among those were old favorites like Thinking Through Games, CSI, Vet Med, Drones, Robotics, 3-D Printing, Digital Media/Journalism, and Music Exploration in a Digital World.

But there were also new options that proved popular, including Explore Manhattan, Making it Sew Fun, Data Detectives and Crop Scene Investigation, STEM in the Outdoors, Exploring the Beauty of Mathematical Art, Outdoor Book Walks and History Time Machine.

On any given day, middle schoolers soared drones around the school gymnasium and programmed Spheros to travel through various mazes they had created. On another hallway, students took games to another level—taking the essence of games seriously while having a lot of fun along the way.

Making it Sew Fun got students sewing...and they didn't stop. Besides the sewing projects that were part of the lessons, the class unleashed their creativity and they continued...seamlessly. Digital Media/Journalism turned the middle schoolers into digital reporters—interviewing teachers, creating videos and taking photographs.

Outside the walls of Bluemont Elementary, students took advantage of a recent summer storm and built outdoor shelters with tree limbs in the school playground as part of STEM in the Outdoors. They even tested how waterproof their projects were by blasting them with water balloons and water guns (an excellent choice for a hot summer day).

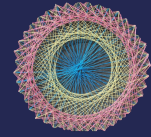
# Preservice teachers learn from the best

*Forty-six future teachers got to work with some of the best local educators, who showed them how to engage students in STEM-related lessons. Besides assisting in teaching lessons, some of them also served as crossing guards after campers were dismissed. A dozen or so KSU students volunteered to ride the bus to and from drop-off sites and got first-hand knowledge in building relationships.*

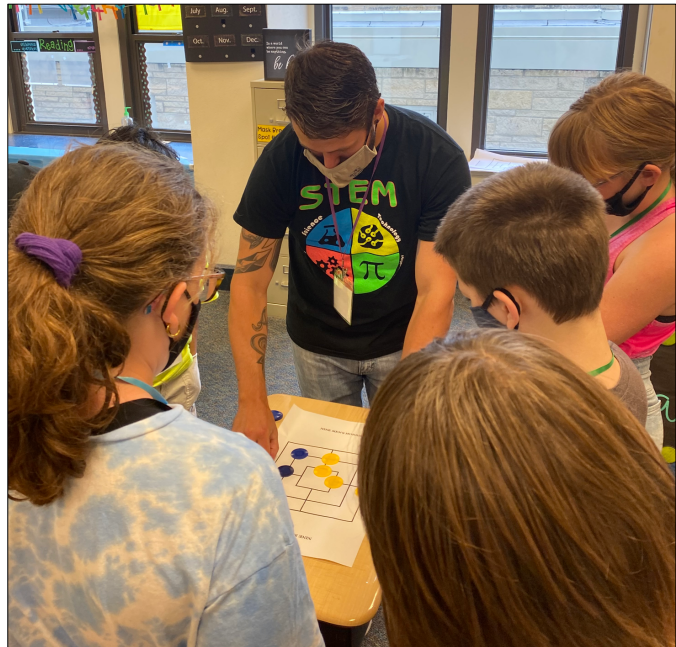




# Camp Sights



Learning came to life in classrooms and beyond







The STEM in the Outdoors class was led by, from left, KSU pre-service teachers Dawson Raymer, Drake Middleton, Krissy Davis, and USD 383 lead teacher Seth Dills.

## From Learning to Leading

Once a KSU student during Summer STEM, Seth Dills shifted to the teacher role

In 2016, Seth Dills was one of about 50 KSU students who spent the summer in Core Teaching Skills learning to be a teacher in Summer STEM.

Five years later, he returned to STEM as a teacher who not only taught middle schoolers but also mentored KSU pre-service teachers who are following in his footsteps.

As a student, he spent four weeks helping lead the Rube Goldberg class for fifth and sixth graders. Then Dills moved on through his blocks and became a licensed teacher.

Dills became a special education teacher at Eisenhower Middle School and decided to return to his STEM roots this summer.

And this spring, he volunteered to teach STEM in the Outdoors, a new class he developed for the fifth and sixth graders attending Summer STEM.

Along the way, he helped three future teachers move successfully toward their new career. One EDCAT leading the way for other EDCATS.



## By the numbers

Here's a breakdown of those participating in the summer program:

**Fifth-graders = 120**

**Sixth-graders = 95**

**Seventh-graders = 63**

**Eighth-graders = 28**

**KSU Pre-service Teachers = 46**



# Keeping Summer STEM Thriving

Businesses, individuals are encouraged to help support the program

Want to join the fun? We'd love to have your support so we can provide Summer STEM for years to come. Here are a few ways you can help:

- *Sponsor a child or class*
- *Volunteer time*
- *Donate resources*
- *Sponsor a bus for STEM transportation*
- *Provide support for KSU preservice teachers*

To get involved, contact Paula Hough at paulah@usd383.org or Lori Goodson at lagoodson@ksu.edu.



## Thank you to those who helped make it happen

After months of planning, the 11<sup>th</sup> annual STEM Summer Institute provided great activities for 310 middle schoolers and a learning opportunity for 46 pre-service teachers. We would like to thank those who played key roles in our camp.

USD 383 personnel who led the planning were Dr. Paula Hough, executive director of Teaching and Learning; Ashley Smith and Sheila Stephens, camp principals; Duke

Harmon and Lucas Loughmiller, who handled technology; and Diane Daniel, administrative assistant. Kaylee Myers, KSU COE instructor, supported day-to-day operations of the camp.

Also, thank you to USD 383 Supt. Marvin Wade, and KSU COE's Dean Debbie Mercer and Assistant Dean Todd Goodson for their support. And a special thanks to Bluemont Elementary Principal Beth Neitzel and her staff for being so welcoming.

~ Lori Goodson

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Check out our website at: [STEM Summer Institute](https://www.usd383.org/STEM-Summer-Institute)



