

KANSAS CITY

iNVENTiON CONVENTiON

Presented by **LINDA HALL LIBRARY**

Supporting STEM in the Greater Kansas City Community



**2023
REPORT**



I'm consistently impressed by Kansas City's commitment to enhancing STEM prospects for students through notable initiatives like the Kansas City Invention Convention. This event fosters creativity and critical thinking, allowing students to explore innovative solutions to everyday problems. It's not merely a competition; it's a learning journey, and a fertile ground where the innovators of tomorrow can cultivate their skills. This program is more than a local endeavor; it's a community's commitment to education. It exemplifies the mutual collaboration between educators, local enterprises, and other community partners, all uniting to provide a sustainable learning environment for students.



It is not just the present—it's an investment in the future, a catalyst ensuring the ongoing growth of inventive thinking and innovation.

In supporting the Invention Convention curriculum, we are endorsing a brighter future, enabling educators to mold the next generation of innovators. Our gratitude extends to all community partners who contribute to making this competition a reality. I look forward to participating in the 2024 program and seeing this initiative grow.



Dr. Eric Dorfman

President & CEO
Linda Hall Library

KANSAS CITY
**iNVENTiON
CONVENTiON**



Dear Sponsors and Community Partners,

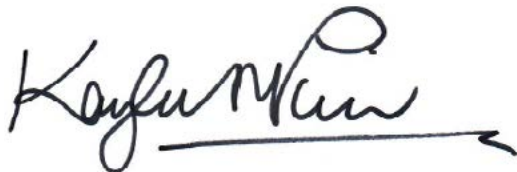
Thank you for generously supporting the Kansas City Invention Convention (KCIC). Here is a snapshot of how impactful KCIC was on the Greater Kansas City community.

- Over **2,984** students used KCIC's STEMIE curriculum
- Over **260** inventors competed in KCIC
- Over **\$32,000** in prizes and scholarships were awarded to student inventors

Your generosity helps develop the next generation of leaders, entrepreneurs, and inventors who are imagining new solutions to everyday challenges. I hope to continue our partnership in support of the Kansas City STEM ecosystem and education.

Thank you for making this opportunity possible for our region's young innovators!

With gratitude,



KAYLEE PEILE

Director of Development, Linda Hall Library

Being able to foster, support, and encourage STEM and innovation in our communities is essential, and what Linda Hall Library is doing here is one of those important cornerstone elements.

– John Jungk, PhD, Chief Technology Officer
Title Sponsor KCNSC managed by Honeywell FM&T





“
One thing we love about invention education as a model, is it's project-based, it's real world, it's interdisciplinary, and all those things create an intrinsic motivation in the students. They are taking ownership of a project and imagining themselves being a part of a wider market of ideas and inventions.

– Matt Reeves, Public Programs Manager,
Linda Hall Library

”

Matt Reeves, PhD, joined the Public Programming team at the Library in 2022. After earning his doctorate in history and public humanities from UMKC, Matt served as an education and outreach librarian for special collections at the Kansas City Public Library. His passion for education is an asset to the team and to the Kansas City Invention Convention.

GET TO KNOW MATT REEVES



Role at Linda Hall Library: Public Programs Manager for the Kansas City Invention Convention

Claim to fame: I won a Halloween contest at my local McDonald's in the third grade dressed as a Civil War-era Union soldier. So, yes, I've been a nerd my whole life.

Best part about earning a PhD: There's no limit to how silly you can be with a graduate degree. When people call me a ding dong, I get to remind them, "That's Dr. Ding Dong, thank you very much!"

Favorite inventor: Whoever invented the alarm that rings when you forget to turn off your car's headlights. Without them, I would have drained my battery more times than I can count. Thanks, automotive innovators!

Words to live by: "Always acknowledge a fault frankly. This will throw those in authority off their guard and give you opportunities to commit more." - Mark Twain

WHAT IS KCIC

The Kansas City Invention Convention (KCIC) is a STEMIE (STEM + Invention + Entrepreneurship) competition and outreach program presented by the Linda Hall Library that supports **17** counties and **31** school districts throughout the Kansas City metro area. KCIC teaches problem-solving and creativity to students in grades 5-12, while providing educators with a project-based curriculum to inspire the innovators of tomorrow.

Students competing at KCIC are required to document their invention process in an inventor log, develop a prototype, design a display board, and make a four-minute pitch explaining the story of their invention to a group of professional judges who will evaluate the students using an Invention Convention Worldwide approved scoring rubric.

KANSAS CITY
iNVENTION CONVENTION
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SCORING RUBRIC

INVENTION PROCESS (40 POINTS)

Did the inventor(s) describe how they identified a problem to solve and researched the current solutions for their problem?	1	2	3	4	5	6	7	8	9	10
Did the inventor(s) develop solution ideas through a brainstorming process?	1	2	3	4	5	6	7	8	9	10
Did the inventor(s) explain how they came to their final design and intend the invention to work?	1	2	3	4	5	6	7	8	9	10
Did the inventor(s) explain setbacks, improvements, and the problem-solving they encountered?	1	2	3	4	5	6	7	8	9	10

SUBTOTAL _____

INVENTION IMPACT (25 POINTS)

Did the inventor(s) complete market research to determine their invention's potential demand or value for its users?	1	2	3	4	5										
Did the inventor(s) address the potential "greater good" impact their invention may have on their community or the planet? (Environmental, societal, etc.)	1	2	3	4	5										
Is their invention an original idea (unique or creative in its own right) OR is it a distinguishable innovation on an existing product?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

SUBTOTAL _____

INVENTOR COMMUNICATION (35 POINTS)

Logbook: Does the logbook document the entire invention journey and not just report what they did after the fact?	1	2	3	4	5	6	7	8	9	10					
Display Board: Does the display board have strong visual appeal? Does it clearly communicate what their invention is and how they developed it?	1	2	3	4	5										
Prototype: Does the prototype demonstrate what the invention will look like and how they intend it to work? Note: the prototype does not need to be fully functional or to-scale. Prototype scores should not depend on the quality of the materials used.	1	2	3	4	5										
Pitch: During their pitch, did the inventor(s) explain the problem they identified, how their invention solves it, and the process they went through to develop it?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

SUBTOTAL _____

Judge Name (please print)

TOTAL SCORE _____

Judge Signature

TIMELINE

September:

Educator registration opens

October:

December: KCIC leaders visit schools to introduce KCIC to students and educators

January:

Inventor registration opens

January – March:

Educators utilize InventEd curriculum in classes

March:

KCIC leaders visit schools to prepare students for competition day

April:

Competition day and awards ceremony

June:

Invention Convention U.S. Nationals

PARTICIPATION

The 2023 Kansas City Invention Convention reached record-breaking numbers. Throughout the school year, nearly **1,000** students across **17** counties in the Kansas City metro accessed free online invention convention curriculum.

233
STUDENTS

116
INVENTIONS



“
Having a heavy emphasis on STEM education has been really beneficial to me and my learning. I've been able to explore other things besides just reading a book. I get to get my hands dirty, explore, invent, and create. It's been so beneficial in teaching me how to work in teams and collaborate.
”

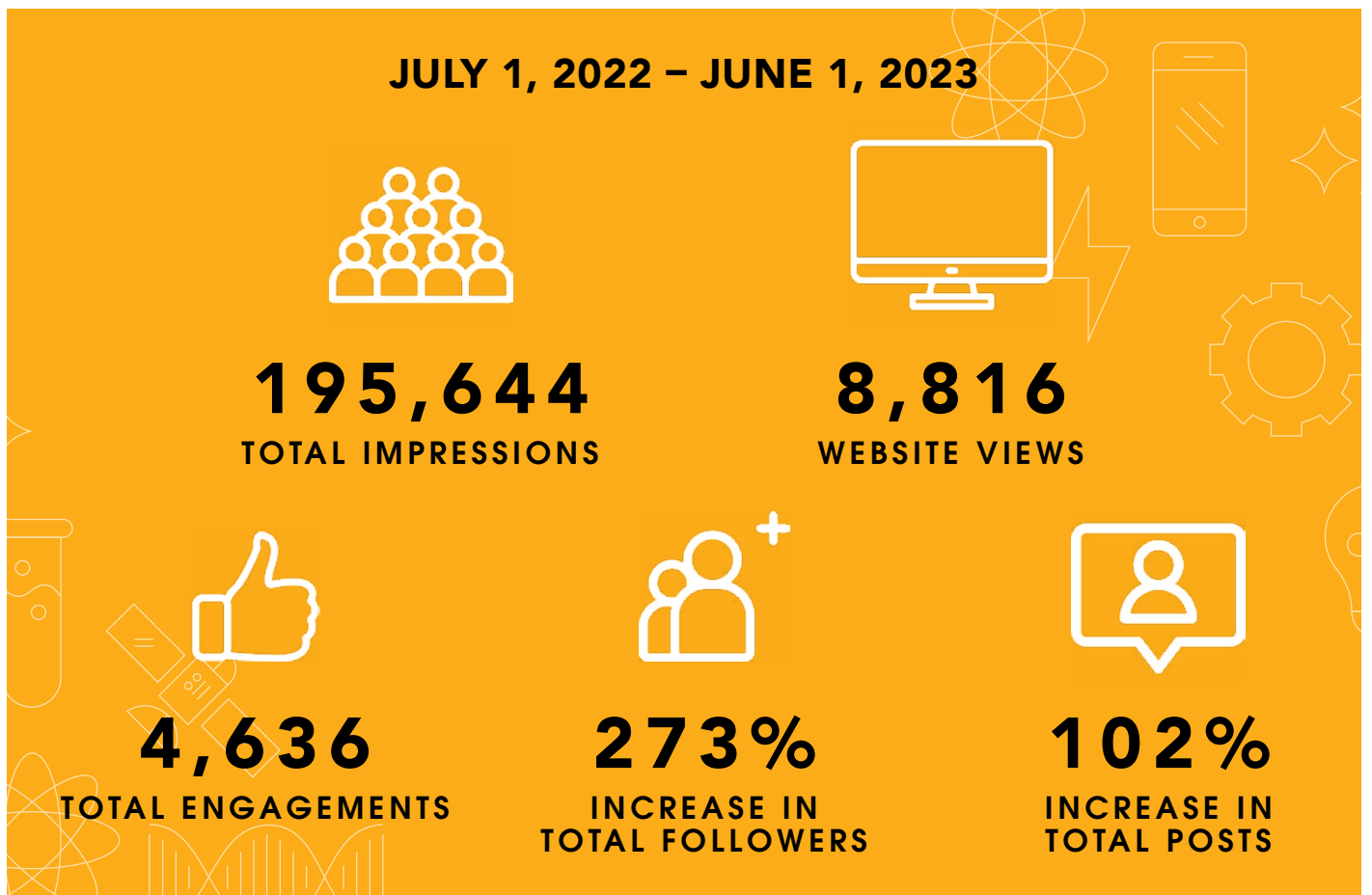
– Megan A, Student



KCIC BY THE NUMBERS



DIGITAL REACH



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KCInvent



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Kansas City
Invention Convention

GRAB A BAG AND START INVENTING

KCIC leaders headed to the classroom this Spring to get students and educators excited about the program. Over **175** students received hands-on experience with an inventor exercise designed to spark creativity and problem-solving skills. With our “Invention in a bag” exercise, students created innovative solutions to the challenge of water access. Their creativity and engaging thought process was inspiring. Both students and educators were able to experience the innovation process in real-time.



“

STEM is so important for all the kid's futures. It surrounds us in our everyday lives.

– Mimi Leuszler, Technology Educator
Mize Elementary School

”

PREPARING TO COMPETE

Leading up to the competition day, KCIC leaders headed back out to the classrooms to evaluate the progress of the young inventors and offer an opportunity for peer-reviewed, mock presentations. During these visits, the scoring rubric was reviewed and feedback was provided as students pitched their inventions to their peers. These mock presentations gave students a chance to evaluate their presentation process, adjust their pitch, and develop methods to make their invention story stand out. Educators were given a preview of expectations during the judging circles at the competition, while KCIC leaders gained valuable feedback that helped shape the judges' training.

“

It helps bring to light how many issues are really happening in the scene that you're participating in and how much you can make a difference.

– Brianna M, Student

”



KCIC WINNERS

11TH & 12TH GRADES

1st Place

Grayson Moyer
Invention: Aspen Coolers
School: Blue Valley Center for Advanced Professional Studies

2nd Place

Charlie Olm-Shipman
Invention: Snowpack
School: Blue Valley Center for Advanced Professional Studies

3rd Place

John Beemer
Invention: Trailer Buddy
School: Blue Valley Center for Advanced Professional Studies

7TH & 8TH GRADES

1st Place

Gabriel Brooks and Anna Tiedt
Invention: Recycle Pro
School: St. Paul's Episcopal Day School

2nd Place

Aubrey Massoth
Invention: Brain Bop
School: John Paul II Catholic School

3rd Place

Lucille Herrold and Kendall Young
Invention: Fresh Fridge
School: John Paul II Catholic School

9TH & 10TH GRADES

1st Place

Gabriella Campbell, Isabel Glover, Charlotte Hamilton
Invention: Spoiler Alert
School: St. Teresa's Academy

2nd Place

Hudson Caldwell and Ella Janssen
Invention: Kitty Keep Away
School: St. Teresa's Academy

3rd Place

Eve Szylleyko
Invention: SPEWE – Super Plastic Elimination from Water Environments
School: St. Teresa's Academy

5TH & 6TH GRADES

1st Place

Will Korus
Invention: CatGuard
School: Shawnee Heights Elementary School

2nd Place

Will Hennenfent
Invention: Mobile Meds
School: Homeschool

3rd Place

Ikenna Imokhome
Invention: Carbon Cadet 2000
School: Northland Innovation Center



CONVENTION'S CHOICE: Sophie Gouttierre, Taylor Lewellen, Harper McGee, Molly Kate Trenkle



Lucille Herrold and Kendall Young, Fresh Fridge

KCIC WINNERS



Grayson Moyer, Aspen Coolers | Charlie Olm-Shipman, Snowpack | John Beemer, Trailer Buddy



Mimi Leuszler, KCIC Educator Appreciation Winner



Will Hennenfent, Mobile Meds



MOST PATENTABLE: Isabel Glover, Charlotte Hamilton, Gabriella Campbell



EARLY INNOVATOR: Gabriel Brooks and Anna Tiedt

SPECIAL CATEGORIES

FUTURE SHAPER – PRESENTED BY KCNSC

Charlie Olm-Shipman
Invention: Snowpack
School: Blue Valley Center for Advanced Professional Studies

MOST PATENTABLE – PRESENTED BY KCNSC

Isabel Glover, Charlotte Hamilton, Gabriella Campbell
Invention: Spoiler Alert
School: St. Teresa's Academy

CONVENTION'S CHOICE

Sophie Gouttierre, Taylor Lewellen, Harper McGee, Molly Kate Trenkle
Invention: The Dropper Stopper
School: St. Paul's Episcopal Day School

BEST IN SHOW

Grayson Moyer
Invention: Aspen Coolers
School: Blue Valley Center for Advanced Professional Studies

EARLY INNOVATOR – PRESENTED BY KCNSC

Gabriel Brooks and Anna Tiedt
Invention: Recycle Pro
School: St. Paul's Episcopal Day School

Will Korus
Invention: CatGuard
School: Shawnee Heights Elementary School

INVENTION CONVENTION NATIONALS

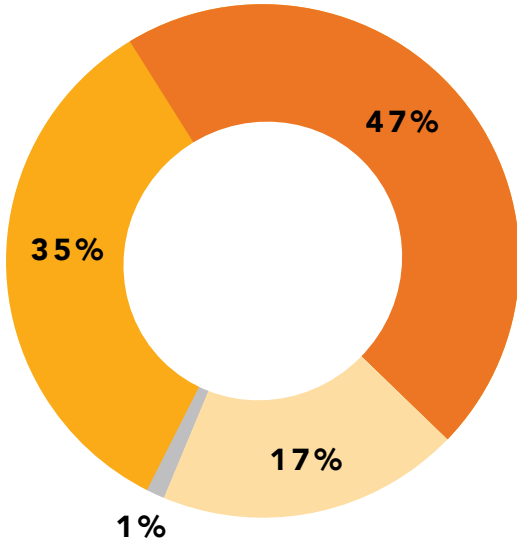
In June 2023, **seven** students traveled to The Henry Ford Museum in Dearborn, Michigan to represent Kansas City at the Raytheon Technologies Invention Convention U.S. Nationals. At Nationals, students were given the opportunity to present their inventions to a panel of expert judges, engage with students from across the country, and participate in immersive educational experiences.



WOULD YOU LIKE TO SPONSOR A STUDENT'S JOURNEY TO NATIONALS?

Contact Kaylee Peile at peilek@lindahall.org

KCIC FINANCIALS



- Annual Program and scholarships – 47%
- Supplies and Awards – 35%
- Invention Convention National Competition – 17%
- Affiliate Membership – 1%



\$33,600
IN CASH PRIZES & AWARDS

SPONSORSHIP OPPORTUNITIES

Sponsors of KCIC receive brand recognition in print and social channels, judging opportunities on competition day, and a chance to amplify the region's STEM ecosystem. Sponsorships help make KCIC accessible to more of our region's youth. Opportunities include competition day transportation, awards, educator professional development, afterschool outreach, cash prizes, and travel to U.S. Nationals. Visit KCInvent.org/sponsorship for sponsorship pricing.

“

I think it's so important that these kids have an opportunity, an outlet, and an organization that believes in them, that gives them these opportunities they might not otherwise have. If your organization can donate or get involved in some way, this is such a cool program and it's great to be so involved with the kids.

– Kate Ross, Marketing Director, Centric

”



INTERESTED IN CUSTOMIZED SPONSORSHIP OPPORTUNITIES?

Contact Kaylee Peile at peilek@lindahall.org

KCIC TITLE SPONSOR

Thank you KCNSC! KCIC would not be possible without the generous support of our sponsors and community partners, especially title sponsor, **Kansas City National Security Campus managed by Honeywell FM&T**. Thank you for your continued support of STEM initiatives in our community!



“
STEM, STEM education, and STEM communities are really the engine that powers our ability to be successful, so making sure we have a space and are actively participating in the development of STEM education in our communities is really essential for us to be successful now and in the future.

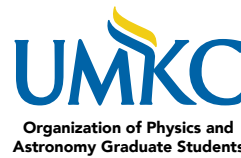
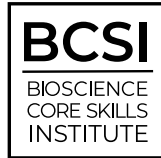
– John Jungk, PhD, Chief Technology Officer,
KCNSC managed by Honeywell FM&T

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KCIC INNOVATION ALLEY

Partnering with local organizations that are passionate about STEM is key to uplifting STEM initiatives in the community. Thank you to all the community partners who participated in KCIC 2023!

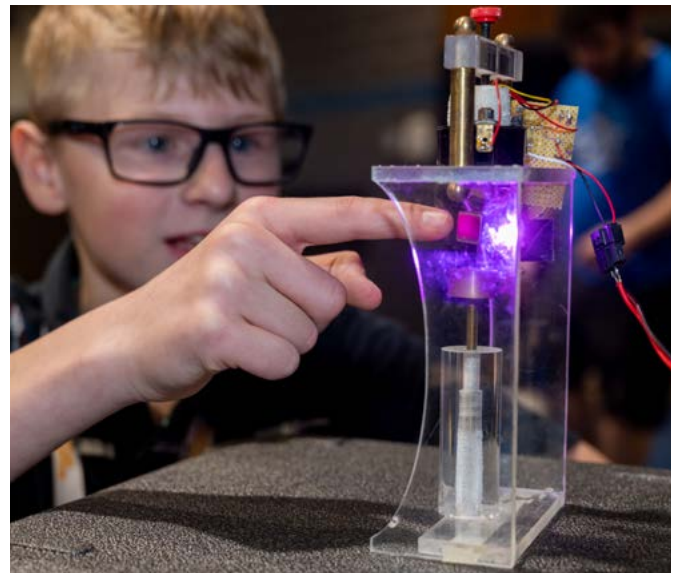


“

The latest research shows that we need to get students in front of STEM opportunities as early as possible, so I think it's really wonderful that KCIC is doing that.

– Allison K. Nelson, KC STEM Alliance

”



KCIC EDUCATORS

Behind every one of our great student inventors is a passionate and encouraging educator. Thank you to all the educators that utilize the Invention Convention Worldwide curriculum and help inspire the innovators of tomorrow!

Emily Beecham	Lawrence High School
Andrea Bennett	Maranatha Christian Academy
Shari Brundige	St. Paul's Episcopal Day School
Sidney Doty	Berryton Elementary School
Mike Farmer	Blue Valley C.A.P.S.
Stephanie Graham	Hogan Prep Academy High School
Derek Hutchinson	S.A.G.E.
Kelly Hyer	Prairie Trail Elementary
Anna Kallenbach	Northland KC Co-op
Peggy Kelly	John Paul II
Christopher Kramer	Frontier Stem High School
Rhonda Lefferd	Tecumseh South Elementary/ Shawnee Heights Elementary
Mimi Leuszler	Mize Elementary
Imani Malaika-Mehta	SOTV Creators Club
Mary Montag	St. Teresa's Academy
Sarah Ramos	EPiC Elementary
Audra Ruckel	S.A.G.E.
Chrissy Russell	USD 232 Voyagers
Lauren Stevens	L.E.A.P. Microschool
Melissa Torres	S.A.G.E.
Kelly Van Maren	St. Paul's Episcopal Day School
Abby Werth	Homeschool



“With problem-solving, it will give students an opportunity to figure out how to come up with solutions to problems we don't even know exist. And that's what this kind of education does.”

– Mary Montag, High School Science Educator, St. Teresa's Academy

KCIC JUDGES

Thank you to all the judges that dedicated their time and provided valuable feedback to the students at KCIC! We greatly appreciate your support of the local STEM community and the inspiration you brought to the young inventors.

Bill Sturm, AirFixture, LLC

Jesse Waugh, AirFixture, LLC

Caleb Stith, AirFixture, LLC

Abby Heider, AirFixture, LLC

Amanda McNeal, Balance Innovations

Daniel Folk, BioKansas

Carol Krstulic, Blue Cross & Blue Shield of Kansas City

Jeremy Knoll, BNIM

Josue Najera, BRR

Kate Ross, Centric

Linda Johnson, Community Volunteer

Lorraine Hoffower, Community Volunteer

Jeff Hunter, Community Volunteer

Kyle Dumler, Community Volunteer

Sara Fahrung, Community Volunteer

Matt Smith, Dimensional Innovations

Beth Witsken, Hollis + Miller Architects

Erik Timpson, KCNSC managed by Honeywell FM&T

John Jungk, KCNSC managed by Honeywell FM&T

Michael Herzberg, KCNSC managed by Honeywell FM&T

Nicholas Putnam, KCNSC managed by Honeywell FM&T

Simeon Bricker, KCNSC managed by Honeywell FM&T

Kyle Shipps, KCNSC managed by Honeywell FM&T

Jillian Drake, KCNSC managed by Honeywell FM&T

Philip Abel, KCNSC managed by Honeywell FM&T

Drew Pfyl, KCNSC managed by Honeywell FM&T

Erin Cryderman, KCNSC managed by Honeywell FM&T

Kevin McGinnis, Keystone Community Corporation



KCIC JUDGES

“

It's really inspiring to see the youth that are involved in inventing the future and really learning the skills that will be required for them to lead all of us into the future.

– Kevin McGinnis, CEO
Keystone Community Corp

”

JP Ascher, Linda Hall Library, Fellow

Jess Rezac, MBB Agency

David Chitwood, MBB Agency

Dan Guinn, MBB Agency

David Reid, Multistudio

Mark Johnson, Olsson

John Golden, Olsson

Dan Chitwood, Orazem & Scalora Engineering

Annika Pollard, Polsinelli

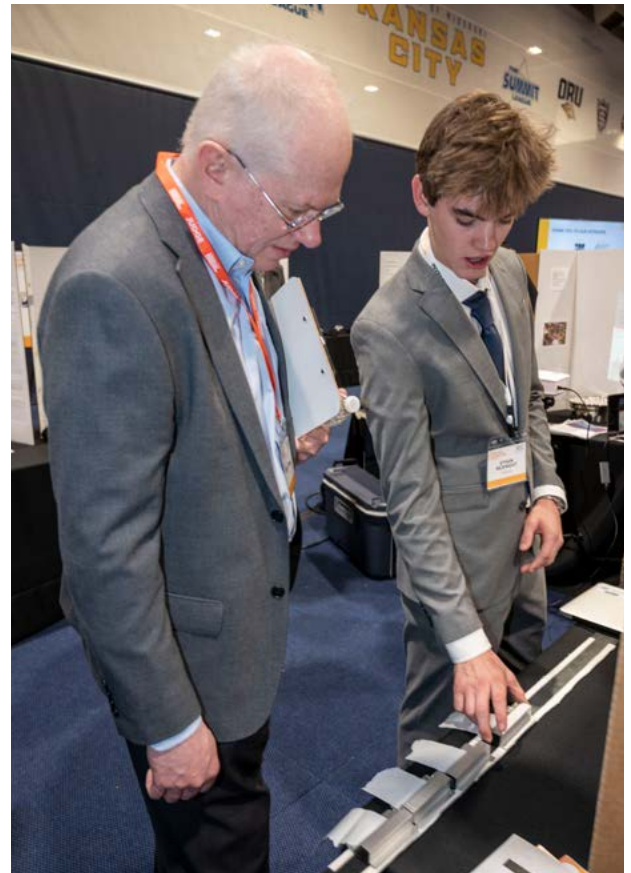
Lindsey Santos, SnapIT Solutions

Roger O'Dell, SnapIT Solutions

Eva McDorman, The Builders' Association |
Kansas City Chapter, AGC

Dan Toughey, T-Serve Foundation

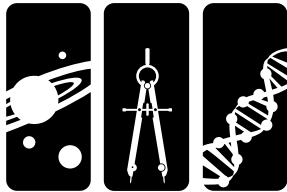
Mark Cordes, UMB



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