



Pro Excellentia



**Engage...Embrace
...Extend**

Students in Sarah Nartker's third grade class at Brantwood Elementary School in Riverside, Ohio, experiment with baking soda and vinegar to discover the difference between a solid, a liquid, and a gas. "The students are engaged in their learning and it excites them to want to learn and question more," she remarks. (see story pgs. 12-13)

Martha Holden Jennings Foundation

PRO EXCELLENTIA • ISSUE 2, 2018

*Dedicated to fostering
Excellent Teaching and Deep Learning
in Ohio's secular schools.*



The purpose of the Martha Holden Jennings Foundation is "to foster the development of individual capabilities of young people to the maximum extent through improving the quality of teaching in secular primary and secondary schools" and "to provide a means for greater accomplishment on the part of Ohio's teachers by encouraging creativity in teaching and bringing greater recognition to the teaching profession."

Pro Excellentia is published to describe a sampling of those efforts.

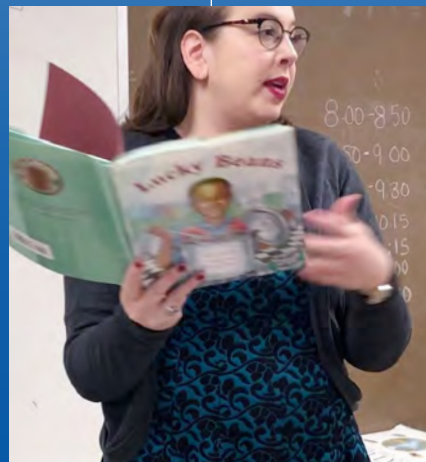
We ask that you please share this copy with colleagues who may gain valuable information and ideas from articles covered in this publication.

Mary Kay Binder, Editor

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educator excellence

Jennings Educator Recognition

Each year the Martha Holden Jennings Foundation recognizes and rewards a group of Ohio's effective teachers by presenting individuals with awards for their work. The honors are bestowed at the Foundation's Educator's Retreat. These professionals are admired by their colleagues, active in their communities, and have made long-standing achievements in their fields. Candidates are nominated by their school administrators, or in the case of the outstanding superintendents, by their school boards, and are selected by a panel of leading educators. The honorees receive cash awards to be used for educational projects of their choice.



The 2018 awardees are (l. to r.): **Joseph Konopinski**, Team Teaching Award, *Shaker Heights High School*; **Sarah Davis**, Team Teaching Award, *Shaker Heights High School*; **Charlene Tabata**, Master Teacher Award, *King Community Learning Center, Akron Public Schools*; **Kristen Foss**, George B. Chapman Jr. Teacher Award for Excellence in Mathematics Education, *East Canton Middle School, Osnaburg Local Schools*; **Brian Berger**, Team Teaching Award, *Shaker Heights High School*; **Thomas Hosler**, Ohio Superintendent Outstanding Performance Award, *Perrysburg Schools*; and **Roger Rabold**, Arthur S. Holden Teacher Award for Excellence in Science Education, *Dublin Scioto High School, Dublin City Schools* (not pictured).

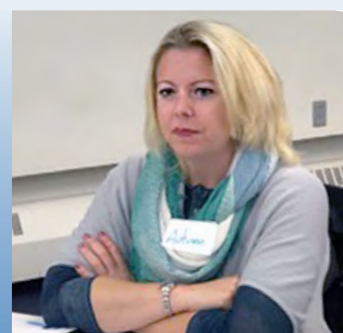
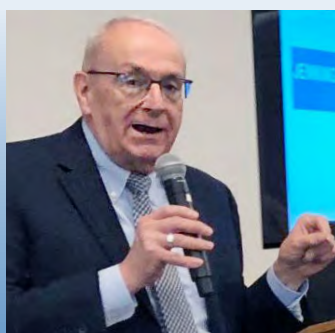
Jennings Educators Institute

The Jennings Educators Institute aims to energize educators, promote networking, and enhance classroom instruction through a series of three Saturday workshops held each fall. The Institute is open to administrators and teachers in selected areas of Ohio each year. Those who choose may continue to take the extra step to put their learning into practice by becoming a Jennings Fellow. These educators are required to design and implement lessons incorporating ideas presented at the Institute. They meet again in the spring to present their results and share experiences with their peers. In 2018 the Jennings Educators Institute was held at Kent State University.

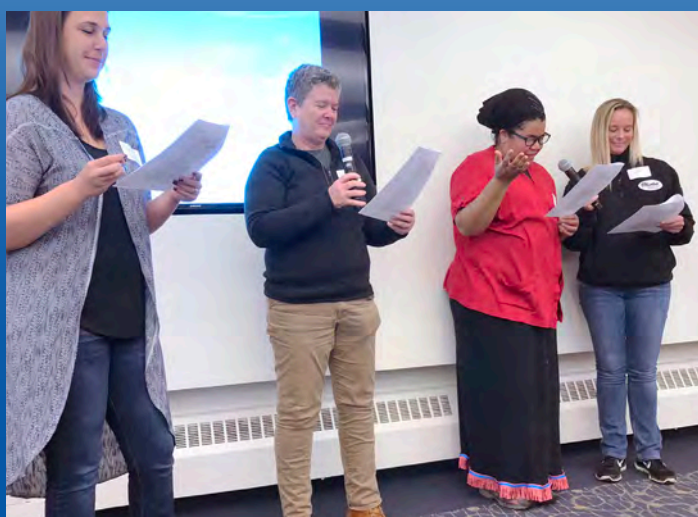
"I wanted to participate because I need to see and hear what my colleagues are thinking."

"As teachers we always have to be learning. If we are going to be teaching students effectively it's good for us to learn as well and be in their shoes from time to time. This is an opportunity to do that and meet with colleagues to talk about all kinds of different topics."

"My philosophy in my own life is that you need to learn something new every day. That means taking part in seminars like this so I can further my knowledge and become a better teacher for my students."



Jennings Institute presenter, Dr. Jim Connell (above, l.) addresses teachers regarding the Intersection of Curriculum Instruction, Assessment and Practice. He remarks: "If teachers don't talk enough about curriculum we are going to miss the opportunity to do the right thing for kids."



Outside Science

Chillicothe City Schools/Ross County Park District



First graders bundle up to hike in Buzzard's Roost Nature Preserve. They explore a small area with magnifying glasses and look for evidence of animal life.

Think...Observe...Wonder

That's the mantra of educators in Chillicothe City Schools who are teaching elementary students just how much they can learn out of doors. Through a newly-formed partnership with the Ross County Park District, students in grades K-6 are involved in a year-long, inquiry-based investigation of the plant and animal life that thrives in their locality. All 1,500 students will visit a county park at least three times during the academic year. They will participate in specially-designed activities that support design thinking and scientific investigation, all aligning to grade level content standards.

"The field experience directly connects desk learning with the world around us," explains Dana Letts, K-6 STEM instructional specialist, who was hired by Chillicothe Schools when the district made a commitment to prioritize a STEM education for every child. Her job is to serve as an instructional coach and encourage teachers to incorporate STEM learning into their lesson plans.

"This program gives us the opportunity to take our students outside of the classroom. They put down their pencils, pick up real learning tools, and in the process, realize there are exciting things to learn in their own backyard."

The partnership between Chillicothe Schools and Ross County's park district

grew unexpectedly when Mrs. Letts called the park director to seek permission to install trail cams on pathways so students could see what happens in the wild. That conversation, she explains, led to "grand ideas" as to how they could work together to provide environmental education on a much broader scale. Their vision: Use the under utilized county parks as outdoor classrooms for study and instruction.

Educators from both entities immediately combined their expertise to develop curriculum for a program they call *Muddy Boots and Backpacks*. Mrs. Letts received a grant from the Jennings Foundation to purchase scientific tools for the students to use during on site expeditions, and they were ready to pilot the idea last spring. Teachers volunteered to take part and the program was underway.

Since then, *Muddy Boots and Backpacks* has "snowballed." The district has agreed to transport students to and from the various parks and many community volunteers have stepped up to offer support or contribute additional expertise. For example, the Rotary Club donated \$2,000 to purchase boots for each of the 1,500 students taking part. A beekeeper has volunteered to teach first graders about bees and pollinators. And a unit on birding is being written by a local bird-watcher. Mrs. Letts reinforces that every lesson starts with the standards.

"For many of these children this is the first time they have stepped off a bus and into a park," says STEM consultant Kathy Payne, explaining that Chillicothe's students live in an urban environment and are not used to exploring outside. "Sometimes the children are just so excited to be here they are not sure how to handle it. We have to teach them how to treat the environment, that everything they see may be the home to a little critter or some type of animal."

With a semester of expeditions behind them, Mrs. Letts says that the program is evolving, and everyone is learning from the experience.

"This program has forced the teachers out of their comfort zones because place based learning is very different," she admits. "We too are learning as we go along, and we are showing that to the kids."

"We go out with a plan, but we do let the kids guide us," she continues. "If they see a flock of turkeys, that is what they are going to be talking about. So we investigate turkeys even if the lesson we planned is about moss on trees. We let them lead us. It can make for some anxious teachers sometimes, but after you see it work once, you are a believer in the way that it engages kids."

Mrs. Letts is equally thrilled about how that engagement can extend beyond the classroom. "Everything we teach the kids, they can step out and study in their own backyards," she says. "There are bugs in their backyard. You can look for birds in the backyard. You can learn about clouds in the backyard."

"This has been such a great experience for our students. I can't wait to see what happens when we have children who have gone on these expeditions 12 or 13 times. They will be so ready to really investigate how they can influence the world around them."

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From Simple to Deep Learning

Clermont Northeastern Local Schools

Elementary students in the Clermont Northeastern Local Schools are accustomed to reading text and answering questions: *When was the Gold Rush? Can you name the ancient civilizations? Who fought in the Revolutionary War?* While important facts, those answers can easily be found in a textbook or a through a quick Google search. To boost achievement educators wanted students to delve deeper into and think more critically about subjects they study.

"We recognized that our students weren't given opportunities to research and take on deep thinking projects," says Amy Bain, curriculum consultant and gifted coordinator for the small, rural district in southwestern Ohio, explaining the impetus for a project they call SPARK. The effort was introduced in 2017-18 in grades 3-8 with support from the Martha Holden Jennings Foundation. A second grant is extending the program's benefits this year into the high school.

SPARK transforms learning from "Find the one right answer" to "What does this mean to me?" explains Ms. Bain. The deeper learning process challenges students to generate individual ideas after reading text selections and to make personal connections to what the author is conveying and what they think.

Students practice this strategy through weekly mini-research projects. After reading selected texts or examining photographs, charts or graphs, they ask themselves: 'What more do I want to know?' They expand on their knowledge by acquiring new information related to the subject. Through the process, they learn how to ask good, thought-provoking questions about what they are studying—ones that require more than one word or one sentence responses.

In addition to the mini-research assignments, SPARK further challenges students in all grade levels to take on long-term, individual research projects. First, they must devise an Essential Question of their

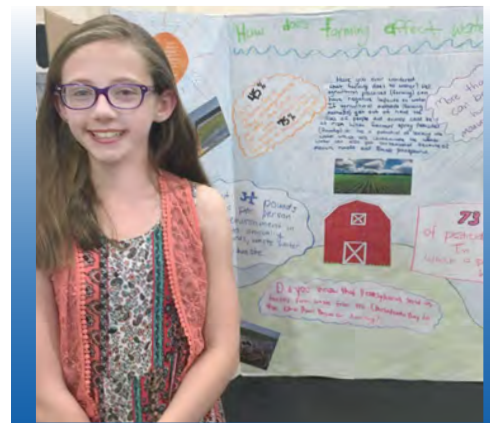
own choosing, which they investigate over the course of several weeks. Rather than answer *Can you name several ancient civilizations?* a student might research *How did ancient civilizations impact the cosmetic industry today?* Students complete a written paper and then present their research at a community-wide Academic Showcase in the spring.

"This assignment involves student choice; it is not teacher driven, and I think that's important," says Rachel Wood, 4th grade ELA teacher, who acknowledges that the deeper learning strategies she now implements in her classroom are unlike anything she has practiced in her 19 years of teaching. "The children create their own essential questions on topics of interest to them. I tell them, 'If you can find the answer on Google, then it's not a deep question.'

"This was a big deal for nine-and-ten-year-olds who had never done this before," she continues, thinking back to last year's SPARK projects. "Some of the kids were terrified, but this experience totally opened doors for them. It was great."

Intervention specialist Alexis Stahl agrees: "They had to go beyond the surface of the question—they truly had to dig way deep to *understand*, and I think that's the biggest benefit they took away from the project. It was totally uncomfortable to them, but they walked away with such a great skill."

To prepare teachers to implement SPARK, the district offered a four-day professional development institute during each of the past two summers. Ms. Bain arranged for a variety of presenters to speak to the different needs of all teachers in the district. "There were opportunities for every teacher to participate in something that was going to directly affect them and their teaching," comments Ms. Wood. The first year 73 out of 91 teachers in the district attended the voluntary sessions. Last summer's institute reached 68. Ongoing book studies



A student poses with her project results at the school's Research Expo held last spring. Her topic: *How Does Farming Affect Water?*

and discussions throughout the year keep the teachers engaged in professional development in a way they have not done before.

"I use the deep learning strategies in my classroom every day," comments Ms. Stahl, who has found ways to implement them with her special needs students. "Personally, it's changed the dynamics of my teaching. It's changed the way I ask questions in class. I'm always wondering how I can incorporate those levels of thinking into everyday content to get kids thinking more, instead of just opening up the textbook and looking for the answer."

Those behind SPARK are confident that it will improve student achievement in the long run and will be reflected in higher standardized test scores.

"We have to raise our expectations because the students will meet them," comments Curriculum Specialist Merri Johnson, who administers SPARK with Ms. Bain. "And for us that's a mind set change. SPARK has had a huge impact on both teachers and students, and I see it continuing to do that."

"It's amazing to see the difference in our students in just two years," adds Ms. Bain. "Imagine what it will be like after we have been doing this for several more."

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Embedded Art

Bucyrus High School / Ohio Arts Council

grants-to-educators



Photojournalist Gary Harwood challenges students to improve their work. Here he helps them analyze the technical aspects and composition of several photographs they shot for a recent “storytelling” assignment.

Bucyrus High School is taking student art outside for the whole community to see. In just a few months, artwork will be on display to anyone driving up to or just passing by the school entrance in a newly created Art Park. What they’ll notice first is a large mosaic mural (13 feet long by 10 to 12 feet high) depicting the silhouette of a Native American Indian chief on a horse with the sun setting in the background. The mural will be installed on an arced concrete wall that will be fixed permanently in the lawn adjacent to the school’s front drive.

The backside of the wall will protrude 15 feet and will feature an outdoor stage. Educators envision using the space for a variety of events such as musical performances or poetry readings. The park will also include engravings of student poetry and photographs the students have taken of their community etched into wood or metal sculptures. Fine details are still being worked out but the idea is to showcase student work in several mediums and to connect

it to the community. Additional ideas for ornamental objects such as benches, garden stones, and pavers are also being considered.

Developing the Whole Child

Bucyrus High School’s Art Park is the result of a deep relationship that has formed between the district and the Ohio Arts Council (OAC). Artists from OAC have been embedded in high school (and some elementary) classrooms for the past three years. The association started as part of the TeachOhioArts initiative, funded by OAC to share personal, engaging, and sustained art learning experiences with students in Ohio. This year, professional teaching artists at Bucyrus include a poet and filmmaker, a mosaic artist, and a photojournalist. The artists work with all high school art students, ninth graders in English/Language Arts, special needs students, members of the photography club, and students in the business administration & media class. Additional workshops engage all others

in the school in smaller projects as well.

“This is a way to enhance our students’ experiences,” explains Principal Mark Burke, who believes educators miss out on developing the whole child if they focus only on core academics.

“Some of our students excel in areas that are not math, science, and English,” he continues. “To not give them a platform to build on in that area does a disservice to them and to our community. So we are doing this project to give our artistic students an opportunity to grow, but also to give an opportunity to all of our students to experience the arts.”

OAC has paid the salaries for artists to work with Bucyrus students one day a week throughout the 2018-19 school year. A Grant-to-Educators from the Jennings Foundation funded art materials and supplies.

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Embedded Art *continued from p. 6*

"These artists are some of our best teachers," explains Carrie Wood, the district's gifted and literacy coordinator, who manages the project among artists and classroom teachers. "We can learn a lot from them. They bring rigor to our academics, but they also impact the affective curriculum—the social and emotional growth of our students."

A visit to the high school recently revealed how in sync the artists are with students and teachers. In Shannon Henize's language arts class, OAC's Nancy Kangas engages ninth graders in what she calls "poetry games." On this day, she demonstrates how to create blackout poems. She selects a random page of text torn from a book, quickly scans the document for impactful words that jump out at her, circles those words, and then blacks out the remaining text with a dark marker. The circled words, when strung together, create a poem.

"It's a way to take somebody else's vocabulary and make it your own," says Ms. Kangas, who has formed a close co-teaching partnership with Mrs. Henize over the past three years.

"My goal is to find some way to have students connect with language and expressiveness every day. I want students to know that they have something to say and then give them a way to say it."



Nancy Kangas, a professional poet and filmmaker, "assumes every child is a writer" and works with them to help them express their thoughts through creative writing exercises.

"And you can tell the students love it," adds Mrs. Henize. "It's very engaging; it helps in all facets of writing."

"Our students find success every time Mrs. Kangas is here," remarks Dr. Burke, explaining how he believes the experience is contributing to deeper learning. They are more comfortable writing, he adds, and that leads to trying harder and responding more deeply in class.

Telling Their Own Stories

In another classroom, photojournalist Gary Harwood is teaching photographers how to critique and edit photos that comprise a visual "storytelling" assignment. The students were challenged to shoot a series of photos to illustrate a story—people or places significant to them—and spread their prints out on desks for the class to review. By answering Mr. Harwood's thought-provoking questions, they reflect deeply on their work. They learn how to edit properly, to be critical without being mean, to be positive, and to recognize the potential in work they have done.

"Visual media is very persuasive and right now it is everywhere—in public relations, in marketing, in business," says Mr. Harwood, describing the significance of the project the students are engaged in. "Part of what's really important about storytelling, is that the students recognize they have something to say,

that they are the authors of something. We had a brainstorming session [regarding photo topics], picked the best ideas, and they began shooting. Now we are looking at which images are strong and also examining how the images work together visually to tell a story. Everything is always about 'How can it be better?'"

"Typically these experiences are reserved for kids who are gifted," says Mrs. Wood, summing up the combined opportunities the artists bring to students at Bucyrus High School. "We think anything good for gifted kids is good for all kids. We wanted to give these enriching experiences to all of our students."

"Is this project a need? No, it is not a need," explains Dr. Burke, thinking about the many layered aspects that make up the art experiences he is providing for students in Bucyrus. "It's a way to give them an experience they can't get anywhere else. I'm amazed, inspired, and prideful of the what they have done."

And he certainly can't wait to display that work for the entire community when the mural wall is completed and Art Park "opens", hopefully this spring.

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Stepping Up Confidence and Respect

Fairfax Elementary School

grants-to-educators



Kristi Glasier twirls along with her fifth grade students at Fairfax Elementary School during a session of Dancing Classrooms.



It's 9:30 on Tuesday morning and fifth graders in Kristi Glasier's class at Fairfax Elementary School in Cleveland Heights are eager to demonstrate dance moves they've been practicing for weeks. They start with a class favorite—the Tango—and proceed to the Rumba, Waltz, Foxtrot, and Swing. The ten-year-olds learned these classic steps during a 10-week, arts-in-education residency program presented by artists from north-east Ohio's Dancing Classrooms.

"We start the day through movement and the students feel a sense of elevated confidence that takes them right into their academics," explains Ms. Glasier, who received a Grant-to-Educators from the Jennings Foundation to incorporate the program into the curriculum for all fifth graders in the school.

"These children are our school leaders," she continues, "and this program gives them a special opportunity to learn something new, practice social skills, and step out of their comfort zone a bit before they move on to middle school."

Artists from Dancing Classrooms visited Fairfax twice a week this fall to work with three classes of students in the school cafeteria. Along with individual dance steps, students learned about rhythm, body posture, and style as well as the history and background of each dance and the countries from which they originate.

Dancing classrooms is not just about teaching dance, however, Ms. Glasier remarks. Rather, it uses dance as a tool to help students break down social and

cultural barriers. Each session, students work collaboratively with all classmates, regardless of differences. Dance partners rotate frequently to expand the number of peers with which each student must learn to interact in a respectful and meaningful way.

"I get my jitters out before class so I'm not silly during class," comments one student describing what he likes best about the program. He might not realize it, but in addition to releasing pent-up energy, he is also developing important social skills such as teamwork, self-confidence, tolerance, and respect.

Each dance session is also accompanied by a journal writing assignment. These creative writing exercises vary but in general they let students express their opinions about the dances and their viewpoints on etiquette. All assignments are directly connected to the content standards.

Ms. Glasier says she most enjoys the chance to interact with her students on the dance floor.

"It's such a positive way for the children to experience school. It's allowed me to bond with the children quickly and I really enjoy seeing them in a capacity outside the regular education classroom."

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Local Issue Powers Deep Learning

grants-to-educators

Seneca County High School

In north central Ohio's Seneca County, the building of large wind turbines on relatively flat farmland is controversial. A drive down the county's rural roads reveals how divided the community is. Firmly planted signs for and against wind power dot the landscape with an occasional billboard more loudly expressing a specific opinion.

High school environmental science teacher Jon Darkow describes the dispute: Wind turbines generate clean energy that can reduce climate change and provide economic gains to townships, schools, and landowners. However, some community members think they are aesthetically unappealing, can potentially reduce property values, and cause stress-related health problems.

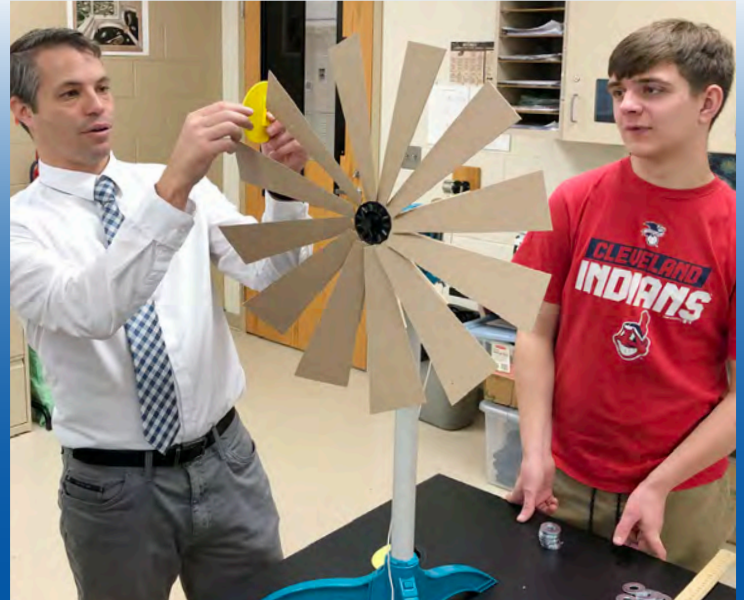
Rather than impose a viewpoint on his students, Mr. Darkow challenges them to investigate the issue's costs and benefits for themselves. At the start of the project, students were divided on their opinions.

"This is what's referred to as a Wicked Problem," explains Mr. Darkow, who teaches a half dozen students in a college credit course at Seneca High School East in Attica. "It's a problem that is incredibly complex and has competing interests that prevent resolution."

With a Grant-to-Educators from the Jennings Foundation, he challenged students to conduct controlled experiments focusing on the greenhouse effect; engineer their own wind turbines to learn how they generate electricity and optimize power output; and construct computational models to explore and communicate their findings.

"Students often learn about global issues abstractly," says Mr. Darkow, a 15-year teaching veteran who follows climate change policy closely and thought this would be an excellent opportunity

Students in Jon Darkow's class use engineering skills to build wind turbines and then reflect on how well the design works and how it can be improved.



for students to investigate an authentic environmental science problem. "This is something that is happening in their own community that has local—as well as global—implications.

"When they are manipulating a greenhouse gas experiment with plastic bottles or playing with wind turbines and their power output, they understand what those words mean because they are seeing it happen in front of them," he adds.

Through the experiments, students discovered that air with higher concentrations of carbon dioxide heats the air temperature faster than the ambient air temperature. By observing that carbon dioxide acts as a greenhouse gas, they learned why carbon emissions are an important part of the science and politics of global warming and climate change.

"The students are 100 percent engaged," he remarks. "This gives them the opportunity to work with their hands and their brains simultaneously."

As part of their investigations, the students visited a wind and solar farm in Van Wert, Ohio, to view up close wind turbines similar to those that would be constructed in Seneca County.

The experience seemed to have the greatest effect on changing students' opinions on wind power development in their community. Students generally, but not all, thought the noise was much less annoying than their preconceptions.

"Also talking with experts—engineers, policy developers, and managers of wind developers—was interesting, but did not change their opinions," says Mr. Darkow.

The project showed that energy use has consequences and the sourcing of energy and its effects are far-reaching and complex.

Mr. Darkow says he, too, learned much about the generation of electricity. "Before I thought I knew about electricity," he admits. "But energy is like a zipper. It's there. It works. But I didn't really know how it works or its implications on society.

"I also learned that whenever possible, have your students *experience* a topic and make it relevant to their community issues, which they may discuss over dinner."

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After-School Literacy Lessons



Students at Case Elementary enjoy the read aloud story, *Lucky Beans* by Becky Birtha, which is read by tutor Shayna Mell.



**Coach Sam's
Inner Circle Foundation /
Cleveland
Metropolitan Schools**

the CMSD curriculum. Changes include a shift to incorporating more non-fiction reading selections, lessons that require more critical thinking, and personalized learning plans for each student based on diagnostic data. Lessons are centered on monthly themes, such as *The Power of Knowledge; Express Yourself; and Celebrations and Customs Around the World*. Designed by a former Cleveland librarian, the new curriculum incorporates books written by minority authors that involve minority characters and themes relevant to the children's lives.

"We now have books that speak to their life experiences," says Mr. Akrish. "They see themselves in the literature, which makes it easier for them to tell their own stories in their journal writings."

Benchmark literacy assessments are conducted the first week of the program using the San Diego Quick Assessment, which gauges students' grade level reading abilities. This data is shared with reading tutors and is used to design personal learning plans. Mr. Akrish analyzes students' standardized test scores throughout the year to determine the program's impact.

"I can't speak enough to our new curriculum and the relationships we form with students," he adds, commenting on *Aiming Higher's* best features. "We focus only on second and third graders because we want to master that age group. It is the perfect age. You can still reach them and you can sense that tangible growth within them throughout the year."

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In several elementary schools throughout Cleveland, 200 second the third graders are eager to stay after school. Four days a week, they take part in *Aiming Higher*, an intervention and support program designed to build literacy skills, inner confidence, and physical well-being in young children growing up in high poverty communities. Activities vary each day, but combined they focus on developing the whole child. Some days the children read and write in journals, other days they dance, play sports, or learn which food choices are healthy and which are not. Community leaders and mentors visit from time to time to inspire the group with stories and words of encouragement and support.

Aiming Higher was developed by former Cleveland Browns Coach Sam Rutigliano and Dr. Gregory Collins, a former Browns team psychiatrist and the founder of the Cleveland Clinic's Alcohol and Drug Recovery Center. The program is currently run by Coach Sam's Inner Circle Foundation (CSICF).

"Aiming Higher is designed to build a love of learning. Because this is an after school venture, we aren't mandated to do any testing or follow a specific curriculum—we can really focus on whatever the children are interested in," says Ori Akrish.

Mr. Akrish, Executive Director, CSICF, explained details at a recent meeting at Case Elementary School, one of eight sites in the Cleveland Metropolitan School District (CMSD) that offers the program.

Grants from the Martha Holden Jennings Foundation have supported *Aiming Higher's* intensive literacy component over the past few years. These lessons take place two days a week at each site for 24 weeks during the school year. Children are divided into small groups and are taught by trained reading tutors, many who are former or current teachers. Following a "Brain Break" activity, each session involves reading aloud, reading independently, and journal writing.

"Literacy is our anchor," says Mr. Akrish, explaining that too many students served by the program are critically behind in reading and are not prepared to pass Ohio's Third Grade Reading guarantee. "Third grade is a pivotal year where children transition from 'learning to read' to 'reading to learn,'" he continues. "It's no longer just reading words on a page, now it's *Can you comprehend and answer questions about it?* That's where a lot of students in these schools fall behind."

With grant funds, CSICF developed an all-new, research-based literacy program in 2018 for *Aiming Higher* that is aligned with but does not duplicate

Connecting to Cleveland through Science and Art

Partnership with Progressive Arts Alliance

On a busy Wednesday morning, science and art are blending seamlessly in Michelle Mohnickey's fourth grade classroom at Clara E. Westropp Elementary School. Students are in various stages of completing an art project that has been several weeks in the making. Those who are finished are helping their classmates, while two teachers move from desk to desk encouraging others who still have a ways to go.

The children are creating paper tapestries by inserting rolled strips of construction paper into a plastic grid. Each one depicts a different animal that lives in a habitat in or around the Cleveland area. The assignment is the culmination of an interdisciplinary project designed by Brienne Broylex, an artist/educator from Progressive Arts Alliance (PAA). In collaboration with the classroom teacher, Ms. Broylex taught the children about habitats, adaptations, predators, and ecosystems, while at the same time she introduced them to pointillism, proportion, mixed media, and impressionism.



Clara Westropp teacher, Michelle Mohnickey helps students put the finishing touches on their paper tapestries, which depict animals they learned about in science class.

"I hope they learn about different animals that live in Cleveland but also discover how they can show that learning through the visual arts," explains Ms. Broylex, who has worked as a PAA artist/educator in schools for two years.

The tapestry assignment is just one example of interdisciplinary projects taking place in every classroom, grades K-8, at Clara Westropp this year. Principal Krystle George received a grant from the Jennings Foundation to partner with PAA artists to work with all 353 students in the school.

Part of the Cleveland Metropolitan School District, Clara Westropp is in its first year of transitioning into a PBL building with a focus on applied science, explains Ms. George. Having had previous experience with PAA artists/educators at another school, she thought this partnership with its "custom-designed residencies" could help ease teachers into that transition.

"We are working our way towards PBL, and this is a first step to show teachers what that can be in a meaningful way," says Ms. George. "As educators we often isolate subjects. PA has the ability to take math, science, social studies, ELA, and art and show how it all comes together."

Tying all school projects together is an overall theme: "Cleveland Our Great City." Students are investigating science-related topics and connecting them to the city and its economy. For example, students in grade K-2 are studying the growth cycle of plants and relating what they learn to farm products sold daily at Cleveland's West Side Market. Third and fourth graders are examining organisms that live in Cleveland's Metroparks and discovering how the parks impact the city. And those in grades five to eight are investigating how the Cuyahoga River and Lake Erie have impacted industry and economic growth in the area. Each grade level will display their learning in



an art project that will be exhibited at a Showcase in January.

"Our students don't know a lot about Cleveland," says Ms. George, explaining the reason for the focus on the city where they live. "We want them to have knowledge about their city and feel a sense of responsibility to it as well."

The program is all inclusive; it reaches every student in the school from the general education classes to multiple handicapped and autistic students as well.

"Learning is suppose to be fun," says Ms. George explaining what she hopes comes from the semester-long effort. "When you infuse learning with project based approaches students remember it long term. It's not something they learn today and let go of tomorrow.

"It's fun for the teachers too," she continues. "They are excited about the projects students are producing. Some were a bit nervous at first to have another educator come into their classroom with a lesson plan, but now they just enjoy the experiences."

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Science in the Studio Transfers to the Classroom

Greene County Community Foundation

Does air take up space?

Third graders in Sarah Nartker's class, who are learning to identify the different states of matter, were eager to find out. After watching a short video of their teacher conducting an experiment using baking soda, white vinegar, plastic bottles, and balloons, they were ready to test it themselves.

Step 1: Put on safety goggles

Step 2: Put some white vinegar in an empty bottle

Step 3: Put some baking soda in a balloon

Step 4: Attach the balloon to the top of the bottle but don't let the baking soda drop inside

Step 5: Countdown from ten...

Step 6: On one... Lift the balloon up so the baking soda dumps into the bottle with the vinegar and WATCH what happens.

As the balloons inflate the children respond with oohs and ahhs and lots of questions as to the science behind the reaction.

“The students can't help but be engaged,” says Miss Nartker, who teaches science through hands-on experiments as often as she can in her classroom in the Mad River Local Schools. “This is such a cool way to be able to show the students visually what we talked about in class.”

Miss Nartker is one of 45 southwest Ohio K-5 teachers who attended a professional development program last summer designed to show them just how fun teaching and learning science can be. Called *Science in the Studio*, the program was created by Kevin Cornell, an independent educational consultant who uses media as a tool to inspire creativity and curiosity in students and teachers alike.



Students are eager to find out what will happen when they dump baking soda into a bottle filled with vinegar. They experiment with different amounts of both substances to discover how it changes the reaction.

The charismatic, Bill Nye-like scientist, known to many as Mister C, has been using songs, videos, and media to create powerful learning experiences since his days as a sixth grade science teacher in Huber Heights more than a decade ago. He shares these lessons locally and worldwide through live science demonstrations, countless YouTube videos, and a local television show called *Full STEAM Ahead*, which airs on PBS Kids in southwest Ohio.

“We want to inspire our kids to be excited about learning,” says Mister C, whose background includes 17 years as a classroom teacher, elementary principal, K-12 curriculum specialist, and STEM director in the Dayton area. “In order to do that, we have to inspire our teachers to be creative, to be willing to try new things, to not be fearful of making mistakes, and to find powerful ways to

impact students. One way to do that is through media.”

Mister C developed *Science in the Studio* to show teachers how they can create meaningful science videos “to inspire the next generation of learners by using a medium they love.” The two-day program took place at ThinkTV studios in downtown Dayton last summer and a grant from the Jennings Foundation made it possible for 30 teachers from Beavercreek, Huber Heights, Graham Local, Kettering, and Mad River Local school districts to attend.

Science in the Studio is drastically different from most professional development programs because it focuses on “how” teachers interact with learning and not just strictly “what” they are learning, explains Heather Cornell, who partnered

continued on p. 13

Teachers became inquisitive students at the summer *Science in the Studio* workshop held at ThinkTV in Dayton.



with Mister C on the project.

Day one, she explains, was action packed and high energy. Teachers were inundated with science content. For eight hours they actively engaged in demonstrations, experiments, and engineering design challenges. They worked together in small groups to create, build, and explore.

"We tried to model what it would be like for their students to go through this process in the classroom," remarks Mrs. Cornell.

"Mister C got us all involved," adds Miss Nartker. "We walked in and there were all kinds of materials on our table. We became a room full of adults working on lots of different experiments."

With their new science content knowledge, the teachers were challenged on day two to create short videos of themselves conducting an experiment. They took an activity they learned the day before and reworked it create a "lesson starter" they could use back at school to flip the classroom. The teachers worked in small groups and each was given the experience of working in front of and behind the camera.

"They were all nervous at first," remembers Mrs. Cornell, "but they were willing to give it their all. As they got in front of the camera you could see them settle in and start to feel more confident. They realized the importance of creating a script and a storyboard and really just how difficult it is to create one minute of video."

"Media is a powerful resource and we should capitalize on its ability to reach our students all day any day," says Mister C. "We shouldn't be afraid to use it in the classroom because our students crave it."

Mrs. Cornell hopes that teachers will replicate the video-making experience with their students back at school. She adds that the equipment they used is all easily accessible—iPhones, inexpensive microphones, and green screens they can adapt to their particular needs.

"We wanted the experience to be very real and relevant to the teachers," says Mister C. "We did that by having teachers work through the content the same way their students would work through the content. That gave them the idea of what it really takes to do this. If they can do it, they know their students will be able to do it."

"The biggest hurdle is getting teachers comfortable dealing with the technology,"

he continues. "Because the kids are natural at it—they will jump on it right away."

Miss Nartker says her experience with *Science in the Studio* has transformed her teaching. But what most impressed her was Mister C's passion for this work.

"He did such a great job at the PD engaging us, and now we want to engage others," she says. "When someone has energy and passion it radiates off them. You can just feel it. I felt that after those two days, and it makes me want to put an extra drive into my classroom. It just opened my eyes as to how I can extend one little investigation into something bigger to make students start thinking more."

"The process by which we engage students and by which we teach is just as important as the content we deliver," says Mister C. "It's not what we're teaching but how we teach it that makes a difference. When teachers resonate and connect with students that is when the most impactful learning takes place."

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Jennings Fund for Teachers Fellows

For information on how to apply to be a Jennings Fund for Teachers Fellow please visit www.mhjf.org and click on **Jennings Fund for Teachers.**

Teachers spend countless hours designing unique and amazing learning experiences for their students, but how often do they do so for themselves? Last summer, 13 Ohio teachers were able to do just that. They comprise the inaugural cohort of Jennings Fund for Teachers Fellows. Their journeys were well thought out, personal, and in some instances the fulfillment of lifelong dreams. Where did they go, what did they learn, and how have their experiences transferred to their classrooms? Here are a few examples.

Melissa Barth

AP Environmental Science Teacher
Westlake High School

"This experience made me more adventurous, more independent, and a braver person than I thought I was. Sometimes life can take you down a winding path that you don't have total control over. But you can enjoy that winding path and appreciate the outcome." - Melissa Barth

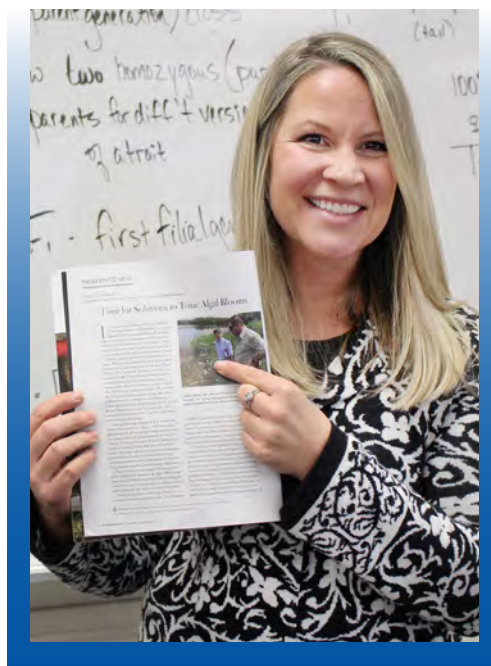
Spending a week in Yellowstone National Park has impacted how Melissa Barth teaches her environmental science students in Westlake to observe what is happening in their own backyards.

"It has been a dream of mine to visit the majority of the national parks," says Ms. Barth, who registered for a four-day field seminar at Yellowstone National Park after receiving a grant as a Jennings Fund for Teachers Fellow. Through the program, "citizen scientists" would collect baseline data on plants and animals at different altitudes within the park that would be sent to the Smithsonian for further analysis.

Ms. Barth arrived at Yellowstone two days early and "wore herself out" familiarizing herself with the environment. Without a specific plan in mind, she navigated through the park's upper and lower loops and investigated every aspect of the area's natural, ecological, and political history. The highlight of those two days was watching the sun set over the "Grand Canyon" of Yellowstone:

"I literally just felt a wash of gratitude come over me as I watched the sun set on these beautiful banded layers of rock. I thought, I am just so lucky to have this experience," she remarks.

Back at school, Ms. Barth is encouraging her students to become citizen scientists as well using the school's newly installed pollinator garden as a learning tool. She and students planted native perennials last spring after installing two bee hives in the area the year before. The purpose is to study the relationship between pollinators and the naturally occurring life cycle of the plants. Her plan is to study whether or not climate change is impacting that relationship.



Music teacher Alyssa Miller sings *Sur le Pont d'Avignon* with her kindergarten students.

Alyssa Miller

Music Teacher, Judith Resnik
Community Learning Center, Akron

"When you travel, you get a sense of awe and wonder about the world. It reminds you of things that are important for kids to learn about." - Alyssa Miller

Judith A. Resnik Community Learning Center in Akron is an International Baccalaureate candidate school. Working toward global mindedness, all students, grades K-5, take French language classes once a week. And teachers look for opportunities to embed that learning within other lessons as well.

"We want our students to be curious about the whole world and to become internationally-minded," says Alyssa Miller, who traveled for two weeks throughout France with phys ed teacher Kathleen Saxon as Fund For Teachers fellows. Their itinerary included visits to several UNESCO World Heritage sites and stops in Paris, Rennes, Tours, and Avignon.

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Teacher Fellows *continued from p. 14*

Twice they had the opportunity to stay overnight with French families experiencing *joie de vivre* firsthand. They also visited an elementary school where they taught lessons in both English and French.

Sharing their experiences back at school Ms. Miller adds, "This is a way for us to inspire our students and to get them thinking globally, starting with France because that's the language they are learning."

Mike Sustin

Environmental Science Teacher
West Geauga High School, Chesterland

"When you think of life sciences your mind travels towards Darwin and the Galapagos and what a special place that is in terms of inspiring deep thought." - Michael Sustin

Michael Sustin was trained as a chemistry teacher, yet his lifelong passion for the out-of-doors led him to create environmental science courses for students at West Geauga High School. To teach the subject effectively, he continually looks for opportunities to gain experience in the field. Sometimes

those adventures happen close to home, other times they take him as far away as Costa Rica, Alaska, or the Amazon River basin.

"I want to make the idea that science is done in the field as concrete for my students as possible," says Mr. Sustin. "Sure, there is a lot of bookwork that needs to be done, but in the field is where everything is put to the test. That's where you learn the real lessons. Through my own professional development, my own efforts, I try to live that example."

This past summer, through Fund for Teachers, Mr. Sustin was given an opportunity to visit the Galapagos Islands, a destination he terms a "pilgrimage" for science teachers. He was curious to learn what scientists there are doing to keep the islands free of invasive species. Through conversations with island researchers he gained a better understanding of how local environmental issues play out in a global context.

"When we talk in class about invasive species in Lake Erie and how they got here, I am now equipped with a personal, first hand experience, to tell the students what the Galapagos National Park and the government of Ecuador is doing to keep invasive species out of that most beautiful, historic cradle of biological field study," he remarks. "And the students are very interested because I have personal, first hand experience."

Susan Tenon

English Teacher, Harding High School,
Fairport Harbor

"As a teacher with two decades in front of the classroom, it was exciting to be a student again. The experience absolutely changed the course of my career."

- Susan Tenon

Susan Tenon's first trip outside of the United States and Canada took place just last summer. As a Jennings Fund for Teachers Fellow, she and three col-



Susan Tenon (second from l.) with colleagues in Finland

leagues from Harding High School in Fairport Harbor traveled to Finland. They visited churches, cemeteries, schools, and tourist sites in large cities and rural villages. An 18-year veteran English teacher and creative writer, Ms. Tenon says the experience was career changing: "It was all really great and it has given me a global perspective I didn't have that is needed in education today."

The Fairport group (Ms. Tenon, Paul Conn, Gerald Hites, and Russell Messer) chose the Nordic destination because it was home to many of the original settlers of their small northeast Ohio village some 200 years ago. While the school's population has diversified since then, the educators believed their ability to explore firsthand Finnish history and geography, its highly rated educational system, and its cultural traditions could translate into meaningful lessons back home.

"Part of what we learned about Finland is that their language is unique, their culture is unique, and they work very hard at keeping that uniqueness," remarks Ms. Tenon. "They do a lot of things really, really well," she continues, "such as their educational practices and immigration policies. They have stayed true to their own values and culture and yet they are not behind the times."



news & notes

Jennings Fund for Teachers Fellows

Summer Learning that Will Transform Your Classroom

They traveled to England, Scotland, Finland, and France. They taught classes, swam with sea lions, danced on bridges, attended classes, hiked mountain trails, and discovered new information about their own heritage. They experienced life-changing moments and even a little homesickness.

"These teachers had to think deeply about what they needed and then design their own staff development around that," explains the Foundation's Executive Director Daniel Keenan. A year ago they applied for a Fund for Teachers grant and were awarded the opportunity based on the strength of their applications. "It truly is awarded on the merits of the application and how well thought out it is," Dr. Keenan explains. "It's not necessarily about the project they will do back at school, but about how much the teacher has reflected on what he or she needs to become a better teacher. And it's amazing the experiences that come out of it."

This fall, Dr. Keenan invited those teachers, the first cohort of Jennings Fund for Teachers Fellows, to a luncheon in Cleveland to share their experiences with their colleagues. (Some of their experiences are summarized on pgs. 14 & 15.)

Applications are being accepted until January 31, 2019 for this summer's group. Please see www.mhjf.org and click on Jennings Fund For Teachers Fellows to begin the application process.



2018 Jennings Fund For Teachers Fellows: First row (l. to r.): Stephanie Ascherl, representative from Fund for Teachers; Julie Davidson; Kathleen Saxon; Alyssa Miller; Anne Juster, president and chair, MHJF; Russell Messer; Back row (l. to r.): Michael Sustin; Ann Hasenohrl; Melissa Barth; Susan Tenon; and Gerald Hites.

Welcoming New Evaluators

The Martha Holden Jennings Foundation welcomes two new evaluators to the Foundation family: **Nadine Grimm** and **Marilyn Troyer**.

Nadine Grimm has held several positions in the education field most recently as Coordinator of 21st Century Learning, Educational Service Center of Northeast Ohio. In this role she supports all phases of planning, implementation, and budget oversight, through final reporting of grant-funded projects from U.S. Department of Education, Ohio Department of Education, and public or private foundations. Prior to this position she served as Director of Education, Cleveland Council on World Affairs; and Grant Manager at Cleveland State University where she was also an adjunct faculty member in the Departments of English, Modern Languages, and Health Sciences. Her early career includes several posts as an editor, writer, data manager, project assistant, and investigative researcher. Ms. Grimm has been a presenter at numerous educational conferences on a variety of topics, is a member of several professional organizations, and is extensively published. She holds both a bachelor and a master of arts degree in English from Cleveland State University.

As Assistant Superintendent, New-Albany Local School District, **Marilyn Troyer** has been responsible for all aspects of district leadership related to educational programs. This includes curriculum, instruction, assessment, professional development, student achievement, innovation, and human resources. Prior to this position, which she has held since 2012, she has had a long career with the Ohio Department of Education. Her responsibilities with ODE gradually increased over 24 years culminating in a three-year position as Deputy Superintendent of Public Instruction. Dr. Troyer began her career as an elementary teacher in the Jonathan Alder Local School District. She also spent five years as an undergraduate and graduate school instructor at The Ohio State University from which she earned a bachelor's degree in elementary education, master's degree in early & middle childhood education, and a Ph. D. in education policy & leadership.

With their extensive experience in public education in Ohio, the Jennings Foundation will benefit greatly from their knowledge and skills when it comes to evaluating grants in the field. We are delighted to welcome both educators to the Foundation family.