



STEM Institute

Summer 2018



*A Manhattan-Ogden USD 383/Kansas
State University College of Education
Collaborative Project*



*A special thanks to COE
Dean Debbie Mercer,
Curriculum and Instruction
Department Chair Todd
Goodson, instructor Kaylee
Myers, and student
assistants Zach Cooper and
Emma Detrixhe, as well as
USD 383's Lacee Sell, Larry
Liotta, Brett Nelson, Deb
Nauerth, Duke Harmon,
Deb Mohler and Diane
Daniel.*

~Lori Goodson

The Summer STEM Story

USD 383 Manhattan-Ogden and the Kansas State University College of Education partnered for the eighth year to offer the four-week Summer STEM Institute, providing new classes, some old favorites, and a whole lot of hands-on learning opportunities.

Funded by a \$1.7 million U.S. Department of Defense Education Activity Grant to USD 383, the project was held June 4-29 for 300 USD 383 fifth- through eighth-grade students. Forty-two KSU pre-service secondary and elementary teachers helped lead STEM (Science, Technology, Engineering and Math) classes, as well as music, writing, and gaming.

Assisting were KSU's College of Veterinary Medicine's Department of Anatomy and Physiology; College of Engineering's Department of Architectural Engineering and Construction Science, Department of Computer Science, and Department of Biological and Agricultural Engineering; College of Agriculture's Department of Grain Science and Industry; Manhattan Area Technical College; StarBase; and Fort Riley.



Building a Program

Eight years and counting, Summer STEM has become a popular learning tradition

For almost a decade, the Summer STEM Institute has been providing great opportunities—for middle school students and future teachers. It's a whirlwind of summer fun—laughter and learning rolled into one huge collection of activities.

About 300 middle schoolers and 50 or so KSU Core Teaching Skills students are on campus by 8 a.m., excited for 3 ½ hours of energy-packed classes.

The reason everyone's so exhaustingly happy? Some of USD 383's best teachers and administrators lead hands-on classes that keep the middle schoolers engaged and the pre-service teachers excited about their future careers. Add to that BHS Construction and some of the top KSU COE faculty who lead classes, and the result is a great summer of learning that's a community effort.

STEM Summer Institute Attendance

Year	5 th	6 th	7 th	8 th	9 th	Total	M	F
2018	110	95	69	23	Not offered	296	189	107
2017	121	102	59	44		326	200	126
2016	126	93	62	28	13	322	192	130
2015	120	110	60	46	13	349	194	155
2014	110	95	62	35	13	315	186	129
2013	Not offered	90	69	26	6	191	124	67
2012		93	56	31	11	191	114	77
2011		76	49	33	11	169	87	82



SHOWING OFF

Family, friends, community leaders, educators, and politicians attended the Summer STEM Showcase, held at the Engineering Building on the KSU campus June 29.





A Little Summer **LEARNING**



VISITORS

During our four-week program, we had groups visit various classes. Among those visiting the STEM Institute classes and interacting with the middle schoolers were participants of EdFest, a COE professional development event held for the second summer. Graduate students in the KHBRAT program of CIMA also visited STEM classes. And, to kick off the inaugural summer of the COE's Kansas Advanced Teacher Academy (KATA), high schoolers interested in teaching as a career spent one morning of the group's weeklong activities helping with Dr. Burenheide's Thinking Through Games class.





*Photos
by
Mary
Hammel*

Summer '18 Classes

Wings 1
Green Champs
Makers Space
Game Design
Robotics at STARBASE
Hollywood Science
Treasure Hunters
Thinking Through Games 1
Thinking Through Games 2
CSI
Simulating the Martians
Solar Construction
Vet Med
Movies on the Moon
Get Energized
Write Your Way Through the Day
Need for Speed
Star Wars Engineering/Design
City of Minecraft
Mighty Micro Controllers
M.U.S.I.C.
Food for Thought
Robotic Design
Drones
Fill Your Head with Tech Ed

Saying goodbye and thank you to our colleagues

Three key members of our Summer STEM Institute planning team said goodbye this summer,



Larry Liotta



Deb Mohler



Diane Daniel

after years of working with the program.

Larry Liotta, one of the Summer STEM administrators; Deb Mohler, STEM

parent engagement coordinator; and Diane Daniel, administrative assistant, wrapped up their last STEM. Larry

and Deb are retiring, while Diane is moving to Anthony Middle School.

We can't say enough about what they've meant to our

STEM program and how they've helped it grow.

These three individuals have worked tirelessly throughout the year to help us offer a successful STEM program each summer—and to ensure that hundreds of students could have a quality summer STEM experience.

They will be missed!