



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:**

01/05/17

**AGENDA ITEM (ACTION ITEM):**

The Kenton County Academy of Innovation and Technology is applying for Project Lead the Way Grants supported by Toyota. We are applying once for the Engineering Academy, and a second time for the Informatics Academy. These grants, which is to promote Project Lead the Way curriculum, will be used to go towards paying for teacher training and purchasing equipment. Each grant awards \$35,000 over the course of three years and is not a matching grant. It is unknown if we will be able to reapply once the grant period ends.

**APPLICABLE BOARD POLICY:**

N/A

**HISTORY/BACKGROUND:**

The academy teachers apply for grants that fit into their program.

**FISCAL/BUDGETARY IMPACT:**

Possible gain of \$70,000 for Academy

**RECOMMENDATION:**

It is recommended that the board approve applying for the Toyota Grant.

**CONTACT PERSON:**

Sara Anderson, M.S. Ed.

*Principal*

*Director*

*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.*"

**Personal and Contact Information**

First Name\*

Sara

Last Name\*

Anderson

Phone\*

859-341-2266

Extension

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Email\*

Sara.Anderson@kenton.kyschools.us

Which of the following roles best describes you?\*

☐

Career and Technical Education Administrator

☐

Principal/Assistant Principal

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Chief Academic Officer/Director of Curriculum

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Program/Curriculum Coordinator

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Grants Administrator

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**Please tell us how your school heard about the PLTW Grant Program.\***☐

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Corporate or Foundation Partner

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Existing PLTW School

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Email from PLTW

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News and Media

☐

Event

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PLTW Team Member

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PLTW Website

☐

Referral from PLTW District/School

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Social Media

**Which PLTW program are you seeking to receive grant support in this application (please select only one program per application)?\***☐

PLTW Launch (K-5)

☐

PLTW Computer Science (9-12)

☐

PLTW Gateway (6-8)

☐

PLTW Biomedical Science (9-12)

☒

PLTW Engineering (9-12)



### School and District Information

Which best describes your school?\*

- ☒ Public
- ☐ Private
- ☐ Career and Technical Education Center

Does your school belong to a network or have a larger governing structure that is involved in signing or coordinating contracted services (e.g. district)?\*

- ☒ Yes
- ☐ No

### School Information

School Name\*

Kenton County Academy of Innovation and Technology

Address 1\*

3234 Turkeyfoot Rd

Address 2

City\*

Edgewood

State\*

KY

Zip Code\*

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**If you already offer the program for which you are requesting grant support, please select the way(s) you plan to expand the program next year.\***

☒ Add another course

Enter the name of additional courses (see PLTW course list on [www.pltw.org](http://www.pltw.org))

Cybersecurity and Computer Science Essentials

☒ Send at least one teacher to PLTW training

Number of teachers to attend PLTW training:

1

☒ Add at least one additional section of an existing course

☒ Purchase or upgrade additional equipment

☐ Other

**Please provide a description of those expansion plans (e.g. why your school plans to add that specific course, how many sections will be added to which course, how many teachers will be attending training for which course, which equipment and supplies to be purchased, etc.). Please limit your response to a maximum of 200 words.\***

We plan on adding in two courses next year for our Computer Science Academy: Cybersecurity for our seniors and Computer Science Essentials for the new round of freshmen. We have a new PLTW teacher who was hired right before the start of the school year. While she is very knowledgeable about her content, Mrs. Brown did not have time to attend core training this summer. She is currently taking online core training classes to teach Computer Science Principles and Computer Science A. Those classes are being taught to first and second year students in the program respectively. Mrs. Brown will be attending core training twice this upcoming summer, if we are accepted into the Cybersecurity pilot program. We are advocating strongly to be let in and used as a test class for PLTW since we have been in the past for other courses. With new courses comes new technology that needs to be purchased to fulfill the curriculum's needs.

**If you do not currently already offer a PLTW program, what courses is your school interested in implementing next year?\***

Enter the name of courses (see PLTW course list on [www.pltw.org](http://www.pltw.org))



## PLTW Grant Application

**Please select all of the grades in your school:\***

<input type="checkbox"/> Pre-K	<input type="checkbox"/> 3 <sup>rd</sup> Grade	<input type="checkbox"/> 7th Grade	<input checked="" type="checkbox"/> 11th Grade
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Some PLTW grants may have specific demographic eligibility requirements. We will use the information provided below to determine your organization's eligibility for these types of grants.

**Please provide student enrollment information:\***

Total Student Enrollment:

575

**Student Enrollment by Ethnicity:\*** Please provide the total number of students for each ethnicity, NOT percentages:

American Indian/Alaskan	1	Hispanic/Latino	20
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Black/African American	12	Two or More Races	13

**Student Enrollment by eligibility for free/reduced price meals:\*** Please provide the total number of students receiving free or reduced price lunches. Do NOT use percentages, and do NOT double count students.

Free Lunch Eligible

152

Reduced-Price Lunch Eligible

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**PLTW at Your School**

**Which of the following individuals have been involved in discussions regarding implementing and supporting PLTW programs?\*** *(Select all that apply)*

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Career and Technical Education Staff          | <input checked="" type="checkbox"/> School Board                               |
| <input checked="" type="checkbox"/> Chief Academic Officer/Director of Curriculum | <input checked="" type="checkbox"/> Students and Parents                       |
| <input checked="" type="checkbox"/> Information Technology Staff                  | <input checked="" type="checkbox"/> Superintendent or Assistant Superintendent |
| <input checked="" type="checkbox"/> Principal or Assistant Principal              | <input checked="" type="checkbox"/> Teachers                                   |
| <input checked="" type="checkbox"/> Program/Curriculum Coordinator                |  |

**Please share how your school has prepared for your PLTW programs.\***  
*(Select all that apply)*

- ☐ Estimated program investment using the [PLTW Investment Tool](#)
- ☒ Consulted with IT staff regarding [technology requirements](#)
- ☒ Gathered input from administrators and/or teachers with previous PLTW experience
- ☒ Determined how to schedule PLTW during the school day
- ☒ Connected with another PLTW district or school
- ☒ Identified potential PLTW teacher(s)
- ☒ Attended a PLTW event or conference
- ☒ Engaged community and/or business stakeholders for support

Referencing the individuals and activities you selected above as a guide, provide a narrative of the involvement and support of those individuals during your school's planning activities for PLTW next year.\*

Our academy operates on the "pull method." This means that we are constantly making decisions as administrators, curriculum directors, and teachers are tweaking class and content schedules to motivate students to step up and be elite scholars. Each year, as a student moves forward in the program, the number of seats available to them decreases. This gives students a real-world taste for what it will feel like to get into select college and graduate programs, as well as their future careers. Doing this also gives room in our teachers' schedules to teach as many PLTW courses as they can during the day and school year.

Describe the current role(s) of the individual(s) you have identified as a PLTW teacher and why they were selected. If you have not yet selected a PLTW teacher, describe the plan for selecting this person and what qualities you will seek in a candidate.\*

Our Computer Science Academy is comprised of three teachers. Mrs. Sarah Brown is our Computer Science teacher. She is also in charge of supervising and maintaining all technology in our school building. Mrs. Brown has recruited her computer science students to help her in this role and assigned them duties to help with maintenance and upkeep.

The other two teachers also teach their students different languages to tie-in to their knowledge of computer coding. Mrs. Casey Wolfe covers the English class for the Academy. She teaches language arts and AP courses to the computer science students

Mrs. Kristen McKinley is in charge of teaching the language of math to these scholars.

All three were chosen for their ability to weave the other teachers' curriculum into their own and to work collaboratively to bring the computer science content to life.

In what grade levels are you interested in making PLTW courses available to students?\*

- |  |   |  |  |
|--|---|--|--|
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**What is your plan for incorporating PLTW programs into the class schedule?\***

Please limit your response to a maximum of 200 words.

We are huge supporters of the PLTW curriculum at our school. If we could work it into every pathway we offer, we would. Currently it is implemented in half of our pathways: our two engineering academies, biomedical sciences, and computer science. Students in those pathways spend half a day in our program. During that time they take two content classes—math and science or language arts—as well as a PLTW elective class. We recognize the importance of showing students that what they learn in content classes is knowledge they will truly need in their future career; therefore, content teachers must connect their lesson plans to what is happening in the PLTW elective class at least once a week. Our goal is for students to graduate from our program with a minimum of three PLTW courses under their belt. Some will have up to eight courses completed.

**Will all students be required to take at least one PLTW course at some point during their years enrolled at your school?\***

- ☐ Yes, all students at our school will be required to participate in at least one PLTW course while enrolled at our school.
- ☒ No, we will offer PLTW as an optional offering.

**If you answered no above, please describe in detail your organization's plan to drive student enrollment in PLTW programs.\* Please limit your response to a maximum of 200 words.**

Every year, Academy representatives talk to every middle and high school student in our district. This requires a lot of time as we are the fifth largest district in the commonwealth, but it is worth it. Students are shown what they will accomplish in the various academies and pathways. The PLTW academies are always the most popular because of all the hands-on activities and projects that students can learn from. In addition, students are drawn into the Computer Science academy with the offer to be part of a VEX Robotics team and the allure of designing apps and programs. We also use word of mouth from students to their friends who are not enrolled in our programs. We also have our application process set up to let in as many students as possible into our pathways. We do not have a minimum GPA to accepted; we just require that the student be on track to graduate on time and that they do not have any major discipline problems.

**Describe how you will engage traditionally underrepresented populations.\* Please limit your response to a maximum of 200 words.**

We do our best to make sure all students are welcomed into our computer science classes. We do not target or market to solely high-level students. We welcome those that want to go to Ivy League schools just as much that want to graduate high school and go to a trade school. In addition, we have an all-female staff for the classes who will work with the students one-on-one to guide them through decisions on where to go to school and how to handle working in a male-dominated field.



## PLTW Grant Application

**Will you have any academic, enrollment, or application requirements for students who want to participate in PLTW programs (e.g. prerequisites, GPA requirements, application process, etc.)?\***

☒ Yes

☐ No

**If you answer yes above, please describe these requirements:**

There is an application process to get into our program. There are three requirements a student must satisfy in order to be accepted. The first is that they must be on track to graduate on time. This doesn't mean that they have to be taken a certain amount of AP or dual-credit courses, just that they are on track to graduate. There is no GPA requirement. We want to be just as accepting to the D average student as the valedictorian because we believe they both should have the chance to experience this program. The other two requirements are that the student not have an excess of unexcused absences and that they not have any major discipline issues on their record.

**Will students or their families pay a fee to participate in PLTW programs?\***

☒ Yes

☐ No

**Please describe the required fees for students:**

This is the first year we have had to ask students to pay a fee to be part of our programs. It was our absolute last straw, but without it, we would not be able to pay for things like entry fees to VEX Robotics competitions. We will have to continue to charge students a fee of sixty dollars. This money will go towards purchasing any optional equipment that cannot be covered with our budget, any VEX-related costs, and any consumables that need to be purchased at a store rather than by a purchase order.

## Growing and Sustaining Your PLTW Program

PLTW grants are designed to help schools establish or expand PLTW programs in a way that can be sustained and grown over time.

**Please share your vision for PLTW programs in your school, including course offerings, student and teacher engagement, community involvement and the overall impact you expect the programs to have.\*** Please be specific. Please limit your response to a maximum of 200 words.

The vision for our Computer Science program is to move ever forward. We switched around staff over the summer, so the three teachers in charge of the academy are new to the curriculum and bring a fresh perspective to the classes. We are in the process of building some strong relationships with technology and entrepreneur firms in our area. We are always looking to strengthen those bonds as well as to make new ones. Our advisory board contains both professionals in the field as well as professors at nearby post-secondary institutions, both of which serve ready to assist our students in their post-graduation decisions. We also want to start building up community service experience for our students to take the knowledge they've gained in class and use it to help others around them.

**How do you plan to financially support your PLTW program after the grant period ends?\*** Please limit your response to a maximum of 200 words.

We do have plans in place to financially support our program once grant funding expires. We will use our district funding, our state-provided LOCTE funds for career and technology education, as well as federally-dispersed Perkins funds to acquire new technology for our classrooms. In addition, we will get to supplement this slightly with the fees that will be charged to students who wish to participate in extra curricular activities with us, like VEX Robotics.

**How important is receiving a grant from PLTW in helping support your PLTW program?\***

- ☐ Critical-without a PLTW grant we would not participate
- ☒ Very Important-without a PLTW grant, our program would be a significantly different
- ☐ Important-without a PLTW grant, our program could be slightly different
- ☐ Less important-there could be other funding, but a grant helps offset costs for our program.



### **Additional Information**

**Please feel free to include any additional information regarding your school or its plan for implementing PLTW programs including special initiatives, community partnerships, implementation plans, etc. Please limit your response to a maximum of 100 words.**







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☒ Add another course

Enter the name of additional courses (see PLTW course list on [www.pltw.org](http://www.pltw.org))

Environmental Sustainability

☒ Send at least one teacher to PLTW training

Number of teachers to attend PLTW training:

2

☒ Add at least one additional section of an existing course

☒ Purchase or upgrade additional equipment

☐ Other

**Please provide a description of those expansion plans (e.g. why your school plans to add that specific course, how many sections will be added to which course, how many teachers will be attending training for which course, which equipment and supplies to be purchased, etc.). Please limit your response to a maximum of 200 words.\***

We plan on adding Environmental Sustainability to our course offerings for two reasons. The first is that it is currently the only PLTW Engineering class that we do not offer. The second is that our Clean Energy students have been transferred into the Engineering academy, and we want to offer them a course that focuses on their interest. We will have at least two teachers attending core training this summer for at least one session. We do our best to send our teachers to our closest affiliate (University of Kentucky) in order to conserve as much cost as possible, but UK does not always offer the core trainings our teachers need. In addition, we would be using funds to update our equipment. Our engineering equipment is nine years old, which is ancient in technology time. We would use the money to upgrade and replace some of our older pieces of equipment.

**If you do not currently already offer a PLTW program, what courses is your school interested in implementing next year?\***

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**Please select all of the grades in your school:\***

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Describe the current role(s) of the individual(s) you have identified as a PLTW teacher and why they were selected. If you have not yet selected a PLTW teacher, describe the plan for selecting this person and what qualities you will seek in a candidate.\*

Our Engineering Academy is comprised of six teachers. Mr. Adam Klaine and Mrs. Sarah Brown are in charge of teaching the PLTW Engineering classes. Mr. Klaine has attended Core Training for all Engineering classes except Environmental Sustainability. Mrs. Sarah Brown is a new addition to the team; she is also our Computer Science teacher. This helps her find connections between the Engineer and Computer Science courses so that the two Academies can overlap and work together on large, independent projects.

Ms. Alyssa Leimenstoll and Mrs. Laurie Dirr cover the English classes for the Academy. Even though language is their focus, Ms. Leimenstoll has gone through IED training to better connect her class content with what her students are learning in their Engineering classes.

Mr. Ian Olano and Mr. Brian Noll teach the math classes for the Academy. Both have gone through core training to better implement elective curriculum into their core content classes.

In what grade levels are you interested in making PLTW courses available to students?\*

- |  |   |  |  |
|--|---|--|--|
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**What is your plan for incorporating PLTW programs into the class schedule?\***

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Every year, Academy representatives talk to every middle and high school student in our district. This requires a lot of time as we are the fifth largest district in the commonwealth, but it is worth it. Students are shown what they will accomplish in the various academies and pathways. The PLTW academies are always the most popular because of all the hands-on activities and projects that students can learn from. In addition, students are drawn into the Engineering academy with the offer to be part of a VEX Robotics team. We also use word of mouth from students to their friends who are not enrolled in our programs. We also have our application process set up to let in as many students as possible into our pathways. We do not have a minimum GPA to accepted; we just require that the student be on track to graduate on time and that they do not have any major discipline problems.

**Describe how you will engage traditionally underrepresented populations.\* Please limit your response to a maximum of 200 words.**

We do our best to make sure all students are welcomed into our Engineering classes. We do not target or market to solely high-level students. We welcome those that want to go to Ivy League schools just as much that want to graduate high school and go to a trade school. In addition, we have an entire Academy devoted to Women in Engineering. We work to get each student a mentor who is a female engineer in a nearby company or firm who will work with the student one-on-one to guide them through decisions on where to go to school and how to handle working in a male-dominated field.



**Will you have any academic, enrollment, or application requirements for students who want to participate in PLTW programs (e.g. prerequisites, GPA requirements, application process, etc.)?\***

☒ Yes

☐ No

**If you answer yes above, please describe these requirements:**

There is an application process to get into our program. There are three requirements a student must satisfy in order to be accepted. The first is that they must be on track to graduate on time. This doesn't mean that they have to be taken a certain amount of AP or dual-credit courses, just that they are on track to graduate. There is no GPA requirement. We want to be just as accepting to the D average student as the valedictorian because we believe they both should have the chance to experience this program. The other two requirements are that the student not have an excess of unexcused absences and that they not have any major discipline issues on their record.

**Will students or their families pay a fee to participate in PLTW programs?\***

☒ Yes

☐ No

**Please describe the required fees for students:**

This is the first year we have had to ask students to pay a fee to be part of our programs. It was our absolute last straw, but without it, we would not be able to pay for things like entry fees to VEX Robotics competitions. We will have to continue to charge students a fee of sixty dollars. This money will go towards purchasing any optional equipment that cannot be covered with our budget, any VEX-related costs, and any consumables that need to be purchased at a store rather than by a purchase order.

## Growing and Sustaining Your PLTW Program

PLTW grants are designed to help schools establish or expand PLTW programs in a way that can be sustained and grown over time.

**Please share your vision for PLTW programs in your school, including course offerings, student and teacher engagement, community involvement and the overall impact you expect the programs to have.\*** Please be specific. Please limit your response to a maximum of 200 words.

The vision for our Engineering program is to move ever forward. We currently have built some strong relationships with manufacturing and engineering firms in our area. We are always looking to strengthen those bonds as well as to make new ones. Our advisory board contains both professionals in the field as well as professors at nearby post-secondary institutions, both of which serve ready to assist our students in their post-graduation decisions. We also want to start building up community service experience for our students to take the knowledge they've gained in class and use it to help others around them.

**How do you plan to financially support your PLTW program after the grant period ends?\*** Please limit your response to a maximum of 200 words.

We do have plans in place to financially support our program once grant funding expires. We will use our district funding, our state-provided LOCTE funds for career and technology education, as well as federally-dispersed Perkins funds to acquire new technology for our classrooms. In addition, we will get to supplement this slightly with the fees that will be charged to students who wish to participate in extra curricular activities with us, like VEX Robotics.

**How important is receiving a grant from PLTW in helping support your PLTW program?\***

- ☐ Critical-without a PLTW grant we would not participate
- ☒ Very Important-without a PLTW grant, our program would be a significantly different
- ☐ Important-without a PLTW grant, our program could be slightly different
- ☐ Less important-there could be other funding, but a grant helps offset costs for our program.



### **Additional Information**

**Please feel free to include any additional information regarding your school or its plan for implementing PLTW programs including special initiatives, community partnerships, implementation plans, etc. Please limit your response to a maximum of 100 words.**



