

Event Coordinators: Dale Goatley and Terri Stice

Professional Development Title: STEM-Fest 2021

Green River Regional Educational Cooperative, 66 registered in-person attendees / 14 registered virtual attendees, K-12 educators and leadership

STEM-Fest 2021 was an exposition-style professional learning event offered on April 14th, 2021 at GRREC for K-12 educators and leaders. Teacher leaders led various sessions offered at multiple times throughout the day for attendees to join. The purpose of the event was to allow teacher leaders associated with the STEM-CS grant and the Endeavor STEM Leadership Certification Program an opportunity to showcase a curriculum shift they have made to enhance STEM learning, share Endeavor resources and NASA assets with others, and most importantly, advocate the significance of their curriculum shift with respect to student learning. From Cheung's et al. (2018) teacher leader profile survey, "science teacher leaders were twice as likely to say that they needed to develop their advocacy skills" (p.42). STEM-Fest 2021 served as a safe and diverse environment to do just that. Collectively, event attendees represented 13 different Kentucky school districts, Western Kentucky University, Discovery Education, the University of the Cumberlands, Southcentral Kentucky Community and Technical College, the U.S. Satellite Laboratory, Inc., Sumitomo Electric Wiring System, Inc., and internal staff of the Green River Regional Educational Cooperative. The STEM-Fest event will become an annual sponsored event of the STEM-CS grant and the event staff are hopeful to welcome additional school districts, industries, and other potential partners in the future. It is imperative for the sustainability of the grant's work to build leadership capacity of grant participants. Once the STEM-CS grant officially ends, its influence must continue. Empowering participating grant teachers to grow in their expertise of STEM, partnered with opportunities to grow their leadership capacity, will support the perpetuation of the grant's purpose.

Quantitative data collected from the STEM-Fest survey:

73% of attendees would be interested in participating in a STEM and Computer Science network

33% of attendees indicated that their district provides a STEM/STEAM lab for students

48% of attendees indicated that computer science is offered as a course at their respective school

46% of attendees indicated their school offers an STLP program

25% of attendees indicated their school has a makerspace area

23% of attendees indicated they were unfamiliar with the concept of a makerspace area

96% of attendees indicated they would attend more STEM professional development opportunities at GRREC

Qualitative data collected from the STEM-Fest survey:

“Next year, I will be teaching coding in an elective classroom. We don't currently have a STEM classroom but I would love to offer as many STEM resources in my instruction as I can!”

“I would love to learn about implementing STEM lessons in my 6th grade math class in a time effective manner. I am interested in learning how to plan STEM lessons that effectively teach my standard.”

“I would like to see more examples of STEM activities/projects that can be implemented into various types of curriculum.”

There was an overwhelming need indicated for additional STEM professional development offerings at GRREC. The STEM-CS grant can be leveraged to provide STEM professional learning events to not only participating teachers but open attendance to other interested educators in the region. This summer on June 7th and 8th, GRREC will be hosting a professional learning event titled “Phenomena-Based Learning” and on June 28th - 30th GRREC is inviting Discovery Education to lead a STEM Summer Institute with regional educators. Terri and I will continue to secure additional STEM professional learning opportunities for the GRREC region to address the indicated needs based on the STEM-Fest survey. Makerspaces and computer science education are two potential areas to explore further.

Session Leaders:

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Allison Bemiss, Preschool Consultant - allison.bemiss@grrec.org

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Materials Developed for STEM-Fest 2021

[STEM-Fest 2021 Agenda](#) - virtual attendees used the agenda to access Zoom links for each session, in-person attendees used the agenda to locate the session inside the GRREC facility, all attendees used the agenda to access session materials/resources

[Session Descriptions](#) - all attendees could access this through the agenda so they were aware of what to expect from each session

[STEM-Fest 2021 Webpage](#) - this page was created to share the event with those who were unable to attend on April 14th

STEM-Fest T-Shirts for session leaders and event staff

