### **STEM Summer Institute**

### So, what's the big deal about Summer STEM?

Well, we'll tell you all about it!



#### Inside:

| 2              | Page 2 | Want to support our<br>middle schoolers in<br>this program?  |
|----------------|--------|--|
| and the second | Page 3 | Arts and STEM topics<br>offered something<br>for everyone.   |
| 0              | Page 4 | STEM participants<br>showcase their skills<br>at culminating event   |
|                | Page 7 | Check out these<br>scenes around the<br>Summer Institute.  |
|                | Page 8 | It's a great team<br>effort between USD<br>383 and the COE<br>Department of<br>Curriculum and<br>Instruction |

### page **2**



Summer STEAM

Don't let your middle

schoolers miss out on

the fun next summer

when we offer even

more arts and STEM

topics with hands-on

activities!



# From STEM to STEAM About 315 middle schoolers swarmed offered Be a part of STEAM Summer

campus for the 9th annual STEM Summer Institute (SI) June 3-28 at the College of Education on the Kansas State University's College of Education. The collaborative effort, involving COE graduate students and faculty and pre-service elementary and secondary teachers in the Core Teaching Skills course, was highlighted by a Showcase on Friday, June 28.

And while it's growing as a community program, it's also growing in the topics

offered. This summer, STEM became STEAM, with several arts-related choices for students.

"We don't want to limit our topics to STEM, especially when we know how powerful learning opportunities can be through the arts," said Lori Goodson, KSU coordinator for SI. "Writing, art, photography—look for more topics next summer, while still adding to our STEM offerings."



Our program makes learning fun for middle schoolers while getting to explore the Kansas State University campus and meet some of our faculty.

# What's the big deal? How about 25 topics, 315 middle schoolers, 53 KSU students, and lots of hands-on learning

Students in fifth through eighth grade had 25 topics from which they could select, including Thinking Through Games, M.U.S.I.C., Veterinary Medicine, Wild Writing, and Food for Thought.

Sessions were taught by 15 USD 383 teachers, as well as several area educators, and university faculty. Also assisting was BHS Construction, which led a Maker Space session at Marlatt Elementary, and 53 COE preservice teachers.

Classes were held Monday through Thursday mornings, with students rotating to other classes each week. The program is open to USD 383 students, as well as out-of-district students. Fifteen USD 383 teachers helped lead classes this summer. Besides all the engaging activities, participants:

- explored STEAM-related careers
- became familiar with the KSU campus
- visited with our future teachers about college
- Enjoyed a trip to Call Hall for some delicious ice cream.

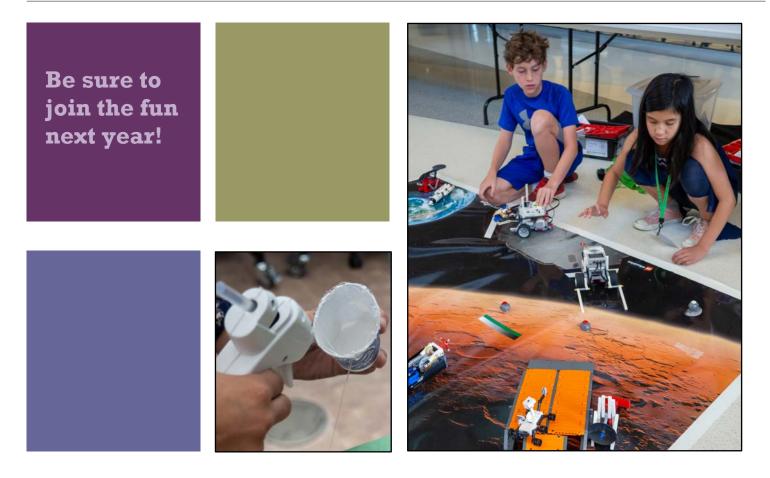


#### Want to support our program? Here's how

The STEM Summer Institute was originally funded through a federal grant; today, however, the program depends upon USD 383, the COE, and the generosity of donors.

If you or your business is interested in supporting the Institute, please visit the website, <u>STEM Institute</u>, or contact Abel Frederic, KSU Foundation Senior Director of Development at abelf@found.ksu.edu.

#### STEM Summer Institute



# **Topics: Something for everyone**

| Wings 1                    | Powering the World with Energy          |
|----------------------------|---|
| Green Champs               | Wings 2                                 |
| Makers Space               | Get Energized                           |
| Robotics 1 & 2 at STARBASE | Wild Writing: Unleash Your Voice        |
| Hollywood Science          | Military Minecraft: Building on History |
| Treasure Hunters           | Agent AI                                |
| Thinking Through Games 1   | Thinking Through Games 2                |
| M.U.S.I.C.                 | Food for Thought                        |
| CSI                        | Robotic Programming and Design          |
| Simulating the Martians    | \$6 Million Hand                        |
| Veterinary Medicine        | Science of Cooking                      |
| Camp Innovation            | Fill Your Head with Tech Ed             |
| STEM w/Nintendo Lab        |   |

## **STEM Showcase**

### Highlighting learning

# Students shared with family, community members, and educators

For the third year in a row, family and community members, as well as educators and policy makers were eager to visit the STEM Showcase to see the students' projects as an official conclusion to this summer's STEM Institute.

Middle schoolers, KSU Core Teaching Skills students, and their teachers showcased a variety of projects from the 24 topics offered this summer as part of the STEM Institute. Visitors wandered from booth to booth for approximately three hours.

The showcase was held Friday, June 28, in the Engineering Hall Atrium and Fielder Hall Atrium on campus.





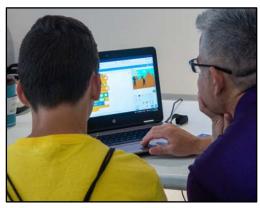


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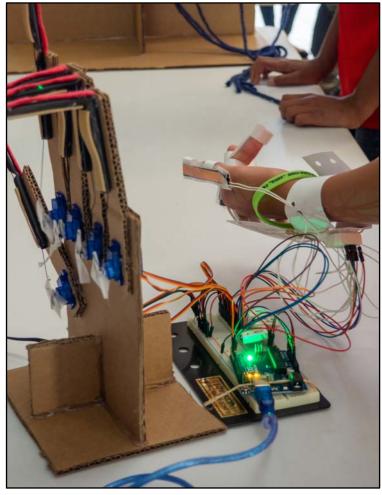
#### STEM Summer Institute







Photos by Mary Hammel





# Scenes around the Summer Institute











https://coe.k-state.edu/stem-institute/

#### Summer 2019

#### STEM Summer Institute













### Scenes around SI

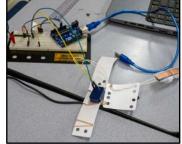
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Summer STEM is the perfect combination of hands-on learning and summer fun!











# Making it happen

### It's a team effort

Summer STEM Institute highlighted USD 383 and KSU's COE collaboration

It takes a great partnership to have such a successful event, and the SI is no exception.

Helping lead the Institute this summer were USD 383 personnel Deb Nauerth and Sheila Stephens, principals for the Institute; Duke Harmon, technology coordinator, and Lacee Sell, director of teaching and learning.

Assistant Professor Lori Goodson and Kaylee Myers, instructor, co-taught the Core Teaching Skills course and oversaw their students' STEM Institute experiences.

This partnership also allowed for others to benefit from the Institute, with several visitors observing the classes.

Khbrat graduate students from Saudi Arabia visited the classes as part of their program, as did dozens of high school students participating in KATA, the Kansas Advanced Teaching Academy, for future teachers, which was sponsored by the COE.

And sometimes it becomes a family affair. We even had the parent of one of the KSU students—who is a classroom teacher—drop by to learn more about how the SI works!

Special thanks to COE Dean Debbie Mercer and Assistant Dean Todd Goodson for caring about students at all levels to help make the Summer Institute happen year after year.