Robotic in MCCSC

*Miford Elementary Student working on a VEX IQ robot at the MCCSC Evening of Code

Features

MCCSC Evening of Code
Project Green Challenge Winner
MCCSC Gives Back

Mission of the Monroe County Community School Corporation
Empowering students to maximize their educational success to become productive, responsible global citizens.

Engage, Empower, Educate.

@MCCSC_EDU  (812) 330-7700  Monroe County Community School Corporation  www.mcssc.edu
MCCSC CORE VALUES

Value 1: Engagement
All students can learn. We teach all students. No exceptions. All students deserve rigorous, diverse curricular and extracurricular programs, integrated with technology. Such programs balance students’ needs and interests, resulting in high levels of student engagement, achievement and completion.

Value 2: Empowerment
All students are diverse and unique. When students are empowered, self-esteem grows. All students’ experiences and perspectives are assets that reflect the strength of our schools and the values of our community. Such assets, when respected, nurtured and explored, promote their academic success and the success of their peers.

Value 3: Environment
All students thrive in a positive, creative and stimulating learning and working environment. All employees excel in a culture actively supported by professional development opportunities. Highly-trained, highly-valued teachers and staff are pivotal to the continuous improvement and success of our students. All students deserve, and we will provide, a healthy, safe and secure learning environment.

ENGAGE. EMPOWER. EDUCATE.

MCCSC Evening of Code

Jeff Rudkin
Congratulations to Batchelor Middle School’s Jeff Rudkin on being awarded The Peacemakers Corps Association’s 2018 “Art of Making Peace” Award. He was honored at a ceremony at the United Nations in November.

Stephanie Benham
Congratulations to Bloomington High School South teacher Stephanie Benham on being recognized as the 2018 Melody Martin Awareness Saves Lives Award Recipient at the 2018 Bloomington Breast Cancer Awareness Walk! Her Pink Chain Project is in its 6th year!

Katy Sparks
The Indiana Department of Education has named MCCSC STEM and Computer Science Coach Katy Sparks as an Indiana CS (Computer Science) Champ. Other teachers around the state will seek out these CS Champs to ask questions or seek advice about computer science education.

Tim Pritchett
The Indiana Department of Education has named MCCSC Director of Technology Tim Pritchett to the inaugural Cybersecurity Task Force. He, along with other selected members from around Indiana, will be working throughout the year on strengthening Indiana’s K-12 cybersecurity practices.
Inviting You this Holiday Season to...

GIVE THE GIFT OF A LUNCH

TO THE FOUNDATION OF MONROE COUNTY COMMUNITY SCHOOLS

FOOD ASSISTANCE FUND

www.MCCSC.edu/GiftofLunch

$25 = 8 Lunches

$100 = 35 Lunches

3 WAYS TO DONATE

1. MAIL A CHECK made payable to FMCCS to 315 North Drive, Bloomington IN 47401 with the memo of Food Assistance.

2. Visit www.MCCSC.edu/GiftofLunch and make a donation online. Please select “Food Assistance Fund” during the process. If you would like to set your gift to be a recurring gift for this fund you may do so by selecting the “Show my support by making this a recurring gift”

3. Parents can add funds directly to the Food Assistance Fund in their MyPaymentsPlus cart when checking out!

Thank you very much for your support of MCCSC students!

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$100 = 35 Lunches
This year, MCCSC held its second annual Evening of Code during the week of December 3rd for national Computer Science Education Week. While all MCCSC students participated in coding events during the school day, the MCCSC Evening of Code was an opportunity for families to join.

The events held at Bloomington High School's North and South included working through Minecraft, Star Wars, and Angry Birds computer coding challenges on Code.org, creating binary bracelets, and Code your Parents. Several MCCSC Robotics teams were in attendance and were showing off their competition robots to future team members.

Can you help me to catch the naughty pig? Stack a couple of “move forward" blocks together and press “Run” to help me get there.

(Coding BeeBots)
(Coding Robots)
(Coding Binary Bracelets)
(Coding Chess Programs)
(Coding Robots)
Robotics in MCCSC

Did you know that MCCSC is home to over a dozen robotics teams that participate in everything from the FIRST Lego League to VEX IQ? MCCSC has robotics teams or clubs at eleven of our elementary schools and many of our middle and high schools.

The Lakeview ROARbotics team is one example of a group of students who are transforming their passion for technology, coding, and teamwork into success in state competitions. In competition with 23 teams, ROARbotics tied for fifth place on robot rankings and won the Research Award.

The Research Award was earned by completing a group project that provided a solution to a complex problem. ROARbotics researched how to quickly repair the International Space Station with limited time and resources in orbit. They showcased their research and award (right) at the MCCSC Evening of Code.

The Jackson Creek Beatlebots, former Lakeview ROARbotics members, competed in the regional competition in November at Purdue Polytechnic in Columbus where they placed 2nd in Robot Design & 4th overall to qualify for the state championship. The Beatlebots placed 12th in Robot Performance and received the top “Teamwork” trophy at the State competition.

Binford Elementary recently played host to the regional Bloomington VEX IQ Next Level Qualifying Event that blends elementary and middle schools into one competition. MCCSC sent fourteen VEX IQ robotics teams from Binford, Grandview, Highland Park, Summit, and University Elementary schools.

By its nature, the study of robotics inherently incorporates all four pillars of STEM. VEX IQ is a snap-together robotics system designed to provide future engineers of all skill levels an opportunity to explore advanced concepts integrating teamwork.

One of the more notable MCCSC robotics teams is the Quadrangles For Inspiration and Recognition of Science and Technology (FIRST) robotics team based out of Bloomington High School South. They have set out to develop robotic vehicles with wireless power capabilities. During the school year, the Quadrangles compete from January to April, with six weeks to create a robotic project and six to eight weeks of competition.

Bloomington High School South teacher Cindy Kvale coaches the team along with collaboration from NSWC Crane Power Systems Engineer Chris Hacker and NSWC Crane Electronics Technician Ben Cerveny.

Funded through the NSWC Crane Naval Innovative Science and Engineering (NISE) program, an engineering team from Naval Surface Warfare Center, Crane Division (NSWC Crane) recently established their first Cooperative Research and Development Agreement (CRADA) with the Quadrangles.

Through this program, students from the robotics team will design mobile and remotely controlled robotic base structure to meet detailed government specifications. They will then provide the design to the government along with a bill of materials.

After review and approval, the government will provide the required materials, and the students will complete the assembly. The U.S. Government will use the final product the students create for technology demonstration and evaluation.

The Quadrangles are always a fan favorite at local events. Their robots can play catch with you for endless fun! At the MCCSC Evening of Code, one of their robots was programmed to throw candy.

In September, the girls from the Quadrangles were guests at “RAGE” for Robotics All-Girls Event. This off-season event focuses on opportunities for girls in robotics. Only girls are allowed to drive the robot or be on the field.
The MCCSC 4th-grade Makerspace Challenge has a new IU partner in its second year. The challenge partnered with the IU School of Education MILL (Make Innovate Learn Lab) last year and provoked some great inventions that used students’ creativity to solve real-world problems. This year’s new partner is IU Health.

IU Health is constructing their new medical campus in a collaborative project with Indiana University, and it is scheduled to open sometime in 2020 on the campus of Indiana University Bloomington. The campus will be a destination for fitness, healing, learning, and wellness. The challenges this year are focused on creating and designing devices, activities, and spaces for the new hospital.

Makerspace is closely associated with STEM learning and is an approach to problem-based and project-based learning that relies upon hands-on, often collaborative, learning experiences as a method for solving authentic problems. This project includes a competitive element to increase student engagement.

Working in groups, students will select their challenge and work together to research, design, and build their project using cereal boxes, paper towel tubes, plastic water bottles, paper or plastic cups, paper plates, yarn, and one item brought from home. After building their project, students create and deliver persuasive digital presentations to classmates.

All schools winning projects will be on display in the MCCSC Co-Lab on January 16th at 6 PM for the Makerspace Challenge Showcase.

The 4th-grade Makerspace teams will choose from these challenges this year:

1. Create a device that improves the quality of life for all.
2. Create activities for children at the hospital.
3. Design the children’s space at the hospital.

JOIN US ON JANUARY 16th AT THE MCCSC CO-LAB FOR THE DISTRICT WINNER SHOWCASE

November 26-30: Week 1 - Introduction and Research
December 3-7: Week 2 - Build and Improve
December 10-14: Week 3 - Communicate (Presentation)
December 14: Projects and Google Slides Due
December 20: School Winners are Chosen
January 11: District Winners Announced
March 9: Lucas Oil Stadium Showcase
Bloomington High School South teacher Amanda Figo-lah introduced Project Green Challenge to her classes as an opportunity to help our local environment for class credit. What she did not know was junior Lara Breithaupt would win the Project Green Challenge. She outperformed over 6000 high school, college, and graduate students across the globe in a 30-day challenge in October designed to test the participants on their commitment and knowledge on environmental topics.

This year, there were 742 schools and 6012 students in 49 states and 56 countries participating. The thirteen finalists were flown to San Francisco to participate in presentations and group projects to determine the winner. As a part of Lara’s prize package, she received environmentally friendly products and foods along with $5000 to help in accomplishing a sustainability project or continued education. Lara spent over three hours a day during October to commit to the challenge.

Lara describes a presentation made to her class, “One of my favorite activities was giving a talk on the justice of climate change to around 50 of my peers. This topic encompasses the debate of who is to blame or who should pay for the effects of climate change. I was able to provoke meaningful conversation in the group about the issues surrounding this problem. Many of the students said they were willing to step up and take the initiative.”

Bloomington High School South as a school placed 17th, out of 742 high schools and colleges, in total points during the challenge.

In asking Lara about what is next for her and the environment, she said, “I want to study physics in college. Before this challenge, I thought that environmentalism and physics were on two separate sides of the STEM spectrum. After going through the finals process and listening to all of these different speakers from across the world in different fields of study, I learned that I could combine my passion of environmentalism into a career in physics.”

Pictures Top to Bottom: Lara poses with her Project Green Challenge Prize Package, Lara (middle) participating in group discussion on the environment with other finalists in San Francisco, Lara (front, 2nd from left) with all of the other global Project Green Challenge finalists.
MCCSC Gives Back

Bloomington and Monroe County are recognized for their strong community support and philanthropy. Our MCCSC students contributed to the needs of our community with these acts of service, items donated to causes, and funds given back to our community.

911 pounds raised for @HoosierHillsFB! Way to go Student Council and all @HP_Pandaste @PTOHIGHLANDPARK @MCCSC_EDU

JOIN US IN CELEBRATING THESE ACTS BY FOLLOWING #MCCSCGIVESBACK ON FACEBOOK, TWITTER, AND INSTAGRAM
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Rob Moore, Adult Education  
Craig Belt, Bloomington Graduation School  
Bloomington High School North  
Christi McBride, Hoosier Hills Career Center  
Mark Fletcher, Bloomington High School South  
Eric Gilpin, Batchelor Middle  
Dr. David Pillar, Jackson Creek Middle  
Adrienne Rae Floyd, Tri-North Middle School  
Micah Heath, Arlington Heights Elementary  
Chris Wilkins, Binford Elementary  
Chris Finley, Childs Elementary  
Eve Robertson, Clear Creek Elementary  
Marti Colglazier, Fairview Elementary  
Lisa Roberts, Grandview Elementary  
Cassidy Rockhill, Highland Park Elementary  
Angela Evans, Lakeview Elementary  
Tim Dowling, Marlin Elementary  
Mark Conrad, Rogers Elementary  
Nick McGinnis, Summit Elementary  
Rebecca Mungle, Templeton Elementary  
Lily Albright, Unionville Elementary  
Glen Hopkins, University Elementary

**CONTACT US**
Monroe County Community School Corporation  
315 E. North Drive | Bloomington, Indiana 47401-6595  
Phone: 812-330-7700 | Fax: 812-330-7813  
www.mccsc.edu

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**MCCSC SCHOOL BOARD SCHEDULE**
Calendar of Regular Meetings  
December 2018-January 2019  
Tuesday, December 18, 2018  
Tuesday, January 8, 2019  
(Annual Reorganization Meeting)

Meetings are each month at 6:00pm.

**IMPORTANT DATES**
December 21st - Built-In Snow Day (Used November 15th)
December 24th - January 4th - Winter Break - No School
January 16th - 4th-Grade Maker Mill Showcase  
MCCSC Co-Lab
January 21st - Martin Luther King Jr. Day - No School
February 18th - Built-In Snow Day