

SUMMER 2022, ISSUE 1

LEAPES STEM CAMPS

KANSAS STATE
UNIVERSITY

College of Education

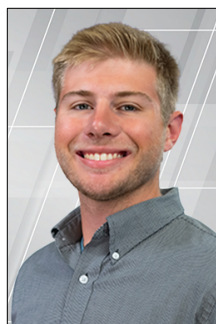


The Virtual STEAM LEAPES Summer Camp is supported by a nearly \$2.7 million Department of Defense grant received by the Kansas State University College of Education's Rural Education Center. K-State's Strategic Funding also provided support. The REC partnered with the University of Kansas' Center for Remote Sensing of Ice Sheets.

FIRST LEAPES PROJECT SERVES NEARLY 390 MIDDLE & HIGH SCHOOL STUDENTS THROUGHOUT KANSAS

Year One of Project LEAPES (Learning, Exploration, and Application for Prospective Engineering Students) was a success, engaging hundreds of students from small and rural/remote schools across the state in new and engaging STEAM experiences. Funded by the Department of Defense National Defense Education Program, we worked collaboratively to bring Kansas stakeholders together with a common goal of getting rural students interested in and excited for STEM careers.

Our Project LEAPES Virtual Summer STEAM Academy was an innovative way to teach Computer Science, Artificial Intelligence, and Aerospace Engineering to students in grades 6-8 across the state. Every day for three weeks in June, about 310 students reported to their local high school



*Kevin Colle,
Program/Project
Coordinator*

and a facilitating teacher assisted them in completing projects explained by highly qualified KSU faculty via Zoom. Participating teachers also received Professional Development on integrating STEM skills into their classes and received over \$4,500 of drones and coding robots to use with their classes in the future free of charge. The results were overwhelmingly positive, with many students reporting a newfound

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SUMMER LEAPES

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interest in the curriculum areas. We will continue to offer and improve the Summer STEAM Academy in the future.

We have also made great progress in making asynchronous STEM Career Exploration Virtual Reality activities available for students and teachers. Partnering with Kansas-based businesses and educational institutions, new lessons focusing on taking “virtual field trips” to businesses across the state will allow rural students to gain a deeper understanding of what STEM careers look like and how to achieve them. The tours will focus on Computer Science, Aerospace, and Artificial Intelligence careers.

Finally, approximately 80 high school students got the chance to travel to the KU campus to take STEM college preparation courses for free. Led by the Center for Remote Sensing of Ice Sheets (CRISIS), students stayed in the dorms, ate at the dining halls, and got a good idea of what to expect out of a STEM degree from a four-year university.

From building and flying drones to learning foundational coding skills, students of all backgrounds and skill levels got a taste of the college experience!

All LEAPES activities will be offered for the 2022-2023 school year. For more information about how you can get involved, please contact Kevin Colle at klcolle@ksu.edu.

GRANT ENCOURAGES STEM DEGREES, CAREERS

The Rural Education Center (REC) in Kansas State University’s College of Education (COE) received a three-year Department of Defense grant for nearly \$2.7 million designed to help mentor and promote Science, Technology, Engineering, and Mathematics (STEM) degrees and careers throughout the state. The grant is through the National Defense Education Program in STEM, Biotechnology, and Enhanced Civics Education.

The REC is building upon an established Summer STEM program with Project LEAPES (Learning, Exploration, and Application for Prospective Engineering Students).

Project LEAPES provides three phases: an awareness camp for students in grades 7-8, a career exploration phase for grades 9-10, and



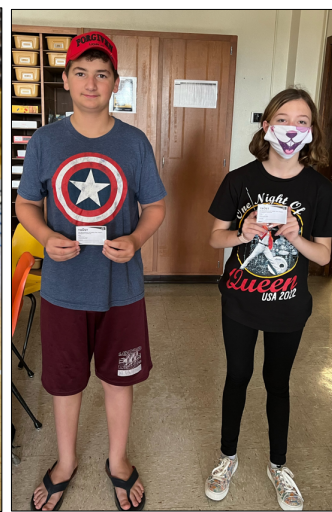
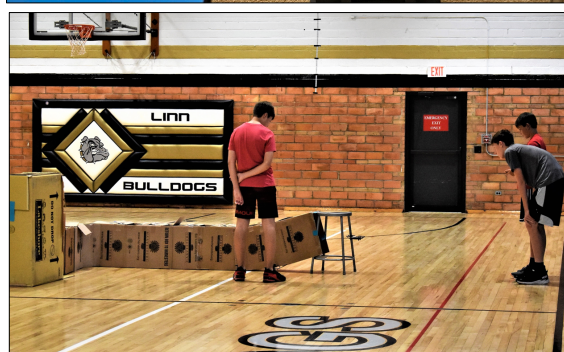
academic and career preparation for grades 11-12. It is expected to provide summer programming for nearly 3,000 students and 360 teachers. It will also provide opportunities for students in person and through virtual reality and professional learning sessions for teachers during the school year.

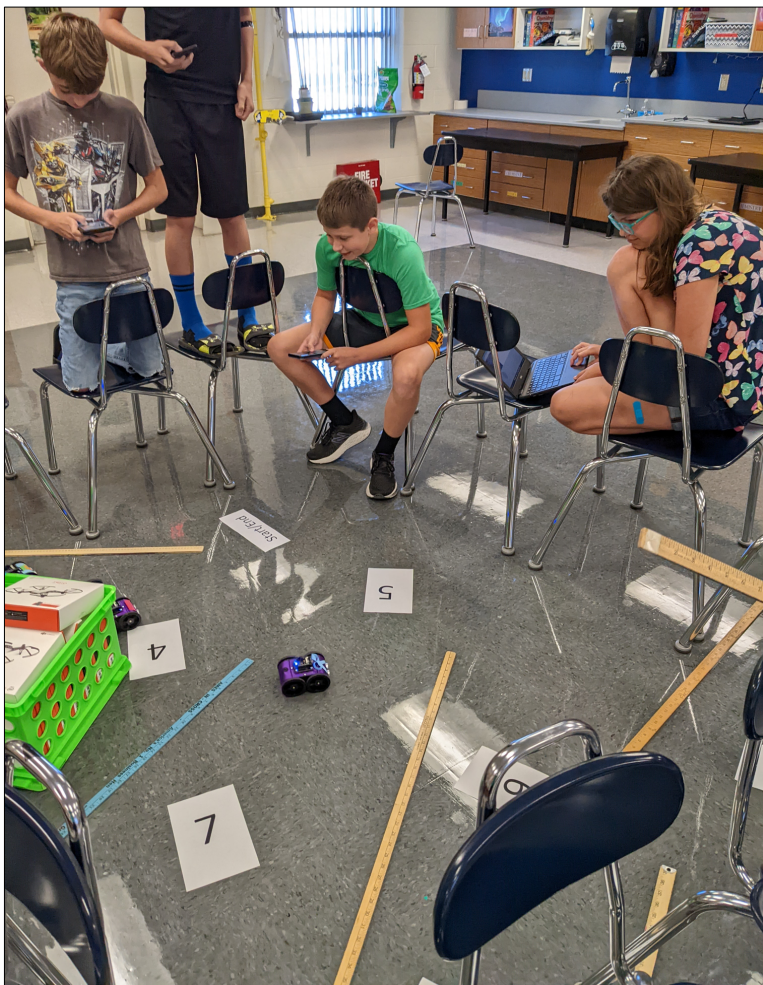
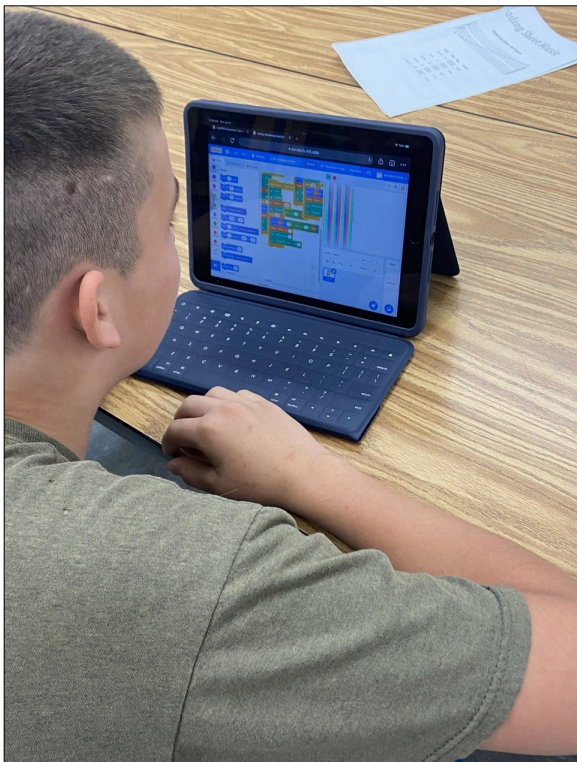
Leading LEAPES are **Program/Project Coordinator Kevin Colle**; **REC Director J. Spencer Clark**, and **REC Assistant Director Lori Goodson**, all in the COE Curriculum and Instruction Department. The REC partnered with University of Kansas’ Center for Remote Sensing of Ice Sheets.

SPECIAL THANKS TO...

- *K-State’s Strategic Investment Funding*
- *Computer Science - Nathan Bean, KSU CS Department*
- *Aerospace Engineering - Mike Kuni, Travis Balthazor and Kurt Carraway, KSU Salina UAS*
- *Artificial Intelligence - Troy Harding, Chad Bailey, Dr. Michael Pritchard and Tim Bower, KSU Salina Integrated Studies Department*

LEAPING INTO STEM





27 SCHOOLS JOINED K-STATE LEAPES IN YEAR 1

In our grant's first year, 33 schools in 27 districts throughout Kansas participated. They were:

USD 215 - Lakin (x2)

USD 113 - Prairie Hills (x4)

Sabetha, Wetmore and Axtell each had classrooms and teachers who received PD

USD 303 - Ness City

USD 379 - Clay County (x3)

Clay County Community Middle School and Wakefield School each had classrooms and teachers who received PD

USD 320 - Wamego (x2)

USD 411 - Goessel

USD 381 - Spearville

USD 241 - Wallace County

USD 257 - Iola

USD 357 - Belle Plaine (x2)

USD 407 - Russell Co

USD 115 - Nemaha Central

USD 284 - Chase Co

USD 107 - Rock Hills

USD 361 - Chaparral

USD 308 - Hutchinson

USD 298 - Lincoln

USD 223 - Linn

USD 310 - Fairfield

USD 258 - Humboldt

USD 420 - Osage City (x2)

USD 507 - Satanta

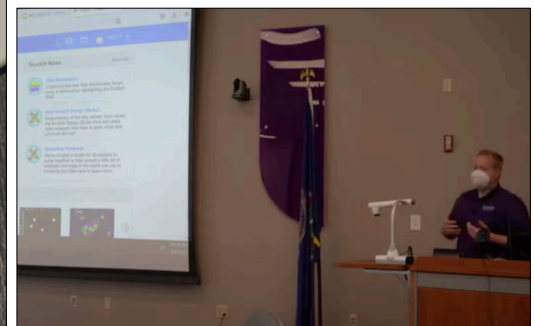
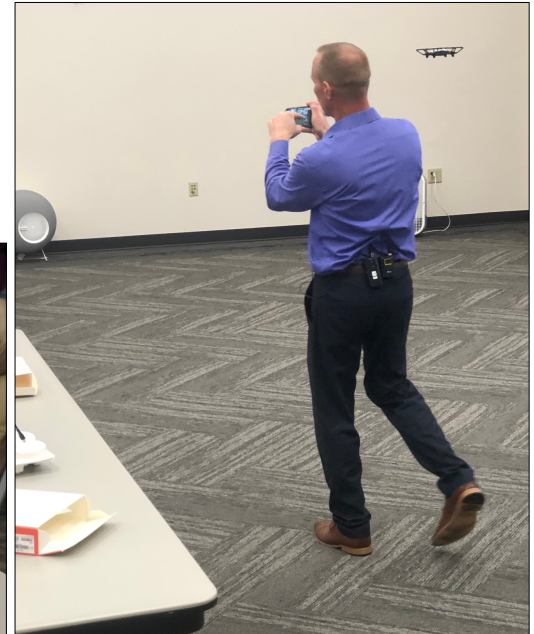
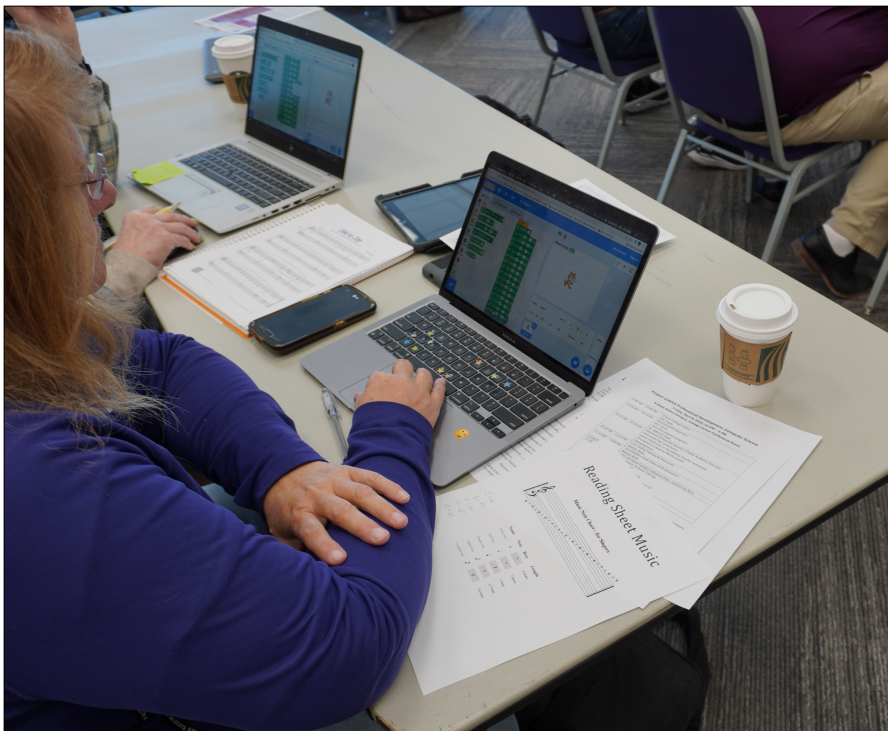
USD 309 - Nickerson

Kickapoo Nation School



WORKSHOPS PROVIDE GADGETS, TRAINING FOR TEACHERS

Through workshops held in Salina and livestreamed, 40 teachers received professional development in computer science, artificial intelligence and aerospace engineering.



PD MATERIALS AVAILABLE

For access to the professional development materials from the three workshop topics, please contact Kevin Colle, klcolle@ksu.edu.

