



Kenton County School District | It's about ALL kids.

**THE KENTON COUNTY BOARD OF
EDUCATION**

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Dr. Henry Webb, Superintendent of Schools

KCSD ISSUE PAPER

DATE:

1/22/18

AGENDA ITEM (ACTION ITEM):

Consider/Approve application for a Greater Cincinnati STEM Collaborative grant to fund a summer Computer Science Camp at Summit View Academy

APPLICABLE BOARD POLICY:

Click or tap here to enter text.

HISTORY/BACKGROUND:

Computer Science Camp: Students will think algorithmically, computationally, creatively, and critically while collaborating and communicating with others. They will learn about Computer Science and have the opportunity to explore their interest in the ever-changing and rapidly growing Information Technology (IT) field

FISCAL/BUDGETARY IMPACT:


The camp is for 5 days; If we receive the grant, students are not required to pay and all materials are included. Teacher stipend is also included in the proposed funding for the grant.

RECOMMENDATION:


It is recommended that the Kenton County Board of Education approve the Greater Cincinnati STEM Collaborative grant application to fund a summer Computer Science Camp at Summit View Academy.

CONTACT PERSON:

Lesley Smith


Principal


District Administrator


Superintendent

Use this form to submit your request to the Superintendent for items to be added to the Board Meeting Agenda.
Principal –complete, print, sign and send to your Director. Director –if approved, sign and put in the Superintendent's mailbox.

Kenton County Board of Education

Board Members: Carl Wicklund, Chairperson Karen L. Collins, Vice Chairperson Joshua Crabtree, Esq. Carla Egan Jessica Jehn
"The Kenton County Board of Education provides Equal Education & Employment Opportunities."



Greater Cincinnati STEM Collaborative (GCSC)

Applications for Summer of STEM 2018 Camps

Release Date: December 18, 2017

Greater Cincinnati STEM Collaborative (GCSC) helps prepare students for their futures and to join Greater Cincinnati's workforce through connected, robust STEM learning pathways. STEM learning is propelled by business, education, community collaboration and our culture of incubation, acceleration, and inclusion.

Our vision is that Greater Cincinnati continues its growth as a technologically rich, vibrant community with the most talented STEM workforce in the country that is representative of the region's population. GCSC prioritizes organizations serving higher percentages of students who are diverse, disadvantaged, and/or otherwise underserved for direct funding and support.

All Summer of STEM 2018 camp applications must be submitted by Monday, February 5, 2018.

Summer of STEM 2018

Summer of STEM combats summer learning loss ("summer slide") by creating opportunities for students to explore STEM learning and careers specifically during the summer months. GCSC funding mainly supports students who otherwise would not have access to high-quality STEM programs. Visit the [Summer of STEM webpage](#) to review previous summers' results, partners / supporters, and more.

Due to the generosity of GCSC's partners and incorporating lessons learned from the previous two summers, GCSC is pleased to offer "camps-in-a-box". Camps are designed by expert educators, both locally and nationally, and based on previous successful summer camps:

1. **Introduction to STEM: Design and Making Camp** - Students will choose a technology-related passion project designed to grow their critical thinking, creativity, and collaboration skills while increasing their interest in STEM. They will present what they learn to an authentic audience. [Link to overview](#)
2. **STEAM Academy: Rockin' Robots Camp** - Students will tap their creativity and be empowered to learn new skills as they create their own basic robots and learn how they work. They will gain the programming fundamentals to create and control both virtual and real-world characters. [Link to overview](#)
3. **Computer Science Camp** - Students will think algorithmically, computationally, creatively, and critically while collaborating and communicating with others. They will learn about Computer Science and have the opportunity to explore their interest in the ever-changing and rapidly growing Information Technology (IT) field. [Link to overview](#)
4. **STEM Bicycle Club Camp** - Students will experience GCSC's STEM Bicycle Club in the summer camp environment. Students will break down and re-assemble bicycles they get to keep. The club builds student confidence as well as problem solving and persistence skills. [Link to overview](#)
5. **C-STEM Girl Camp** - Girls will be motivated to learn computing and STEM concepts through a fun and exciting robotics-based curriculum. Girls will grow their leadership and communication skills, meet inspiring women leaders, and gain exposure to the variety of future opportunities. [Link to overview](#)
6. **Other (write-in)** - GCSC will award several mini-grants, up to \$3,500 each, to support programs designed to engage students in two additional ways:
 - a. New, innovative STEM programs that will be prototyped in summer 2018 - and / or -
 - b. Programs designed to occur primarily outdoors, in nature's perfect science lab.

Applications Timeline

Milestone	Date
Application window opens	December 18, 2017
Applications due	February 5, 2018
Recipients announced	February 26, 2018
Camps Professional Development	March 9, 2018 (9:00am-3:00pm) – Jones Middle School May 10, 2018 (4:00pm-8:00pm) – University of Cincinnati <i>Camp leader(s) pick(s) one to attend</i>
Summer of STEM Community Debrief	August 9, 2018 (11:00am – 1:00pm)
Results (impact) report due to GCSC	October 1, 2018

Submitting Your Application

Use this link to submit your camp application

Once you're on the application site:

1. Make an account or sign in.
2. Begin filling out your information.
3. If you want to save a draft, scroll to the bottom of the application and click the "Save Draft" button. Access draft by logging into submittable.com, clicking the drop-down menu on the top right by your name, clicking "My Submissions," selecting "Saved Drafts" from the top bar, then clicking "Continue."
4. When your application is complete, click the orange Submit button. You will receive an email confirming your application has been received.

Partners may submit multiple applications for Summer of STEM 2018 Camps.

Questions? Contact GCSC

Contact GCSC at gcsctemed@gmail.com if more information is needed to complete an application. Inquiries should include a description of the information needed and full contact information (name, organization, email address, and phone number).

Selection Principles

1. **Inclusion and Access:** GCSC will award camps disproportionately to educators (and other partners) serving students who are diverse, economically disadvantaged, and/or otherwise underserved. GCSC will award camps broadly across the region, while meeting other principles.
2. **Readiness & Commitment:** Camp leaders and their sponsors must be committed to collaborate with GCSC to:
 - Maximize and measure positive student impacts
 - Share the story of camp and Summer of STEM success
3. **STEM engagement best practices:** Camp leaders will successfully employ STEM Engagement Best Practices.
4. **Sustainability:** GCSC prioritizes funding applicants:
 - Willing to co-invest and cover at least a small portion of their camp costs. GCSC will help with partners' fund-raising as wanted (coaching / consultation, provide information needed for grant writing, and /or letters of endorsement).
 - Who will re-apply, and maximize the subsequent use of, resources and knowledge gained in Summer of STEM 2018.
5. **Innovation:** Up to 12% of GCSC's Summer of STEM 2018 funds will be allocated to support new, innovative approaches to using STEM Engagement Best Practices for students during the summer months.
6. **Sponsor Priority:** Funding will be awarded in line with sponsors' priorities: geographic location / diversity, student age and / or diversity, etc.

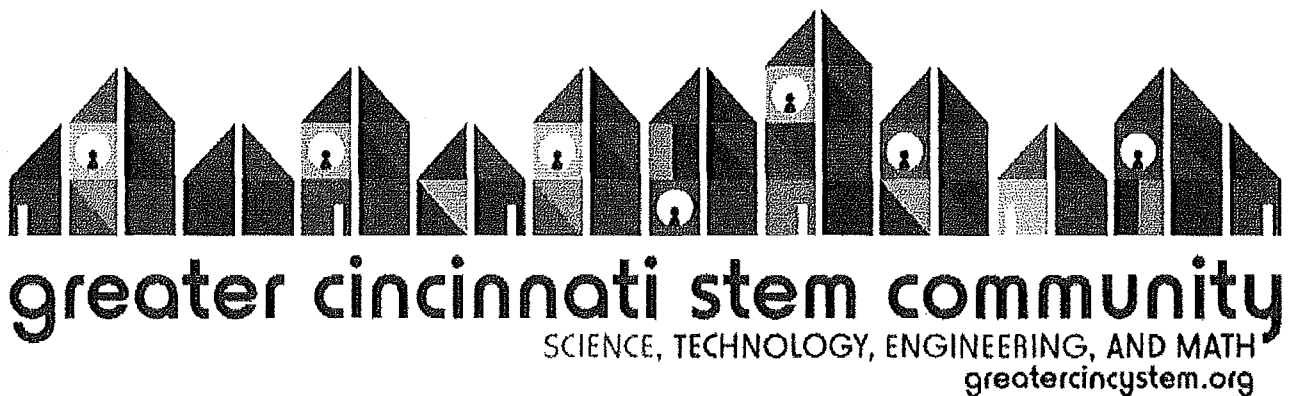
Camp Resources Provided By GCSC

1. Curriculum that includes coaches guide with lesson plans and student workbooks (see note a. below for C-STEM Girl Camp).
2. Tools and thought starters to support volunteer engagement, student recruitment, family engagement, and more.

3. Professional Development (PD) / training and consultation for camp leaders.
4. Camp materials, purchase and delivery coordinated by GCSC.
5. Student STEM Passports for all participating students.
6. As needed a small budget for camp food, staff stipend, and transportation to STEM / Design Fest event (if held, see note below).

NOTES

- a. C-STEM Girl Camp curriculum includes agenda, handouts, and electronic presentation files provided by University of California Davis.
- b. GCSC is not able to fund desktops, laptops, Chromebooks, mobile devices, or robotics equipment referenced in camp overviews. Applicants should ensure access to this equipment as part of submitting camp applications.
- c. Applicants applying for mini-grant funds via the "Other (write-in)" category will have access to resources described in #2 and #5 above. Applicants will provide all other resources, including with the funds provided by GCSC.
- d. GCSC is exploring options for an outdoor STEM / Design Fest to culminate Summer of STEM 2018. Partners interested to help plan and / or co-host are requested to contact GCSC at gcscstemed@gmail.com.



PART I: APPLICANT INFORMATION

On behalf of which school or organization are you submitting this application?

*Summit View Academy

Name and role of the person submitting this application: * Brian Murray 6-8
STEAM Lab Instructor

Enter your email address here: * brian.murray@kenton.kyschools.us

Enter your phone number here: *859-359-9600

Enter your organization's ship-to address here: * 5006 Madison Pike,
Independence, KY 41051

What is your organization's service area (city/township/village/community) *
Kenton County in Independence, KY

Tell us about your organization and why you are interested in a Summer of STEM 2018 Camp. * Summit View is a K-8 STEAM Academy, which focuses on connecting the areas of science, technology, engineering, art, and math to real world learning. Our mission is to surround middle school students with project-based learning that reveals individual strengths while teaching real world skills. We strive to prepare our students for the 21st century workforce.

The Summer of STEAM embodies Summit View's overall goals. However, interest in the Summer of STEAM lies in the word, SUMMER. Students need an opportunity to exercise their minds as well as increase their physical activity during the summer months. At the same time, it is important to provide academic activity in a non-traditional setting (i.e. camp), giving students an alternative-learning atmosphere, thereby keeping student interest piqued and learning fresh.

Secondly, with the emphasis on standards and assessment, students often do not get the opportunity to take the time to drill down and extensively explore a given area of interest. The various offerings of the Summer of STEAM provides this, and is wonderful opportunity for today's students.

Limit: 200 words

For which camp are you applying? * *Summer of STEAM - Computer Science*

Why are you applying for this, vs. the other available, camps? *

The Summer of STEAM program understands the skills needed for our students to compete and be successful in the 21st century workforce. The vast majority of the current century's workforce will need skills in automation and technology, the foundation of which will be software programming and coding. Like any foreign language, the earlier students are introduced to the language, the better.

Secondly, the bridge to 21st century learning will be the leap in imagination. Creative thinking processes will be needed to retain our prominence as leaders in innovation. This is most profoundly seen in app development. In the past decade the rise of mobile computing (smart phones, tablets, and laptop computers) has only been exceeded by the exponential increase in applications for this technology.

And while so many of our students are experts when it comes to using technology, most have little understanding of how it works. I wish to "demystify" technology for our students. By learning to think about designing and applying technology, not only will they become better digital citizens, but will also understand the real power of technology in making positive changes in the world.

Limit: 200 words

Where and when will your camp run? *The camp will run at Summit View Academy in the 6-8 STEAM Lab. This is a perfect location, as it offers more than adequate room, with an expansive area for group work and creative thinking, which then transitions adjacently to a computer section. This camp will run during the week of June 11th-15th, soon after school is out, and during a time that is least conflictive with normal summer related activities,*

such as vacation time. It also prevents conflict with other camps that will be running at SVA during the summer.

Limit: 100 words

PART II: STUDENT INFORMATION

How will students be selected to participate in your camp? How will your organization ensure their readiness and commitment? **We will select a group of all-female students who are strong in math and/or science, communication, and creativity. Therefore, students will be selected through Math MAP scores and recommendations from their Science, Art, and Language Arts teachers.*

From this pool we will give first priority to those who are participate in the Free and Reduced Lunch program. We will then prioritize those students who may not have had access to the STEAM Lab during the school day due to scheduling conflicts.

This selection process should provide a group of students who will be successful in the creative process of app development and programming.

Limit: 100 words

What percentage of your camp's students will be diverse, economically disadvantaged, and/or otherwise under-served? Describe these students. **First, we are running an ALL-girl camp. We MUST encourage girls to consider STEAM careers, due to their underrepresentation in the workforce.*

Within that group, our first priority is to those students who are part of the Free and Reduced Lunch program. This free opportunity to attend a camp may be the only one they have, due to economic hardship.

We will then give priority to those students who have not had the opportunity to participate in the SVA Steam Lab program due to scheduling

conflicts with other Enrichment classes that are year-long, such as Band, Chorus, and Math 180.

Limit: 100 words

What will be the ages of students that attend your camp? * 11-14 years old

Limit: 10 words

Approximately how many students will attend your camp? 24 students

Limit: 10 words

Is your organization interested to run an all-girls camp? Tell us why / why not and the benefits you anticipate for your girl students. *We are making this an all-girl camp. We understand and value the importance of female roles in STEM careers and in our STEAM programs.

Females make-up only about 15% of the engineers and 25% of the computer scientists in the workforce. And the number of women in the computer sciences has been decreasing since the 1990's.

In a traditional classroom environment, boys can often be overly assertive. We wish to provide an open and relaxed environment for these girls, to become comfortable, to stand up for their ideals, and to develop skills and enthusiasm for computer science.

Resources that may help inform your response: <http://greatercincystem.org/girls-in-stem/>
(Videos and more)

Limit: 100 words

What is the home county of the students your camp will serve? Kenton County

PART III: PARTNER INFORMATION

Who will lead your camp and what is her/his role? * Brian Murray

Enter his/her email address here: [*brian.murray@kenton.kyschools.us](mailto:brian.murray@kenton.kyschools.us)

Who else, if anyone, will play an important role in your camp and what is her/his role? *Carrie Holloway, Assistant Principal of Summit View Academy,*

former NKU CINSAM STEM Outreach Specialist, will help provide guidance in terms of curriculum and support to enhance teacher and students knowledge of STEAM. She will serve as our administrator contact and will be involved not only with the planning but will be at school during the week of our camp. Enter his/her email address here:

carrie.holloway2@kenton.kyschools.us

Will your camp include volunteer professional coaches to help engage students in STEM? If yes, tell us about this. *Mrs. Holloway, former NKU CINSAM STEM Outreach Specialist, is in the process of contacting a former colleague, the Chair of NKU's Computer Science Department, to engage one of their female instructors to lead a discussion in future careers in computer science and the role of women in filling them.

Limit: 100 words

Parents can play the starring role to support their child in STEM. Describe your plans for family engagement.* Families will be invited to come to our Computer Science Presentations on the last day of camp! Students will present their ideas and apps for their peers and parents. We will also be sharing experiences and achievements on the school's Twitter and Facebook page throughout the week so families can see what their child has accomplished. We are in the process of reviewing the parent resources from the STEM Companion book to share with parents and how best to communicate these.

Resources that may help inform your response:
<http://greatercincsystem.org/families/>(STEM Companion Book and more)

Limit: 200 words

C-STEM Girl Camp applicants (only), please describe your plans to include college- and high-school-aged students as camp coaches.

Limit: 100 words

PART IV: SUSTAINABILITY

Which of the following costs will you (and /or your partners) be able to cover?
Check all that apply. *

Camp Food

Transportation to STEM / Design Fest event (if held)

GCSC prioritizes funding camps that will co-invest to cover at least a small portion of camp costs. GCSC will also help with partners' fund-raising as wanted (coaching / consultation, provide information needed for grant writing, and /or letters of endorsement).

How will your organization leverage resources and knowledge gained from GCSC Summer of STEM 2018 support throughout the year? *

Resources are valuable and limiting their value to a single use would be wasteful. Moving beyond the camp, the most valuable resource will be to include app-development in our STEAM Lab. This will allow us to develop student resources which we then could include in our Genius Hour classes and possibly develop school based apps for use in our core classes. If there is enough interest, we could also look at creating an after-school club.

Beyond that I would like to develop the connection with our NKU contact and consider an on-going partnership to develop student curriculum and skill focus specifically in computer science.

Limit: 200 words

PART V: READINESS & COMMITMENT

Is your organization prepared to provide any laptop/desktop/Chromebook, mobile device, and/or robotics equipment needed in your camp? *



No

Unsure

Is your organization committed to collect post-camp data from camp students and leaders regarding student impact and interest in STEM? *



No

Unsure

Is your organization committed to obtain media releases for camp students and share camp news and pictures using social media? *



No

Unsure

Is your organization willing to host visitors, including the media, during your camp? *



No

Unsure

Is your organization able to attend one of the Camps Professional Development sessions scheduled for March 9 and May 10?



Yes. Most likely to attend the May 10 (4pm-8pm) session

No

Unsure

If you responded "unsure" to any of these Readiness & Commitment questions, why?

Limit: 100 words

Part VI: Mini-Grant Program Information

Complete only if applying for "Other (Write-In)"

Upload a 1-2 page description of the program for which you are seeking GCSC mini-grant funds.

Acceptable file types: pdf, doc, docx.

Choose Files

To be considered for GCSC mini-grant funding program should be:

- 1) A new STEM program that will be prototyped in summer 2018 - and/or -
- 2) Designed to occur primarily outdoors, in nature's perfect science lab.

Include description of how your program will employ STEM Engagement Best Practices: <http://greatercincsystem.org/wp-content/uploads/2017/11/STEM-Engagement-Best-Practices.pdf>

No files have been attached yet.

What amount of funds are you requesting from GCSC?

Maximum amount that will be awarded is \$3,500

How will GCSC mini-grant funds be used?

Total cannot exceed \$3,500

Limit: 500 words

List any other organizations funding your program. Include funding amounts and status (such as requested, committed, funds received, etc.).

Limit: 100 words

Part VII: Wrap Up

Thank you for your interest in the Summer of STEM. Use this box if you have additional notes regarding your application.

Materials

Name	Cost	Quantity	Total
Kindle Fire 8 Tablet	79.99	6	479.94
Teacher Stipend	600	1	600
Camp T-Shirts	7	24	168
Celebration/Snacks	200 (in kind match by SVA)	1	200
Misc. Office Supplies	100	1	100
Total			\$1,547.94 -200 = \$1347.94