



## **Background**

The Greater Cincinnati STEM Collaborative (GCSC) was established in 2011 with the mission to create a robust STEM pipeline of talent to help fill vacant STEM jobs in the Greater Cincinnati region. GCSC acts as the backbone collaborative STEM K-12 organization, bringing together business, education, and community partners to highlight STEM education and opportunities in our area so the STEM workforce is representative of the region's population.

GCSC disproportionately serves students who are underrepresented in STEM (students of color, girls, low income students), as the future of STEM needs to include them. Not enough of the region's diverse, low income students are preparing for STEM futures, something they can attain.

GCSC works to fulfil its mission by providing hands-on, engaging STEM opportunities to students in the Greater Cincinnati area, helps students, families and educators to realize the STEM resources in their communities, and connects business partners to those interested in STEM to expose students to new careers.

## **2019-2020 Opportunities**

GCSC provides educators with a variety of resources and opportunities to help bring STEM opportunities to students. Let us know if you are interested in learning more about, and being added to "interested lists" for the following opportunities, by emailing us at [gscstemed@gmail.com](mailto:gscstemed@gmail.com)!

### Family STEM Cards

Resource created to encourage families to engage around STEM in their homes. This deck of cards contains various STEM activities for a variety of age groups and can also be used by teachers in school. None of the activities require special equipment; most can be done using materials often found at home.

### IGNITE MyFuture Computational Thinking Day of Discovery

Learn, connect and share with educators and thought-leaders in your community during a free day of immersive professional learning to dive into the world of computational thinking presented by Discovery Education and Tata Consultancy Services (TCS). Through an immersive, hands-on agenda, you will learn ways to seamlessly connect computational thinking strategies to standards across a variety of subject areas. Next scheduled session will be hosted at the University of Cincinnati on February 12, 2020.

### West Point STEM Mobile Workshop

Program for 7<sup>th</sup> and 8<sup>th</sup> grade students to participate in hands-on STEM circuitry and coding. GCSC expects the workshop to be repeated in March 2020. More information about the workshop is online [here](#).

### greenlight for girls day Cincinnati

A day of STEM inspiration hosted at the University of Cincinnati for middle school-aged girls that includes hands-on workshops and "look like me" volunteers and role models. Increases girls' interest in STEM careers and their confidence to pursue STEM learning. The 4<sup>th</sup> annual g4g day Cincinnati will be held at the University of Cincinnati (UC) on May 6<sup>th</sup>. Read about g4g Day Cincy 2019's day [here](#).

### Summer of STEM



GCSC provides partners with "camps-in-a-box" that contain curriculum, materials, and professional development to engage students in hands-on, project-based learning with a specific STEM focus during the summer. Concludes with the End of Summer / Back to School STEM Festival. The application window for Summer of STEM 2020 camps will open on December 18<sup>th</sup>, 2019. Visit the [Summer of STEM](#) homepage to learn more.

## 2020-2021 Opportunities

Let us know if you are interested in staying up to date with these opportunities and joining an “interest list” for them by emailing us at [gcscstemed@gmail.com](mailto:gcscstemed@gmail.com)!

### STEM Bicycle Club



#### STEM bicycle club

Students reverse engineer bicycles by looking at and adjusting one specific bicycle sub-system a week while strengthening critical thinking, problem solving and perseverance skills. In 2018-2019 350 students were served in 21 “after school, at school” clubs. Visit the [STEM Bicycle Club homepage](#) to learn more about it.

### 3d Printers Club



#### 3d printers club

Over the course of 10 weeks, usually in an at-school, after-school setting, students work through their specific curricula to strengthen problem solving and design skills, learn CAD (computer aided design) software, and 3D printing basics. In 2018-2019 800 students were served in 49 clubs. Visit the [3d Printers Club homepage](#) for more information.

### Ohio STEM/STEAM Lab Teachers Professional Learning Community

The PLC includes 25 teachers from six southwest Ohio school districts. The program is designed by Northern Kentucky University’s Center for Integrative Natural Science and Mathematics (CINSAM), to advance teachers’ skills, experience, and confidence leading engaged student learning. Teachers observe “master teachers” deliver a STEM/STEAM lesson in an innovative, in-classroom “fishbowl” format that is followed by reflection of best practices seen in the lesson. Read about the 2018-2019 PLC [here](#).

### STEM Gardeners



#### stem gardeners

Working as either a classroom curriculum or after school club, this program helps students in 4<sup>th</sup>-6<sup>th</sup> grades learn how to create sustainable gardens. Focuses on the math, making, science, and engineering that goes into gardening. There is an opportunity to join this year’s multi-school cohort of based on interest; contact GCSC at [gcscstemed@gmail.com](mailto:gcscstemed@gmail.com) for more information.

## **Collaborators**

GCSC collaborators include a wide variety of partners across the three-state, Greater Cincinnati region. Formal K-12 educators, informal educators from local museums and science programs and STEM-focused non-profits, and for-profit business / industry partners. These members are the energy behind making Greater Cincinnati region a leader in STEM education. Some GCSC partners are:

#### Education

*Cincinnati Public Schools*  
*Boone County Schools*  
*Hamilton County Education Services Center*  
*University of Cincinnati*  
*Northern Kentucky University*

#### Business

*P&G*  
*Duke Energy*  
*GE*  
*Polar 3D*  
*Kroger Technology*  
*Tata Consultancy Services*

#### Community Partners

*Partners for a Competitive Workforce*  
*Cincinnati Museum Center*  
*Public Library of Cincinnati and Hamilton County*  
*Wave Foundation/ Newport Aquarium*

## **Contact and Connect with GCSC!**

**Website:** [www.greatercincystem.org](http://www.greatercincystem.org)

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