

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

**THE KENTON COUNTY BOARD OF  
EDUCATION**

1055 EATON DRIVE, FORT WRIGHT, KENTUCKY  
41017

TELEPHONE: (859) 344-8888 / FAX: (859) 344-1531

WEBSITE: [www.kenton.kyschools.us](http://www.kenton.kyschools.us)

*Dr. Henry Webb, Superintendent of Schools*

**KCSD ISSUE PAPER**

**DATE:**

February 12, 2018

**AGENDA ITEM (ACTION ITEM):**

Consider/Approve Approve Piner's application for the GE Additive Education Program 2018-19  
3D Printer Grant

**APPLICABLE BOARD POLICY:**

General Powers and Duties of the Board 01.11

**HISTORY/BACKGROUND:**

Piner Elementary would like to expand our STEAM (Science, Technology, Engineering, Arts, and Math) learning opportunities. This grant will provide us with a 3D printer to incorporate into our STEAM learning and projects.

**FISCAL/BUDGETARY IMPACT:**

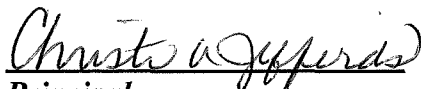
It is anticipated that the value of the 3D printer would be approximately \$2000.00

**RECOMMENDATION:**

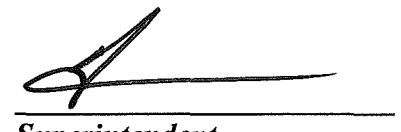
Approval for Piner Elementary to apply for the GE 3D Printer grant is recommended

**CONTACT PERSON:**

Christi A. Jefferds

  
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.*"

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GE Additive

**GE ADDITIVE EDUCATION PROGRAM: 2018 - 2019**

General Electric's Additive Education program, providing 3D printers (metal and polymer) and related curriculum to educational institutions.

## Primary and Secondary Schools (Ages 8-18)

Welcome to the GE Additive Education Program  
(the "Program")!

Primary and secondary schools not presently participating in the Program are eligible and encouraged to apply. Candidates applying on behalf of multiple schools should complete one application per school and should also consider applying under the AEP Discount Program for additional benefits.

### Selection Criteria

Applicants will be reviewed and selections based on a variety of factors including, but not limited to:

1. Geography: the Program is global.
2. Leaders: preference to schools that commit to drive student access, engagement and to showcase student & classroom works on the platform
3. Talent: preference to schools that commit to participate in Program Challenges and other Program activities aimed to reward student and classroom performance.
4. Potential: preference to schools that lack 3D printing equipment (0-3 printers) but have a strong commitment to STEAM and the resources necessary to drive student access and engagement on the platform.

**APPLY**

Opens

19 Jan 2018 12:00 AM (EST)

Deadline

28 Feb 2018 12:00 AM (EST)

5. Ambassadors: preference to schools that are experienced with 3D printing and willing to be very active on the platform including supporting other Program schools, educators and students.

### **What is Expected of Selected Schools**

The Program is building an ecosystem for 3D printing in education by networking students, machines and content via an online platform, the Polar Cloud. Educators and students from participating schools join the Polar Cloud to access the tools being provided under the Program, including 3D printers, curricula, design software, apps, competitions and more in a collaborative and secure environment.

Participating schools can help grow the ecosystem and the value it provides students by:

1. Access: get as many students, parents and educators as possible on the platform.
2. Access: connecting the 3D printers to the Polar Cloud and making them available "share" with educators and students.
3. Engagement: be active, utilize the curricula, encourage students to use the design tools, participate in Program competitions, collaborate on the platform, be entrepreneurial.
4. Engagement: print, print, print.

Thank you for your consideration. Good luck!

# Application: 0552800026

Christi Jefferds - christi.jefferds@kenton.kyschools.us  
Primary and Secondary Schools (Ages 8-18)

## Summary

**ID:** 0552800026

**Last submitted:** 13 Feb 2018 12:39 PM (EST)

**Labels:** Schools with 0 Printers

## Initial Application - Primary & Secondary Schools

**Completed** - 13 Feb 2018 12:34 PM (EST)

## Application Form

### 1. In what country is your school located?

United States

## Address

Street Address	2845 Piner Ridge Rd
State	Kentucky
City	Morning View
Zip Code	41063

### 2. School Name

Piner Elementary

### 3. School District Name (if applicable)

Kenton County School District

#### 4. School Website

Copy and paste your school's URL

<http://www.kenton.kyschools.us/34/Home>

#### 5. Has your school previously applied for this program?

Yes

#### 5.1 Has your school previously received an award for this program?

No

#### 6. Choose the age ranges that best describe students who attend your school:

Choose all that apply

##### Responses Selected:

Ages 8-11 (Grades 3-5)

#### 7. How many students are there at your school?

350

#### 8. How many students will have access to the program's materials, if awarded?

200

#### 9. Do students have school email addresses?

Yes

#### 9.1 Who provides student email addresses?

Microsoft Office 365

## **10. What Learning Management System does your school currently use, if any?**

### **Responses Selected:**

Google Classroom

## **11. Devices your students use in the classroom:**

### **Responses Selected:**

Android Tablets (Amazon Fire, Samsung)

Apple Tablets (iPad, iPad Mini)

Chromebooks

Windows Computer

## **12. How is student access to devices managed?**

Check all choices that describe device access at your school

### **Responses Selected:**

Computer Lab

Technology Checkout

Library

## **13. Do you have an embedded/integrated STEM curriculum?**

Yes

### **13.1 Describe your embedded/integrated STEM curriculum:**

Our school is the smallest, most rural school in our district with a 53% free and reduced lunch rate. We are a schoolwide Title I school. Classroom teachers, especially in the intermediate grades, often integrate STEM and STEAM within their New Generation Science Standards Instruction. STEM activities in each NGSS unit are used to allow the students hands-on and creative outlets to reinforce the content and vocabulary that they have learned within specific units. The students integrate their science content/information with engineering concepts. Students may be required to make calculations/graphs (math) or illustrations/diagrams (art)

during content lessons or during labs. The students use technology throughout their science content/information while conducting science labs.

Additionally, STEAM and STEM are part of the instruction that takes place when students attend library and computer lab specials. Examples include when students make book projects as they participate in the Kentucky Bluegrass Awards Program. Students create robots from various computer parts as they learn about the parts of a computer in computer lab specials and learn coding to program the robots. When students study Native Americans and Thanksgiving, related STEAM/STEM projects are created during library specials. The Fine Arts teachers and the STEM teacher, also the media specialist, have collaborated to allow the students to create STEM projects that they will wear during their performances for parents and community members on Fine Arts Night.

Our students participate in project-based learning entitled Genius Hour. Students are given the choice to research what they are passionate about rather than being assigned a subject upon which to conduct research, and then create a project to share their learning with their peers.

Our school schedule allows for students to have a STEAM/STEM day on a three-week rotation. When students come to their STEM/STEAM day, they participate in STEM/STEAM centers. These centers involve engineering, science, mathematics, and art. The Library Media Specialist collaborates with general education teachers to enhance their curriculum with STEM/STEAM projects.

Students in our afterschool 21st Century Learning Center program experience STEM and STEAM instruction as one of their self-selected activities. The 21st Century Program uses materials that have been purchased for that program as well as the school STEM materials. Our 2018 Summer Learning Program, "The Summer of STEAM", will focus learning activities for a total of 54 hours for students in grades 1-5 in the area of STEAM using existing materials from the school and the 21st Century programs. Activities will include "Rockin Robots", "Design and Making", and "PBL: School Garden."

#### **14. Do you currently have a 3D Printer at your school?**

No

**To get the best experience with the 3D printers and optimize learning, we encourage as many students as possible to be on the Polar Cloud and participating in platform activities.**

**15. As part of the commitment to the program, do you anticipate that your school will be able to do the following:**

Student body and appropriate faculty joining the Polar Cloud	Yes
Connecting 3D printers to the Polar Cloud for student access	Yes
Students designing models and sharing on the Polar Cloud	Yes
3D printing models and being active on the Polar Cloud	Yes
Integrate 3D printers into your STEM curriculum	Yes

**16. Primary Contact Information**

First Name	Christi
Last Name	Jefferds
Email	<a href="mailto:christi.jefferds@kenton.kyschools.us">christi.jefferds@kenton.kyschools.us</a>
Contact Phone	8593226135
School Phone	8593562155
Title/Position	Principal

**17. Would you like to add an additional contact?**

Yes



## 17.1 Secondary Contact Information

First Name	Carol Jo
Last Name	Taylor
Email	<a href="mailto:caroljo.taylor@kenton.kyschools.us">caroljo.taylor@kenton.kyschools.us</a>
Contact Phone	8593562155
School Phone	8593562155
Title/Position	Library Media Specialist

## 17.2 Whom should we contact for additional information?

Primary Contact (Question 16)

## 18. Additional Comments:

Due to our school's small operational budget and the fact that our students have limited access to technology outside of school (most of our families don't even have internet access at home due to the rural nature of our location), a 3D Printer would greatly enhance our STEM/STEAM instruction. We strive to prepare our students for college and future careers in the 21st Century, and having the right tools to do so improves the effectiveness of our efforts. Should we be granted a 3D Printer by GE, we plan to join the 3D Printer's Club offered by the Greater Cincinnati STEM Collaborative, as well as incorporate it into our school's instructional program, our 21st Century Learning Center program, and our summer learning "Summer of STEAM" program. Our goal is to provide multiple types of technology access to as many students as possible. Thank you for your consideration.

## Additional File Upload

**Incomplete**

If you would like to add a document, audio, or video file for additional consideration, you may do so here.