

the challenge

Magazine for The Center for Gifted Studies

SCATS CELEBRATES 35 YEARS

Something that lasts 35 years must be special! The Summer Camp for Academically Talented Middle School Students (SCATS) is just that – special. This two-week summer camp for young people completing grades 6, 7, and 8 provides opportunities for learning at challenging levels with others who share interests. Parents of 2017 campers submitted the following benefits for their children coming to SCATS: making good friends every year, feeling “there is no judgment at SCATS,” gaining insight into the college environment, being able to hang out with peers, feeling “normal” and independent, enjoying the diversity of class offerings, being encouraged to think creatively as well as critically, and experiencing personal and emotional growth. Special indeed!



BROOK JOYNER

Attending SCATS during the summers of 7th and 8th grade was more impactful on my life than any other single experience. SCATS and The Center for Gifted Studies is more than a summer camp or summer school; it's a place that's home. It showed me a community where I could be myself, introduced me to the people who to this day are my best friends in the world, and shaped me into the person I am today. It was nothing short of amazing to return 7 years later as a counselor to give back to the next generation of campers!

– PEYTON CUZZART (SCATS 2010-11; VAMPY 2012-13; Counselor)

Letter from Julia



Dear Friends of The Center
for Gifted Studies,

Dr. Timothy Caboni became the tenth President of WKU on July 1. The Center for Gifted Studies plays an important role at WKU, and I look forward to working with Dr. Caboni this year and in the future.

The Center is very involved in gifted education at all levels – state, national, and international. It is an honor for The Center for Gifted Studies to host the state offices for the Kentucky Association for Gifted Education and the international offices of the World Council for Gifted and Talented Children. We played an important role in the 22nd Biennial World Conference that was held in Sydney, Australia, July 20-23.

August marked ten years since The Gatton Academy of Mathematics and Science in Kentucky opened. That occasion was celebrated

with class get-togethers and a day-long gathering at South Union, KY, on the day of the Solar Eclipse – August 21.

The summer of 2017 has been exceptional in many regards. The Center provided outstanding programming for children in Camp Explore and Camp Innovate, young people in SCATS and VAMPY, and educators in the National STEM Scholars Program and the Advanced Placement Summer Institute. The 35th summer for SCATS was an especially good one – full of learning and fun with idea-mates. Dates are set for all of those programs next summer, and who knows what opportunities will be added! The Center is always open to new ideas for the summer and for the academic year as well.

Any letter to Friends of The Center must include a genuine thank you. You are the ones who tell others about programming offered by The Center. You make gifts to support children and young people participating in The Center's programs – those who need financial assistance to participate. You are the best volunteers and cheerleaders for The Center. Thank you!

Sincerely,

A handwritten signature in red ink that reads "Julia Link Roberts".

Julia Link Roberts
Mahurin Professor for Gifted Studies

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Tracy Inman

DESIGNER

Marcus Dukes

WRITERS

Tyler Clark

Mary Evans

Gail Hiles

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Sarah Pedersen

Julia Roberts

Erika Solberg

PHOTOGRAPHERS

Brook Joyner

Sam Oldenburg

Allen Summers

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THE MISSION FOR THE CENTER

We are committed to encouraging excellence by providing educational opportunities and resources to three populations: gifted and talented students, educators working with gifted students, and parents of gifted students.



THE VISION FOR THE CENTER

An internationally preeminent center, The Center for Gifted Studies envisions expanding services in five areas: (1) offering educational programs for gifted children and youth, (2) providing professional development opportunities for educators, (3) enhancing communication and advocacy for gifted children, (4) conducting research and developing curriculum to remove the learning ceiling, and (5) building a testing and counseling component for gifted children and their families.



VAMPY campers who attend after finishing grades seven, eight, nine, and ten are known as Fourth-Year Fourth-Years: the first number refers to how many years they have attended VAMPY, and the second number refers to their year of camp eligibility. This year's Fourth-Year Fourth-Years had the dual experience of again enjoying all that VAMPY has to offer while also being aware they were at the end of an era that had defined their last four summers.

Why did they come all four years? Connor Sheehan (10 Super Saturdays, VAMPY 2014-17) of Bowling Green explained, "VAMPY's really the best thing on the planet, and that sounds kind of crazy, but I never experienced anything else like this in my life, and I don't think I will again. It's such an accepting community."

Melina Durham (SCATS 2013-14; VAMPY 2014-17) of London agreed: "Everyone thinks alike, and you don't have to dumb yourself down. We're all trying to make each other's experience as great as the previous year."

Four years of VAMPY means the chance to take four different courses. Malcolm Jones (VAMPY 2014-17) of Louisville made the conscious choice to take science courses this year

Fourth-Year Fourth-Years Reflect on Four VAMPY Summers





"Why did I come back for four years? The simplest answer is the experience. Every year there's always something to look forward to. You know there are traditions that are going to live on every year."

– SAM VITALE

after taking non-science classes the previous three. Lauren Simons (SCATS 2013; VAMPY 2014-17) of London took Humanities because her older sister, who was also a Fourth-Year Fourth-Year, recommended that "I wait until my fourth year so I'd be more mature when I took it and have a better understanding."

Inside and outside of class, Fourth-Year Fourth-Years felt a sense of responsibility toward younger campers. Malcolm, who was aware of "watching the new generation of campers come in," told them, "Most of the people here don't know each other, so you all are going through the same thing."

Lauren and Melina worked together on preserving traditions by doing things like teaching the song "VAMPY Ignition" to their hall. Lauren said, "The main thing we did was to make sure everyone comes back."

Of course, Fourth-Year Fourth-Years are keenly aware that they themselves won't be coming back. Sam Vitale (4 Super Saturdays; SCATS 2013-14; VAMPY 2014-17) of Bowling Green said, "I got a little teary eyed at the Hot Rods game because it hit me that it was my last fireworks show." When anticipating the last days of camp, he admitted, "I get a little upset at

Cryfest, and as this is my last one, I can only imagine it's going to get a little worse than previous years."

Connor summed up what all the Fourth-Year Fourth-Years seemed to feel: "VAMPY's been such a big part of my life for a long time, so my year has revolved around it. For it to be coming to an end is kind of weird."

HISTORY

The Summer Program for Verbally and Mathematically Precocious Youth began in 1984 simply as the Summer Program (to distinguish it from the two-week Summer Camp now known as SCATS). VAMPY was the first cooperative program with the Duke Talent Identification Program's summer opportunities. When Duke realized they needed to expand, they contacted the Kentucky Department of Education which then contacted Julia Roberts. She and then-WKU president Donald Zacharias visited Duke TIP, and the rest is history! That first summer 31 campers had a choice of three classes. In its 34th year this summer, 190 students from 12 states selected from 14 classes. To date, almost 5,800 students from across Kentucky, the United States, and the globe have spent three weeks learning about themselves, finding lifelong friends, and exploring subjects of great interest to them.

Qatar Grant Helps Arabic Students Tackle a New Language and Culture



I wanted to learn Arabic because it makes it easier to communicate with other people, especially in Bowling Green which is an international kind of place. I assist with the Bowling Green Services Fair, and they interpret for a lot of people, so Arabic will help me. — KAMRIN GREEN

A combination of culture, language, and camaraderie, the Arabic course has been expertly orchestrated by Lhouie Guerwane, an Arabic instructor at WKU, for five years. This summer, the class was supported by a grant from Qatar Foundation International (QFI). The \$33,500 grant provided scholarships to 10 students, covering all of their camp tuition. QFI is a member of the Qatar Foundation which is funded by the Qatari government. It sponsors programs that promote Arabic education and culture in the United States.

Among the scholarship recipients was Ismaila Ceesay (VAMPY 2016-17) of Berea. “I like that we went at a good pace,” he said. “We were already writing and doing basic conversation after less than a

week. I’m surprised by how much we’ve done.”

Another scholarship recipient, first-time VAMPY camper Jacob Conway of Georgetown, enjoyed using his Arabic when the class travelled to Nashville to visit the Islamic Center and eat at an Arabic restaurant. He relished “getting to absorb another language and being exposed to a different culture.”

One way the students learned about Arabic culture was by Skyping with a group of teenagers at the U.S. Embassy in Tunisia. During one session, the Tunisians explained Ramadan and Eid to the Americans. In another, the VAMPY students explained American holidays like the Fourth of July and Memorial Day to their Tunisian counterparts.

Lhouie also taught the students about Arabic culture by fielding as many questions as the students asked. Their curiosity is one of Lhouie’s favorite parts about teaching a VAMPY class: “They have all kinds of questions, and that’s how they learn — much more than going over A, B, C, D.”

On one afternoon, Lhouie answered their queries on Islam, including how the calendar for Ramadan works, what fasting is like, why minarets are built so high, and the purpose of washing feet before prayer. Lhouie, a native of Morocco, also explained why Marrakech is such a popular tourist city: “Because it’s the best — I lived there!” he joked. “Also, it’s very old and was the capital of the country many times.



It has a lot of monuments and parks and an open-air square with 24-hour entertainment.”

Kamrin Green (SCATS 2014-16; VAMPY 2017), an Arabic scholarship recipient from Bowling Green, said one thing that challenged her in the course was pronunciation: “The Arabic letters have very similar sounds, so sometimes it’s really hard to differentiate between which ‘ha’ is being used. It’s a lot different from the English.”

Lhouie addressed the language’s difficulties through a variety of strategies. When the class was working on short vowel sounds, Lhouie lead the students in a sing-along. Towards the end of the course, they conversed with native speakers from WKU’s International Center.

The atmosphere in the class was as positive for Lhouie as it is for the students: “I love VAMPY — I prepare to teach three weeks’ worth of material, but I always teach more because they want to learn.”

Catherine Aubee (VAMPY 1993-96) is a senior scientist with the United States Environmental Protection Agency in Washington, D.C. She is on assignment as acting chief in the Office of Pollution Prevention and Toxics, where she leads a team of interdisciplinary scientists and engineers who assess chemical-mediated risks to human health and the environment. She serves as steering committee chair for the Global Interest Group on Ecotoxicology of Amphibians and Reptiles within the Society of Environmental Toxicology and Chemistry. Catherine enjoys riding motorcycles and is the mom of two energetic children: Cadence (7) and Isaiah (5), who are alumni of the Smithsonian Early Enrichment Center (a model school for museum-based, emergent curricula).

Alumni Update

Duncan Hinkle (SCATS 1996-97) lives in Brooklyn, NY, with his new bride. He earned an MBA at the Yale School of Management in 2016 and is currently working for Sunlight Financial where he does business development. Sunlight enables a platform for residential solar installers to provide their customers with financing for their solar systems.

I look back on my time at SCATS as a fundamental turning point in my life. SCATS was a place I could learn to be myself. I gained so much confidence from those weeks at WKU and made friends that I am in contact with to this day. I still think about moments from those summers to this day.

John Hinkle (SCATS 2000-01) has moved throughout the country but has remained in education after earning a BA from Yale. He taught high school math in Arkansas through Teach for America before returning to medical school. After five years in Philadelphia, John is now training in ophthalmology in Miami. At each stop, he has continued to run races and explore the outdoors whenever possible.

Javier Storch (SCATS 2009) earned a BFA in Film and Television Production from the USC School of Cinematic Arts. In addition to spending his summer at SCATS, he also participated in summer film programs at UCLA, NYU, and Northwestern.

I have very fond memories of SCATS. It was my first experience at a sleep-away program, which encouraged me to try similar summer programs throughout high school. I remember taking art-based classes at SCATS. I continued in the arts after that and eventually fell in love with filmmaking. By the time I reached college, the experience of being in academic programs away from home became second nature. SCATS was a truly formative experience. It helped prepare me for the future at a very young age.

What's new with you? Share your alumni news at wku.edu/gifted/alumni.php

Camp Explore Students Embrace Change

As they measured balloons, created tissue-and-watercolors cupcakes, juggled feathers, tried out tongue twisters, and captured a cloud in a jar, the first, second, and third graders at this year's Camp Explore investigated the theme of change. First-time camper Adalyn Hensley of Lebanon, TN, for example, learned, "Physical change means you can change something, but it doesn't change all the way, and chemical change means it changes all the way and can't change back." Surya Odom (Super Saturdays 2015-17; Camp Explore 2016-17) of Bowling Green, meanwhile, discovered that "change is okay because if you mess up something, like if you drop a splat of paint, you can make a picture that's beautiful."

Each of the camp's four teachers found a different way to incorporate the theme into his or her class. Allison Bemiss's Math class easily lent itself to the theme of change. Students experimented with orientation when doing geometric puzzles, learned variables when testing to see what type of soda contains the most





carbon dioxide, and discussed how math lessons have changed from the 1800s during a class on pioneer math. With each activity, Allison made clear that the concept of change is intertwined with every area of math.

In Science, Andrea Heming's students examined natural phenomena. Activities included charting the weather each day in weather books, making diagrams of the phases of the moon out of cookies to learn about its cycle, and studying how clouds are made and then change. They also learned about the changes the wind creates by building anemometers, which measure wind speed, and then constructed their own wind-powered cars.

Nick Wilkins, the instructor of Clowning, included three main strategies for students to learn about change. First, he banned the word *can't*, explaining "It's amazing what kids *can* do when they change from a *can't* attitude to a *can* attitude." The course also encouraged students to get involved through performance. Finally, Nick helped students change from their regular selves into their clown personas.

The Language Arts class, taught by Mary Evans, incorporated change in a number of ways. One class was built around the idea of a single person changing his or her world. First, the class read *Emmanuel's Dream: The True Story of*



"It's important to incorporate problems in my math class that relate to multiple content areas. For example, one day we did a literature and social studies-themed math class using Little House on the Prairie. On another day we measured and collected data while observing a chemical reaction. In the real world, math tells a story. By giving children experiences like this, we help them learn to question and solve authentic problems that are meaningful to them."

— ALLISON BEMISS,
Camp Explore math instructor



BROOK JOYNER

Emmanuel Oforu Yeboah. Born in Ghana without a shinbone in his right leg, Yeboah rode a bike across his country to raise awareness about people with disabilities. After discussing the book, the students wrote and drew pictures about powerful messages they wanted to share with the world in order to change it.

For teacher Kaylynne Jones, each day of Art class brought a new focus for the theme of change. For example, one day the students studied how plants change as they grow. They also looked at the life cycle of a sunflower, studied Van Gogh's "Sunflowers," and read a story about a girl who grows pea plants. The lesson culminated with making an origami house to incorporate into their weeklong project of a landscape collage.

This summer, 39 students from Kentucky and Tennessee explored change. Next year, campers will have an opportunity to explore another interdisciplinary theme on June 4-8.



BROOK JOYNER



SAM OLDENBURG

Imagination Takes Over at Camp Innovate

"If you tie your balloon, will you be able to power your car more than once? Think about it – I'm not going to tell you the answer. Solve your problem. Use your resources. Then you're thinking outside of the box!"

– STEPHANIE HELTON speaking to her class

As they solved problems, formed theories, and looked at the world in a new way, 59 third, fourth, and fifth graders became innovators at this year's Camp Innovate, held July 10-14. Students took courses in art, science, clowning, math, and language arts, with the theme of innovation running through every class.

Beginning and experienced students learned the art of clowning from Nick Wilkins. Nick pointed out that they were innovating by turning peacock feathers into juggling instruments, balancing them on their palms and the back of their hands. As they grew confident, the students innovated further, perching the feathers on their noses and feet.

Math teacher Allison Bemiss culminated a week of learning about averages, slopes, and functions with a Barbie bungee-ing project. Working in small teams, students measured how far the dolls fell when attached to various numbers of rubber bands. As she and her partner

acquired their data, Kate Hans (Super Saturdays 2016, Camp Explore 2016, and Camp Innovate 2017) of Glasgow predicted what the slope created by their paired coordinates would look like when they drew their graph: "I think it will be a positive slope because both numbers keep going up."

In science, Stephanie Helton provided her students with a makerspace where they worked through the engineering process, which starts with "define the problem" and ends with "evaluate your solution." One assignment asked students to design solutions for getting up on time; their prototypes, built from art supplies,

included a scented alarm clock and a treadmill bed. They also were challenged to create wind-powered cars using only a water bottle, a wooden skewer, bottle caps, a balloon, masking tape, and three straws.

Students read a variety of books with teacher Mary Evans in language arts, including one about recycling innovator Isatou Ceesay. All week, as students made jump ropes and aprons out of plastic bags and wrote stories describing their world of the future, they could read a quotation from Ceesay written on the board: "I didn't call out the problems — I called out the solutions."

In art, each day teacher Andee Rudloff presented her students with a new way to think creatively. For a project called Changing the Subject, students chose a piece of fruit and drew a picture of it. They then ate some of it and drew another picture of what was left. Another activity asked the students to combine a noun, verb, and adjective and create art inspired by their word choice. The images formed out of construction paper, glue, scissors, and markers included "a cactus convertible goes fast" and "a green tiger flies." At the end of the week, students made a class mural. They painted things like rockets, ducks, and geometric shapes in bright colors on separate rectangles of paper. Andee then arranged the pieces together on the classroom wall to create a stunning piece of collaborative art.

Save the date for Camp Innovate next year: July 9-13, 2018.

HISTORY

Camp Explore and Camp Innovate first started as the Summer Camp in 2012, an enrichment experience designed for students in grades 1, 2, and 3. In 2013, grade 4 was added. In 2015, the camps split into Camp Explore for first, second, and third graders and Camp Innovate for fourth and fifth graders. In 2017, third graders could attend both Camp Explore and Camp Innovate, depending on their interests and schedules.

Academically talented seventh graders from throughout Kentucky were honored by the Duke Talent Identification Program (Duke TIP) May 19 at Western Kentucky University. The Center for Gifted Studies has hosted the Kentucky Recognition Ceremony since 1982, so this marks the 35th year for this event on the WKU campus.

Duke TIP's 7th Grade Talent Search identifies students across a 16-state region who have scored at the 95th percentile or higher on a grade-level achievement test as a 6th grader. After initially qualifying to participate in the Talent Identification Program, students are invited to take

above-level standardized tests such as the SAT or ACT as seventh graders. Taking these college entrance exams provides valuable test-taking experience and helps students and their schools learn more about their academic abilities in order to better address their needs.

Nearly 54,000 students took the above grade-level college entrance exams. In Kentucky, 2,818 students were tested, and 1,021 qualified for the state recognition ceremony. Nearly 250 of those students attended the ceremony at WKU. Riley Ground (Fall Super Saturdays 2010; Summer Camp 2012-14) shared her feelings about the recognition: "I was shocked

and surprised with my ACT score! The ceremony was a great way to recognize all of us. It gave me confidence and motivation to want to improve my score, especially since I was so close to getting to visit Duke."

Ron Skillern, 2017 Kentucky Teacher of the Year and VAMPY teacher, keynoted. He told the students that their participation in TIP would open up many more opportunities for them. "The fact that you're sitting in these seats right now is a tremendous accomplishment," Ron told the students. "It's an accomplishment that will springboard you into some really fantastic things."

Duke Talent Identification Program Honors Kentucky Seventh Graders



SAM OLDENBURG

FRIENDS OF THE CENTER

Shalane Balfour
Knoxville, TN

Dan & Lane Camp
Bradford, TN

*In Honor of Whitney Camp Picard
(SCATS 1999-2000; VAMPY 2001-02)
& J. D. Camp (SCATS 2002-03;
VAMPY 2004-06)*

Dann & Kathi Cann
Leitchfield, KY

Richard & Beth Chapman
Nashville, TN

Tyler Clark (Instructor; Counselor)
Bowling Green, KY

Susan Cook
Bowling Green, KY

Emerson Electric Company
Matching Gift: Wake Norris

Claus Ernst & Uta Ziegler
Bowling Green, KY

Marjorie Farris
Richmond, VA

Ruthene Glass
Bowling Green, KY

William & Nancy Gravely
Glasgow, KY

John & Sarah Grise
Bowling Green, KY

Randy & Julie Hansbrough
Bowling Green, KY

Judith Hasselbring & Janet King
Coloma, MI
Riley Jane Lawrence Scholarship

Karen Herbert
Florence, SC
Riley Jane Lawrence Scholarship

Charles & Jane Howard
Louisville, KY
Riley Jane Lawrence Scholarship

Jim & Anna Jo Johnson
Bowling Green, KY

David & Laura Harper Lee
Bowling Green, KY

Holly Lewis (Travel Paris,
Italy, London)
Arlington, VA

Stewart & Amanda Lich
Brownsville, KY

Reid & Kelly MacLauchlin
Danville, KY

Charles & Bobbi Mann
Calhoun, KY
Matching Gift: Boardwalk Pipeline

Jim & Diane Matherly
Bay City, MI

Scott Nass (VAMPY 1988-91;
Counselor)
Palm Springs, CA
Riley Jane Lawrence Scholarship

David & Shalane Navorska
Fort Campbell, KY

Chivas Owle
Orlando, FL
Riley Jane Lawrence Scholarship

Jonathan Plucker
Glastonbury, CT
In Honor of Dr. Julia Roberts

Robert Pratt (SCATS 1990;
VAMPY 1991-92)
Lexington, KY

Sonja Quale
Crestwood, KY
Riley Jane Lawrence Scholarship

Dick & Julia Roberts
Bowling Green, KY

Christopher & Xiaoli Cai Rutz
Saint Joseph, MI

James Snider
Franklin, KY

Bruce & Beverly Stott
Maryville, TN

Toyota Motor Manufacturing
Georgetown, KY
*Matching Gift: Nila Wells in
memory of Catherine Wiseman*

Catherine Ward
Bowling Green, KY

Jon Warren (Counselor;
Head Counselor)
Bowling Green, KY

Joe & Judy Wismann
Talent, OR

Other speakers included Kentucky State Representative Jody Richards, Dean of WKU's College of Education and Behavioral Sciences Sam Evans, Kentucky Department of Education Gifted Education Program Consultant Kathie Anderson, Executive Director of The Center for Gifted Studies Julia Roberts, and Duke TIP Education Research Specialist Rick Courtright. Rick praised the seventh graders and said, "We hope this honor will encourage you to advance even further as you look to the future."

The Kentucky Education Savings Plan Trust and the Teachers Insurance Annuity Association administered by the Kentucky Higher Education Assistance Authority sponsored the reception.



PHOTOS BY SAM OLDENBURG

Health equity strategist Hannah Drake uses poetry to improve the billboards of the Smoketown neighborhood of Louisville. She explained to the audience at this year's IdeaFestival Bowling Green (IFBG), "I wanted this community to see themselves. When you see yourself in the world, you know that anything is possible."



More than 650 high school and middle school students from 22 schools and 13 counties had the opportunity to explore possibilities at the fourth annual IFBG on March 15 at Western Kentucky University's Downing Student Union. With its biggest group of participants ever, this year's festival featured two panels of speakers and more than a dozen hands-on, minds-on activities that embodied this year's theme of "Make Nice with Your Ideas."

The first speaker panel focused on Creative Technologies. The audience was encouraged by music video director Max Moore to pursue their passions: "By following your dreams, you can foster creativity, facilitate learning, and gain confidence that can move you closer to fulfillment and thus closer to success." Next, Luigi Carlin, a project manager for technology company Southern Made, stressed that the tech world needs creative people to help combat complacency: "We need the perspective of artists and thinkers who can pull from their own experiences to disrupt the industry they work for." Finally, Megan Tan, the creator of the podcast Millennial, related how she decided to give up a full-time job by asking herself, "Was I going to stay in this place that was really comfortable and that I had worked really hard to get to, or was



IDEAFESTIVAL BOWLING GREEN PARTICIPANTS MAKE NICE WITH THEIR IDEAS



I going to take a leap and commit myself to making this passion project?" She chose her podcast, and success followed.

The second speaker panel focused on Social Entrepreneurship. Alex Kimura, who co-founded Sharing America's Marrow when her sister was diagnosed with leukemia, stressed that "if you shoot for something big you can still make an impact even if you don't reach that goal." The final speaker, Kenan Mujkanovic, started the Young Visionaries Foundation when he was sixteen. He urged the audience, "You have ideas that will benefit the

people around you. Don't let anyone say you can't do it."

In the afternoon, participants applied their hands and minds to activities designed to show them how far a good idea can take them. In one corner, students used vinyl cutters in this year's expanded makerspace, while in another they wrote poetry. They also tried out virtual reality goggles, created with 3-D printing pens, and practiced their idea-pitching skills. Other stations gave festival-goers the chance to learn how to code, play brain-teasing games, come up with new ideas for their communities, and write postcards to juvenile cancer patients.

"At my pitch practice station, students picked out two slips of paper from a bucket and put the words on them together to create a product to pitch to me. One of my favorites was 'donut shoes' — the student said you could go running and, if you got hungry, stop for a donut. Another pitched 'lawnmower bees' — bees that would mow your lawn, then fly away — this student was very convincing, and, by the end, I thought he actually had the product for me to buy."

— SARAH NUSE, CEO of Tippi Toes Dance

Two activities focused on microscopes: at the Microscope Madness station, students peered through microscopes at their own cheek cells. At another table, they used strips of vinyl, hole punchers, rubber bands, and small lenses to turn their own smartphones into microscopes.

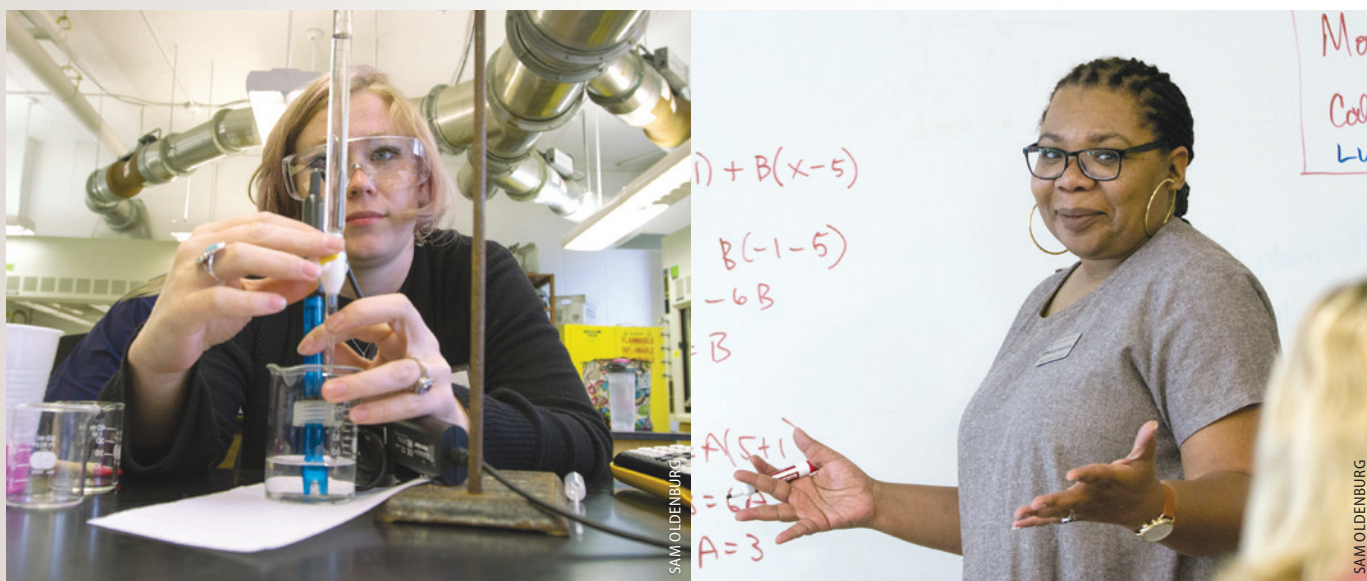
Artist Andee Rudloff participated in her fourth IdeaFestival Bowling Green, returning with a mural inspired by her residency at Greenwood High School in Bowling Green. Students there created

icons in response to the prompt, “What will transportation, communication, and technology look like in 2020?” Rudloff then incorporated those icons into outlines which festival participants painted in throughout the day. Later in the afternoon, writer Oni Woods read a poem inspired by the mural in an impromptu reading. From idea to icon to paint to poem, this process epitomized what IdeaFestival Bowling Green is all about.

For videos, photos, and social media posts from this year’s festival and information about next year’s festival on February 15, 2018, go to wku.edu/gifted/ideafestivalbg.

HISTORY Spearheaded by The Center for Gifted Studies, IdeaFestival Bowling Green began in 2014 as part of Innovate Kentucky. This initiative was supported by a \$500,000 challenge grant by the James Graham Brown Foundation, the first of its kind ever awarded to a public university. Looking for a way to establish an annual speaker series at Western Kentucky University, Innovate Kentucky worked with IdeaFestival® to create a branch of that program in Bowling Green. For its first two years, IdeaFestival Bowling Green aimed to provide the community as a whole with a day of innovative speakers. In 2016, the festival shifted its target audience to middle and high school students throughout the region and added a hands-on, minds-on activity component.





It was back to class for nearly 400 Advanced Placement (AP) teachers who participated in a one-week institute at WKU June 26-30. Since 1984, the Advanced Placement Summer Institute has assisted teachers in better understanding the demands of AP classrooms and high-ability students. This summer, 398 teachers from 70 Kentucky school districts and 17 states sharpened their pencils, took notes, and learned how to build successful Advanced Placement programs in their schools.

Teachers were trained in 20 content areas and in 27 different workshops ranging from Biology to World History. Separate workshops were offered for beginning AP teachers and for teachers with experience teaching AP courses. Institute consultants are experienced AP teachers and readers who have demonstrated their ability to help other teachers prepare to teach AP classes. Many of the consultants are exam readers, table leaders, and even writers of texts.

Participants focused on curriculum challenges, shared and discussed teaching strategies, and reviewed the contributions of research to content, teaching, and labs. North Hardin High School teacher Tina Gray said, "One of the things that I liked about my AP U.S. History seminar was working with other experienced high school U.S. History teachers. Getting their perspective on how they handle issues in the classroom was very infor-

WKU Hosts 34th Annual Advanced Placement Summer Institute

mative. We worked together to create a document file of classroom activities that we all can access for the upcoming school year. We also compared various instructional materials that potentially could be used in our classrooms."

Developing skilled and knowledgeable AP teachers is the key to student success on the AP exam. Research from the College Board (Laitusis, 2012; Mattern, Marini, & Shaw, 2013) found that schools with larger numbers of teachers participating in Advanced Placement Professional Development were more likely to have higher levels of overall average AP performance the following year. Studies (Adelman, 1999; Martin et al., 2010) also confirm that students who take AP exams are more likely to finish college in four years and are more likely to graduate from college.

The dates for the 35th AP Summer Institute are June 25-29, 2018, and the application will be available in mid-January on The Center's website.

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BROOK JOYNER

Teaching gifted students is not about simply presenting them with high-level material or instructing at a fast pace; a classroom of gifted students contains a variety of levels of readiness, interests, and personalities that require teachers with flexibility, creativity, and confidence. Fortunately, the Summer Camp for Academically Talented Middle School Students (SCATS) helps train educators in the skills and outlook essential for working with this population.

SCATS began in 1983 as a way to offer a practicum for graduate students in WKU's gifted endorsement program. This year, 18 of the instructors at the June 11-23 camp were working towards either an endorsement or a master's degree in gifted education and talent development. For one of those teachers, Stephanie Gahafer, the camp was a time to push herself and to revel in her students' enthusiasm for learning.

Stephanie, who just completed her third year of teaching at Plano Elementary School, taught Government and Econom-

SCATS Teachers Learn Needs, Talents of Gifted Students



BROOK JOYNER

ics. After studying different types of government and economies, students created their own countries — complete with a constitution, budget, capital city map, and

flag — and competed against each other for control of the world.

The biggest challenge Stephanie faced involved planning: “When I made my lesson plans, I didn’t know my students. After I read their preassessments, I had to re-examine my plans because they knew more than I thought they would. I went with their interests and passions and designed my instruction with them in mind.”

By the end of the first week, as students started creating their countries, it was clear that she had tapped into those interests. Some teams kept the name of

the geographic region assigned to them, like Denmark and Croatia, while others chose their own names such as Terrasen and The Democratic Republic of Veena. Some teams focused their city plans on the basics like schools, a capitol building, and a mall, while one team modeled its city after the layout of Brasília.

Students also had to make other, more significant, decisions. As she planned her country, Kareena Pansuria (Fall Super Saturdays 2011-12; Camp Innovate 2016; SCATS 2017) from Bowling Green

learned that when people aren't happy, they revolt, so people's happiness affects how the country is doing."

Overall, Stephanie's goals for her SCATS class were very different from what they would be in her regular classroom: "If we didn't have time to complete an activity, it was okay as long as they were actively engaged in minds-on learning. I gave them time to discuss and learn with each other. My SCATS journey has taught me that flexibility is key — the best lessons are ones that aren't scripted."

"One of my students didn't get to finish the story she wrote on the first day, and, after I read it, I tracked her down and told her to take the story back and finish it because I had to know what happened next."

— SUMMER BROWNING RICH,
SCATS teacher for The Craft of Storytelling

explained, "I know I want to be a constitutional monarchy, and I think I'm going to spend lots of money on military."

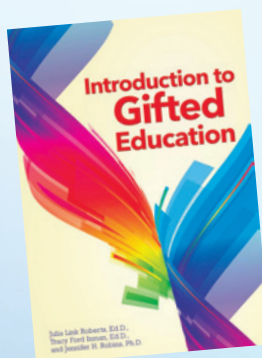
During the second week, their countries ready, the students started to compete. Stephanie presented them with various situations designed to target weaknesses their countries might have. She explained to the class, "It's how you respond to those weaknesses that matters." She assessed their responses as good or bad; too many bad responses resulted in a fine, and less money in a country's coffers made it more vulnerable to attacks from the outside.

The first situation Stephanie presented said, "Citizens above a 40% tax rate are outraged and threaten to withhold funds. How do you respond?"

After each country responded, the class discussed their decisions and debated the benefits of a tiered versus a flat tax system. Stephanie reminded them, "You have to think about how your decisions affect people on a day-to-day basis. We've

HISTORY SCATS, first known simply as the Summer Camp, began in 1983 to see if it could be a viable component of the teacher endorsement for gifted education; it was! The endorsement in gifted education culminates in a practicum wherein teachers implement a curriculum they have created according to best practice. In 2015, WKU began offering the MAE in gifted education and talent development either leading to certification or taking a research focus, with SCATS again providing a practicum opportunity. That first summer in 1983, sixty students attended four of eight classes. Since then, more than 5,800 sixth, seventh, and eight graders have taken challenging, engaging classes for two weeks in the summer, with about half of the courses taught each year by practicum students. This summer 152 campers from 9 states participated in SCATS. Next year's dates are June 10-22, 2018. We hope to see you there!

Introduction to Gifted Education: An Excellent New Resource



Julia Roberts and Tracy Inman teamed with Jenny Robins of William & Mary to create *Introduction to Gifted Education*, a definitive textbook designed for courses that introduce teachers to gifted education, whether that is graduate school or certification classes or continuing development programs for teachers. The book is inclusive in nature, addressing varied approaches to each topic while relying on no single theory or construct. It provides a comprehensive look at the topics, including an overview of big ideas, its

history, and a thorough discussion to help those new to the field gain a better understanding of gifted students and strategies to address their needs. A rich online companion piece supports the text, providing practical strategies and activities for the instructor. Go to prufrock.com to purchase a copy.



Middle School Teachers Learn the Art of Math and Science

The second cohort of the National STEM Scholar Program gathered at WKU in June. The program's mission is to inspire the creativity and passion of middle school science teachers. This year's Scholars represented eight states. (See sidebar.) During the opening dinner, Scholars worked together to solve hypothesis cubes. These cubes, used throughout the week, have five visible faces that give clues Scholars would use to determine what is on the hidden face. The activity not only helped scholars get to know one another, but it also modeled effective ways to get students thinking about science.

The one-week session during the summer is taught by WKU faculty members Rico Tyler and Kerrie McDaniel. Rico leads the physical science portion of the program with Kerrie facilitating the life science. All National STEM Scholars receive a grant they can use to design their own challenge project to implement in their classrooms. During the week, Rico and Kerrie used the professional development experience to model how to create and implement challenge projects.

The Scholars created their own iPad microscopes, completed an escape room challenge, and worked with genetic code and Ozobots, among other activities. National STEM Scholar Angela Gospodarek noted: "I was very impressed with the generosity of the program and the organization of the activities. I had lessons and materials to share with my class as soon as I got back to my own school."

In addition to working with Rico and Kerrie, the Scholars enjoyed two guest speakers. Dr. Paula Grisanti, CEO



2017 National STEM Scholars


Suzanne Banas, FL
Kiki Contreras, WA

Katie Donlin, MN
Angela Gospodarek, ME
Jay Hollis, KY
John Lui, WI

Emily McKernan, NY
Valerie Pumala, WI
Donna Shartzter, KY
Dana Young, NJ

of the National Stem Cell Foundation, shared updates in the field of regenerative medicine. Dr. Julie Schell, Director of TEXAS OnRamps and Strategic Initiatives at The University of Texas at Austin's Office of Strategy and Policy, also joined the Scholars for a day. During this time, Julie discussed deep learning and provided time for the Scholars to reflect how they can facilitate deep learning through their challenge projects and other activities in their classroom.

The Scholars will meet again at the National Science Teachers Association annual conference in March. The third cohort of National STEM Scholars will be selected for 2018, and applications will be available this fall.

HISTORY  A gift from the National Stem Cell Foundation established a partnership with The Center for Gifted Studies at WKU and The Gatton Academy of Mathematics and Science. The National STEM Scholar Program has had two cohorts of scholars.

"The National STEM Scholar Program directly influences middle school science teachers who will interact with students and colleagues for many years to come. Building excitement and opportunity insight for children in this age group has been shown to significantly impact ongoing STEM interest and engagement." – DR. PAULA GRISANTI, CEO, National Stem Cell Foundation



Another important day was spent seeing Orvieto's massive Duomo, one of the best examples of the Romanesque-Gothic architecture in Italy. We also journeyed through Assisi, visiting the Basilica of St. Francis.

Each day in Florence was another adventure into the Italian Renaissance. The Uffizi galleries contain some of the most renowned paintings in the world, with works of Botticelli and Michelangelo; it is home of two of the only fifteen known paintings by Leonardo da Vinci! The spectacular art continued that day with a visit to the Museum Academia to view Michelangelo's *David*.



THE CENTER

BY SARAH PEDERSEN (SCATS 2014-16; VAMPY 2015-17; Travel to France and Italy)

Italy! Home of mouthwatering gelato, the cradle of Renaissance art and architecture, literary traditions, and, of course, *la dolce vita*. Italy has drawn people in search of culture and adventure for generations, and twenty-one travelers can certify that sentiment after this trip.

Our travels began with a trip to Pompeii, allowing us to see into Roman life of the 1st century through the incredibly well-preserved remains of the town. In Rome, we visited the Church of St. Peter in Chains, home of Michelangelo's brilliant statue of Moses, along with the Pantheon, Piazza Navona, Spanish Steps, and the Trevi Fountain (which also had delectable gelato!). We learned more of the rich history of the Roman Catholic Church by traveling to the Basilica of St. Paul Outside the Wall as well as spending a day at the Vatican. We saw the extensive collections of the Vatican Museums, including the Sistine Chapel. Michelangelo's frescoes along the ceiling were breathtaking, and we all marveled at his rendition of the Last Judgement along the altar.

The intricate architecture of the Florence Duomo and Baptistry definitely stood out, with Bernini's magnificent cupola leaving an impression on anyone who sees it. Some in the group climbed to the top of dome for a spectacular view of the city. At the Church of Santa Maria Novella, we saw the groundbreaking first-ever known painting to use linear perspective, *The Holy Trinity* by Masaccio. We also visited the Church of Santa Maria Croce in Florence, which holds the tombs of Michelangelo, Galileo, Machiavelli, and Ghiberti! The Bargello, home of Donatello's *David*, and the Medici Chapels were also on the itinerary for all who love art. Of course, visitors cannot miss Pisa! We saw the famous Leaning Tower, each leaving with a new experience in the art of trick photography.

Only a fraction of the experiences we had are described here, but the memories that were made over this trip will stay with us forever. The days we spent in Italy were ones to cherish. Until we go next time, ciao!

The next travel experience will be to Greece September 29 to October 8.





TRAVELS TO ITALY



ALL PHOTOS BY ALLEN SUMMERS UNLESS OTHERWISE NOTED

What Are Excellence Gaps?

Many communities have populations of students who severely underperform relative to other demographic groups and fail to reveal their own potential. These achievement gaps have been a focus in American K-12 education efforts for many years and are probably best exemplified in the federal No Child Left Behind Act which guided education from 2001–2015. These gaps, although important to address, focus on gaps at basic levels of academic proficiency. But such gaps also exist among the highest levels of achievement, a problem labeled *excellence gaps*.

Excellence gaps are differences in scores at the advanced level among subgroups of students.

Excellence gaps, although an often unrecognized problem, continue to grow in schools and districts across the Commonwealth of Kentucky and the nation. Recent studies provide evidence the gaps are due – at least in part – to debilitating contextual factors, such as poverty, negative peer pressure, and bias and discrimination.

Why Should Educators Be Concerned About Them?

First, closing excellence gaps is a matter of educational equity and social justice. If a Latina student from a lower socioeconomic background or a Black/African American third grader has mathematical talent, declaring victory when she begins to perform at grade level is premature – grade level performance should be viewed as a mile marker on a longer journey, not the destination. Helping that student reach the limits of her potential will change that child's life, in addition to the lives of her family and people in her community. And the entire culture of her school may change, as more students perform at advanced levels and a culture of achievement takes root in each classroom.

Second, the elimination of excellence gaps is an economic and cultural imperative. As the United States' K-12 student population continues to become more



Excellence Gaps in Kentucky



diverse, our talent continues to emerge primarily from higher income White and Asian American students. For example, only 53% of public school students are White or Asian American, a number expected to decrease to 51% by 2025. And more than 50% of students qualify for lunch assistance via the National School Lunch Program, a number that continues to increase each year. For long-term economic and cultural vibrancy, we need talent to emerge from all of our student subgroups.

What Do Kentucky's Excellence Gaps Look Like?

Like all other states, Kentucky's excellence gaps are large and growing. For example, during the 2015 administration of the National Assessment of Educational Progress (NAEP), 14% of Kentucky Grade 4 students who do not qualify for lunch assistance scored at the advanced level, compared to 3% who qualify. Similar excellence gaps (by family income, race, and gender) are found for all NAEP results, regardless of content or grade level being tested. The first figure on page 25 provides an example of Kentucky's excellence gaps. (Although significantly higher than other subgroups, 25% of Asian American students score advanced.)

Similar results in Kentucky's own achievement measure, K-PREP, stress the critical need to address the excellence gap in our Commonwealth. See the second figure on page 25.

What Research-supported Interventions Help Address Excellence Gaps?

Fortunately, the existence and growth of excellence gaps are fixable problems. Educators need to take several bold steps to shrink excellence gaps – and to do so by raising the achievement levels of under-achieving groups, not by allowing already high-performing groups to slip.

According to Plucker and Peters (2016), research-supported strategies that may help reduce excellence gaps include the following.

- **Enhancing opportunities:** Opportunities for advanced learning should be made available to all students in all communities. Educators should be aware that emerging research suggests that communicating about the opportunities may not be enough to get low-income students involved; persuasive, persistent communication with the students' caregivers may be necessary to convince them that the opportunity is worth pursuing.
- **Universal screening:** When identifying talented students, every student in the targeted grade level should be
- screened. Nominations should come after formal screening to help identify students any tests may have missed.
- **Local norms:** Students should be identified using local norms rather than national norms. In some high poverty schools, using national norms may result in the identification of few or no high-ability students, yet talent exists in every zip code. Using local norms helps find these students and sends the implicit message that every school in every neighborhood has talented children.
- **Ability grouping:** Flexible ability grouping is associated with both increasing advanced achievement and the closing of excellence gaps.
- **Frontloading:** Efforts should be made to ensure that students are prepared to be successful in new programs. For example, encouraging low-income students to take Advanced Placement (AP) courses will only be successful if the students have been exposed to rigorous coursework in advance of the AP opportunity.

- **Teacher training:** Preservice and inservice educators – principals, teachers, counselors – should have training on the needs of high ability students and strategies for promoting high achievement among all students.

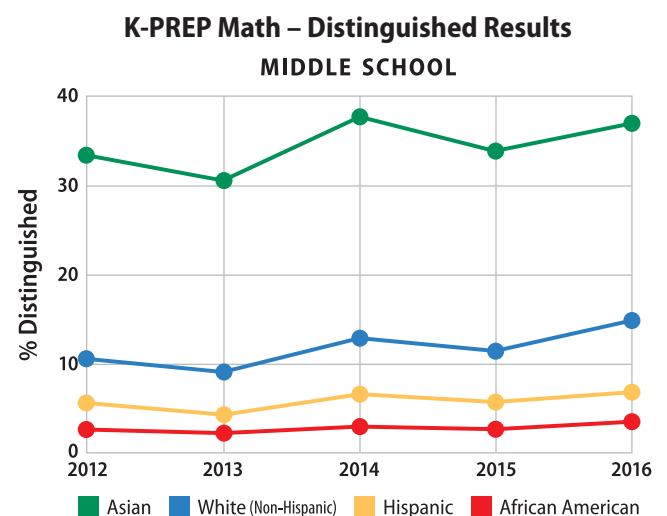
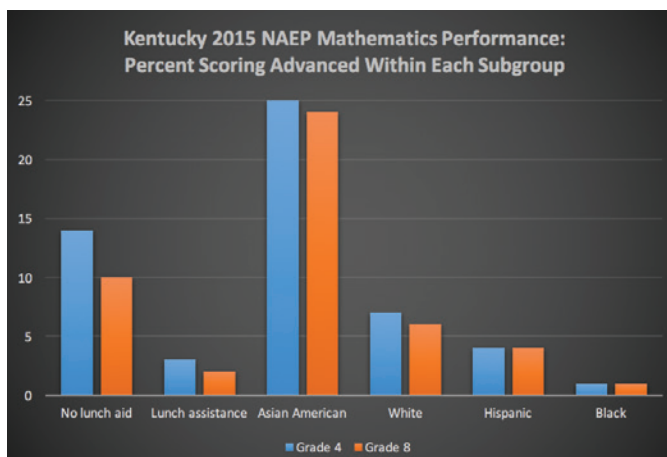
The Excellence Gap

Before any policy is passed, ask policy makers and educators the two questions:

- **How will this policy impact advanced students?**
- **How will this policy help more students perform at advanced levels?**

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Wedge Lecture Series Focuses on STEM

Dr. Bronwyn MacFarlane, Professor of Gifted Education at the University of Arkansas at Little Rock, delivered the 2017 Wedge Visiting Scholar Presentation. On the evening of April 11, the discussion focused on STEM programs in schools and suggestions for how to create such programs. She encouraged educators and administrators to plan carefully and ensure the objectives of the program are well defined. Ensuring that the STEM program's mission and objectives are well defined maintains focus. To help with the planning, Bronwyn provided six key questions. (See sidebar.)

The next day, Bronwyn provided a workshop environment for participants to actively think about writing curriculum. When writing curriculum, she suggested beginning with a foundational model (e.g., Autonomous Learner Model, Schoolwide Enrichment Model, Integrated Curriculum Model). She also noted the importance of differentiating the curriculum to create appropriate learning opportunities for all students in the classroom.

Dr. Janet Tassell and Mr. Rico Tyler encouraged students in their Elementary Math Methods and Elementary Science Methods classes to attend the presentation. Kate Miller, one of the students attending, noted: "Very rarely do [gifted and talented] students receive the accommodations that would allow them to excel, which in my opinion is a disservice to those students. What stood out to me about Dr. MacFarlane's



Program Essentials to Determine

Who are the learners?
Who are the teachers?
What is the purpose?
When is the program available?
Where is the program?
Why will students participate and return?

presentation was her statement that these students should not simply be given extra work. She stated that instruction and activities can be differentiated through acceleration, complexity, depth, challenge, and/or creativity."

Regarding the presentation, Janet said: "Dr. MacFarlane was such an invaluable presenter for my elementary pre-service teachers. The opportunity for my students to learn from her years of experience in the field of gifted education was critical. The Wedge Series is an essential element of professional development enhancement for the well-rounded education at WKU."

Planning is underway for the 2018 Wedge Visiting Scholar Presentation.

HISTORY

A gift from
the Wedge

family makes possible the Wedge Visiting Scholar program that began in 2006. This series is designed to facilitate important discussions between parents, educators, administrators, and other stakeholders about helping students achieve at their fullest potential. Individuals who have come as the Visiting Scholar have included Carol Tomlinson, Shelagh Gallagher, Jonathan Plucker, Donald Treffinger, Paul Slocum, Barbara Kerr, and Bronwyn MacFarlane. This endowment is for the College of Education and Behavioral Sciences at WKU.

"The Wedge Visiting Scholar program provides an outstanding opportunity for teacher candidates, P-12 educators, and university faculty members to gain information on the latest research findings in various fields in the profession of education. Opportunities to apply those findings in workshop experiences are led by the Wedge Visiting Scholars. The Scholars' knowledge and passion in their chosen field are motivating for individuals engaged in ensuring all students achieve at their fullest potential." – SAM EVANS, Dean, College of Education and Behavioral Sciences at WKU

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DR. JULIA ROBERTS
Executive Director

The Center for Gifted Studies
Western Kentucky University
1906 College Heights Blvd. #71031
Bowling Green, KY 42101-1031

PHONE: 270.745.6323
FAX: 270.745.6279
EMAIL: gifted@wku.edu

MRS. AMANDA COATES LICH
Senior Director of Principal Gifts

Office of Philanthropy
Western Kentucky University
1906 College Heights Boulevard, #11005
Bowling Green, KY 42101-1005

PHONE: 270.745.2340
EMAIL: amanda.lich@wku.edu

CONTACT US

 wku.edu/gifted

 gifted@wku.edu

 270.745.6323

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The Center for Gifted Studies
Western Kentucky University
1906 College Heights Boulevard #71031
Bowling Green, KY 42101-1031
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SAM OLDENBURG

CALENDAR

**TAG Mini-Conference:
Underrepresented Populations**
October 13, 2017

Fall Super Saturdays
October 28, November 4, 11, & 18, 2017

Winter Super Saturdays
February 3, 10, 17, & 24, 2018

IdeaFestival Bowling Green
February 15, 2018

Spring Break in England
March 30 – April 8, 2018

National STEM Scholar Program
June 3-9, 2018

Camp Explore
June 4-8, 2018

SCATS
June 10-22, 2018

VAMPY
June 24 – July 14, 2018

**Advanced Placement
Summer Institute**
June 25-29, 2018

Camp Innovate
July 9-13, 2018