



Tulsa Regional
STEM Alliance

2024

IMPACT REPORT





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“Education is the passport to the future, for tomorrow belongs to those who prepare for it today.” – Malcom X

Since its inception, the small community organization that became Tulsa Regional STEM Alliance has championed a vision of service that amplifies impact: one outstanding teacher can inspire hundreds—if not thousands—of young minds. Thanks to the steadfast support of community members like you, TRSA continues to create transformative opportunities for educators, empowering them to inspire and nurture the next generation.

Through resource sharing, networking, and professional development, TRSA has remained committed to supporting educators wherever they work. In 2024, we achieved remarkable milestones:

- **Exponential Growth Math Professional Development**—A record number of math teachers engaged in this program, further enhancing their skills and confidence.
- **SENSEsational Science**—Our flagship science training was reimaged as a multi-year program, creatively and purposefully building confidence and capability in science educators.
- **STEM Shoppe Expansion**—Training opportunities grew significantly, equipping more educators to use our ever-expanding STEM resource lending library with confidence.
- **\$100,000 in Educator & Partner Grants**—In 2024 alone, we supported 37 organizations across Oklahoma as they increased access to excellent STEM curriculum, resources, and professional development for their educators.

If I've learned anything about what it means to be an Alliance, it's that our greatest asset is our educators. Without their talent, passion, and perseverance, the chances of providing youth with outstanding STEM experiences would dwindle. That's why we pour our energy into supporting them and collaborate with partners who do the same.

As you explore the incredible work our ecosystem accomplished with youth this year, remember the teachers behind every success. They dedicate their evenings, weekends, and summers to learning and growing so they can be their very best for their students. We are proud to stand alongside them, supporting their journey.

At TRSA, our guiding values are captured in the statement: *Together, We Create Possibility*. This applies not only to our staff but also to the entire ecosystem of partners, donors, volunteers, and educators who strive, sweat, and persist—knowing that our collective efforts will make a difference. Together, we ensure that youth who might not otherwise experience excellent STEM opportunities are engaged, equipped, and empowered for a STEM-enabled future.

From the bottom of my heart, thank you. To our partners, staff, board members, donors, and volunteers: your belief in our mission and your unwavering dedication make all this possible. Together, we create possibility.



Levi Patrick
Executive Director



Impact at a Glance

Our Mission

Cultivate impactful partnerships and learning pathways that inspire and prepare all youth for a STEM-enabled future.

Our Vision

We envision a thriving, collaborative, and inclusive community powered by a STEM-capable ecosystem.

All Stacked Up

In 2024, Tulsa Regional STEM Alliance continued to make significant strides in inspiring and empowering Oklahomans through STEM education. Through efforts with over 260 collaborators and the dedicated support of more than 450 volunteers, we successfully:

Empowered 843 educators with valuable professional development, equipping them with the tools and resources to create engaging and effective STEM learning.

Facilitated over 2,782 hours of impactful mentoring across our Mentoring program, which includes Me and My Math Mentor, Space Week, Women in STEM, and our Career Awareness Event.

Awarded \$107,950 in grants to schools and nonprofits across the state, expanding access to high-quality STEM programs and ensuring equitable opportunities for all youth.

Culminating in over 191,000 engaging STEM experiences for Oklahoma youth.

We are grateful for the collective impact we made in 2024 with the support of our generous funders and partners.

Continue reading to learn how we're inspiring the next generation of explorers and innovators.

191,659
Youth experiences

\$107,950
Grants awarded



2,782
Hours of mentoring



843
Educators experiences

39

Strategic goals completed



142

Unique events



451
Volunteers



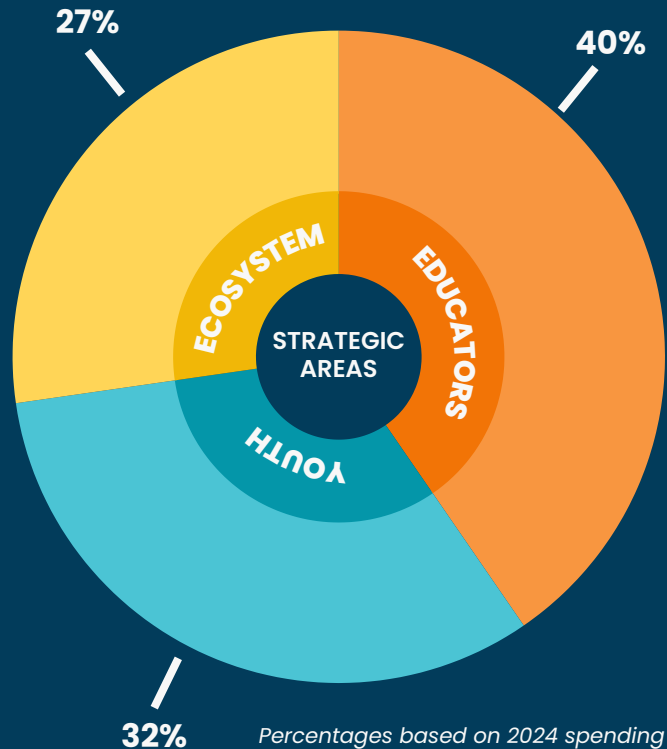
260+
Community collaborators

A Breakdown of Impact:

How We're Supporting STEM Education

We're committed to inspiring the next generation of STEM leaders. Our work is focused on three key areas:

- **In-School Time:** Collaborating with schools to enhance STEM education, providing teachers with professional development and resources.
- **Out-of-School Time:** Offering engaging STEM programs and resources to ignite curiosity and creativity beyond the classroom.
- **Professional Experiences:** Connecting youth and industry professionals, creating real-world experiences through mentorship and competitions.



Inspiring & Preparing **YOUTH**



Out-of-School Time

- Me & My Math Mentor



Professional Experiences

- Competitions
 - SeaPerch Underwater Robotics
 - Regional Science Fair
- See It, Be It Speakers Bureau
- Space Week
- Women in STEM Events

Supporting & Strengthening **EDUCATORS**



Out-of-School Time

- Professional Development
- Program Evaluations
- STEM Experience Playbook
- STEM Shoppe



In-School Time

- Excellence in STEM Education Awards
- High-Quality Instructional Materials
- Professional Development
- STEM Shoppe
- Teacher Appreciation Events
- Weathering the Storm Curriculum

Engaging & Equipping **ECOSYSTEM**



Out-of-School Time

- Advisory Councils
- Family STEM Nights
- Grants for PD & Supplies
- Kite Festival
- North Tulsa STEM Hub
- STEM in a Bag
- STEMtember



In-School Time

- Advisory Councils
- Grants for PD & Supplies
- North Tulsa STEM Hub
- STEMtember



Professional Experiences




- Advisory Councils
- Grants for Competitions



The Future Leaders of STEM

Over the past year, we have sparked innovation in young minds through engaging STEM competitions and mentorship.

By fostering a supportive and inclusive community, we empower youth to embrace their full potential as future scientists and engineers. Our hands-on challenges and personalized mentorship have inspired a diverse cohort of young learners to excel in STEM and connect with a broader scientific community.

PROJECT	INPUTS	IMPACT
 SeaPerch	196 youth, 60 teams, 10 school districts	Participants showed +8 to +12 ppt growth in interest in STEM and STEM careers, STEM identity, excitement about STEM, and expectations for success.
 Me & My Math Mentor	391 youth, 15 sites, 114 mentors, 1,642 hours	According to data provided by Union Public Schools, participating students were 1.8x more likely to gain proficiency on local math assessments than their peers.
 Siegfried Space Week	951 youth, 27 schools (60% rural, 81% Title I), 13 partners	94% of students surveyed indicated leaving with an understanding of what STEM careers are available. 45% indicated they felt more motivated to pursue STEM careers.





Out of School Time

SeaPerch CHALLENGE

The SeaPerch Challenge provides an exciting, hands-on opportunity for students to design, build, and test remote-operated, underwater vehicles as part of a collaborative competition outside the traditional classroom. Through this initiative, students engage in critical thinking, teamwork, and problem-solving while learning core engineering principles related to robotics and underwater exploration. As they advance from regional competitions to the international event hosted by RoboNation, Inc., participants gain real-world skills, explore STEM career paths, and develop the confidence to envision themselves as future innovators in these fields.

Professional Experiences



Me & My Math MENTOR



Me & My Math Mentor connects students with STEM professionals who lead them in weekly, math-focused board games, creating a fun and interactive environment that strengthens both math skills and self-confidence. This unique mentorship program offers youth the invaluable opportunity to work alongside real-life role models who are actively shaping the future of these STEM fields. As a result, participants not only see growth in their math competence and confidence but also experience improved attendance and a stronger sense of STEM identity.



In-School Time

Siegfried SPACE WEEK

Space Week is an immersive celebration of space exploration that enhances in-school STEM learning by sparking curiosity and excitement about STEM careers among youth of all ages. Through field trips, professional workshops, and interactive community experiences, students connect classroom concepts to the real-world science, technology, and engineering behind space missions. By engaging in these activities and interacting with aerospace professionals, participants gain a deeper understanding of STEM subjects and discover career pathways, ensuring they see aerospace and STEM as tangible, inspiring futures.



13,760

YOUTH ENGAGED

through TRSA-led projects such as family nights, competitions, and mentorship events

13,886

YOUTH REACHED

through TRSA-powered community events and partner experiences

2,513

MENTORSHIP

experiences in which youth work with caring adults on STEM skills and social-emotional development

27,813

STEM IN A BAG KITS

distributed to families, classrooms, and out-of-school time groups, offering hands-on experiences

46,056

TRSA-LED YOUTH EXPERIENCES



Featured Interview: HARINI SENTHIL

Science Fair Winner & Jenks High School Senior

By: Jaime Walton

JW: Can you tell us about your research project that advanced to the International Science and Engineering Fair?

HS: My research focused on how the rise of xylazine, fentanyl, and synthetic opioid overdoses from 2018 to 2022 has influenced harm reduction and overdose response strategies in Oklahoma. I conducted a statistical analysis of fatal overdose trends and drug seizure reports using Drug Enforcement Administration (DEA) data and interviewed 20 local public health stakeholders to contextualize the challenges and opportunities in Oklahoma's opioid epidemic.

JW: How has participating in the Tulsa Regional Science Fair shaped your interest in STEM and your confidence as a researcher?

HS: The Science Fair has been an amazing opportunity to share my research, connect with other student researchers, and explore new approaches to global challenges. It boosted my confidence in presenting my work in academic settings and introduced me to various STEM careers through expert panels and judge interviews. My passion for addressing the opioid crisis has led to opportunities like leading the Tulsa Opioid Informed Youth Advisory Board, writing op-eds on safe medication disposal, designing the app Crisis Averted, and meeting with policymakers.

JW: How do you see your work contributing to health or science fields in the future?

HS: I hope my qualitative research raises public awareness about the devastating opioid crisis and inspires actionable solutions.

JW: What role did mentors, teachers, or family play in supporting your journey in STEM?

HS: From designing a tin foil boat as a kid to presenting at the International Science & Engineering Fair (ISEF), I'm incredibly grateful for my supportive family and inspiring educators who sparked my curiosity in STEM. I also appreciate TRSA for organizing engaging activities like the Tulsa Regional Science Fair!

JW: How do programs like the Tulsa Regional Science Fair better support students like you in pursuing their passions?

HS: Helping more students across Tulsa access research opportunities is essential. Everyone has a unique perspective to contribute to the scientific community. The creative freedom to plan, execute, and present a science fair project allows students to experience the joy of STEM exploration.

JW: What are your future plans in STEM?

HS: I plan to major in Public Health on the Pre-Med track in college to contextualize overdose data, address the root causes of addiction, and improve healthcare accessibility for marginalized populations. I'm also interested in researching the epigenetics of addiction through molecular biology and pursuing a career in addiction psychiatry to advocate for empathetic, person-centered approaches to the opioid epidemic.








Assisting Expert EDUCATORS

By offering tailored professional development, curriculum, and resources, we are not only empowering educators to build confidence in their STEM competencies but also equipping them to create inclusive, engaging STEM learning environments that inspire all students to succeed.

Our impact:

- **Enhanced Educator Confidence:** Our programs boost teaching skills and foster a strong sense of community.
- **Significant Cost Savings:** In 2024, we saved schools and organizations over \$268,948 through our STEM Shoppe lending library.

PROJECT	INPUTS	IMPACT
 Siegfried Space Week STEM Night PD	33 teachers (32% new to TRSA), 14 districts, 12 hours	Participants entering with low competence or confidence in teaching STEM lessons reported +32 and +42 ppt improvement, respectively, as a result of the training.
 Weathering the Storm Curriculum	6 units 8 advisory council members 7 Oklahoma pilot schools 1 out-of-State pilot school	The curriculum will be finalized in 2025 and will serve as the first-of-its-kind integrated STEM meteorology career awareness curriculum available in Oklahoma middle schools.
 SENSEsational Science PD	27 teachers (43% new to TRSA), 21 districts, 17 hours, 5 partners	92% of participants reported high competence and 100% reporting high confidence, representing a +46 and +38 ppt improvement, respectively, as a result of the training.





Out of School Time

Siegfried SPACE WEEK PD

The Space Week STEM Night Professional Learning workshop empowered educators and community event coordinators with the tools, strategies, and resources to create engaging, aerospace-themed STEM experiences, such as Family STEM Nights. In partnership with the NASA Oklahoma Space Grant Consortium's STEM Engagement Center, this initiative focuses on helping facilitators cultivate an atmosphere of belonging where all students and families feel welcome and inspired to explore STEM. Through innovative, hands-on activities, participants engage learners of all backgrounds in exciting STEM experiences that highlight the endless possibilities of aerospace and other STEM fields.

Professional Experiences



Weathering the Storm CURRICULUM



Developed in partnership with the Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO), Weathering the Storm is a cutting-edge STEM curriculum focused on earth science and Oklahoma weather. Piloted in 2024 and launching in 2025, this middle-school curriculum builds students' understanding of weather patterns, natural disasters, and the role of technology in disaster preparedness. By connecting real-world issues to STEM careers, youth are inspired to engage in solving global challenges and are prepared to become future leaders in meteorology.



In-School Time

SENSEsational SCIENCE PD

SENSEsational Science is a year-long professional development program that supports upper-elementary educators in delivering sensory-rich, hands-on science lessons. In 2024, the program focused on using the sense of sight and the pedagogical skill of "making thinking visible" through modeling. Educators gain practical strategies for making science accessible and engaging, empowering them to create inclusive classrooms where all students can grasp scientific concepts and feel confident pursuing STEM opportunities.

40

unique professional development experiences

62

educators borrowing devices and materials from STEM Shoppe

278

hours of professional learning opportunities

843

formal and informal educators from across the state

5,041

hours of hands-on learning for educators

97.5%

of teachers reported leaving PD experiences with the knowledge and skills to teach high-quality STEM lessons





Featured Interview:

TULSA COUNTY PARKS

Kim Watson & Patrick Hayes

By: Jaime Walton

JW: What impact have you seen the STEM in a Bag kiosks and STEM activities have on families and youth in the parks?

PH: Homeschool students use them regularly, and teachers from nearby communities pick up kits for their students. Families who discover the kiosks often return monthly to explore the variety of kits available. Over the past year, we've distributed approximately 7,200 kits through this program.

JW: How does STEM education align with your vision for community recreation and engagement?

KW: Tulsa County Parks (TCP) is dedicated to youth and community development. Our vision includes raising standards in youth development, healthy living, diversity, and meeting community needs. STEM education, alongside conservation education, plays a critical role in shaping programs that align with these goals.

JW: What excites you most about the partnership between Tulsa County Parks and Tulsa Regional STEM Alliance?

KW: Partnering with TRSA is an honor! The STEM in a Bag kiosks pilot program was a joint effort between TRSA and TCP, and we also collaborate on events like the Kite Festival, Earth Day, and funding for the Samuel Washington Woodhouse Nature Center at Chandler Park. TRSA is a vital resource, leading STEM education efforts regionally and statewide.

JW: What unique opportunities or challenges come with incorporating STEM into recreation programs like those at Chandler Park?

KW: Chandler Park and all TCP parks have unique opportunities to integrate STEM with natural resource and conservation education programs. The STEM kits allow families to continue their scientific exploration at home. We haven't encountered significant challenges—everyone, from children to adults, has been excited to try the kits, finding enrichment and fun in the learning process.

JW: In what ways do you see programs like STEM in a Bag fostering stronger connections within the community?

KW: Education should have no barriers—social or economic. TCP programming serves learners of all ages, abilities, and backgrounds. Programs like STEM in a Bag bring people from diverse backgrounds together, breaking down barriers and fostering stronger community connections.

JW: Are there plans or dreams for expanding STEM programming in Tulsa County Parks?

KW: Absolutely! STEM education is a key component of our future conservation programs and events. Plans include developing gardens, conservation management projects, Earth Day celebrations, and an outdoor interpretive area. STEM will remain integral to these initiatives.

JW: How has working with TRSA influenced your approach to programming?

PH: TRSA has inspired us to be more intentional in managing processes, evaluating programs, refining educational content, and delivering impactful programming. Their high standards challenge us to meet community needs through their support and partnership.

JW: How do you think exposure to STEM activities in a recreational setting can spark long-term interest in science and learning among youth?

PH: Our goal is to connect parks with recreation, conservation, and STEM programming to foster a lifelong love of science, stewardship, and action. These programs support youth development and citizen science while encouraging long-term engagement in STEM and conservation learning for a better future.








Nurturing a Thriving STEM Ecosystem

We're building a vibrant STEM ecosystem for Tulsa and beyond by uniting families, educators, businesses, and community leaders. Together, we're creating hands-on STEM experiences that inspire and empower young minds, opening doors to opportunities that make STEM education equitable, accessible, and transformative.

Through the power of collective impact, each partner—parents, teachers, and industry leaders—plays a vital role in preparing every youth to succeed in a technology-driven world. Join us in shaping a future where all youth can explore, thrive, and lead through the power of STEM.

PROJECT	INPUTS	IMPACT
 Digital Badges	8 partners 16 digital badges 3 levels of badges	376 badges awarded to 3rd–12th grade students through out-of-school learning experiences, recognizing participation and skill acquisition.
 Volunteers	451 volunteers 10 partners adopting schools 2,065 hours	Valuable support saving TRSA \$69,157—equivalent to \$33.49 per hour—according to the Nonprofit Leadership Center.
 STEM Hubs	28 partner organizations 4 meetings	Collaborative work addressing four key hindrances to access to excellent STEM experiences in North Tulsa.





Out of School Time

Digital Badging MOMENTUM

The Digital Badging program empowers students to earn credentials that highlight their STEM skills and accomplishments through diverse out-of-school initiatives. By collaborating with organizations to design meaningful learning pathways, this program provides students with hands-on experiences and tangible recognition in specific STEM disciplines. Digital badges not only build robust student portfolios, but also create pathways to future STEM experiences, including internships, advanced learning opportunities, and career exploration. This initiative nurtures a culture of lifelong learning, fostering a sense of belonging and engagement in STEM fields while addressing gaps in access and equity.

Professional Experiences



Volunteering to SUPPORT STEM



Our Volunteer Program mobilizes dedicated individuals who play a vital role in supporting youth throughout their STEM education journey. Volunteers serve as mentors, judges, and event facilitators, bringing hands-on experiences and real-world perspectives that inspire students. In 2024, volunteers contributed 2,065 hours and made it possible for TRSA to extend its reach, helping to expand our programming while also saving valuable resources and strengthening our community's investment in the future of STEM.



In-School Time

North Tulsa STEM HUB

The North Tulsa STEM Hub is a dynamic collective of dozens of collaborators committed to addressing the common challenges facing STEM education in North Tulsa, including access to resource and capacity, transportation, program providers, and family engagement. By aligning local efforts and strengthening community-based partnerships, the Hub provides pathways for youth to gain STEM skills and become inspired by STEM careers. Working together to close the opportunity gap in underresourced areas, this collaborative initiative ensures that youth in North Tulsa have the resources, support, and opportunities to thrive in a STEM-enabled future, empowering them to succeed both in and out of the classroom.

376

DIGITAL BADGES

awarded to students by certified badging partners, exceeding our launch goal of 150

\$107,950

FUNDING

awarded to organizations and schools through grants

451

VOLUNTEERS

supporting our mission and making events and programs possible

2,065

VOLUNTEER HOURS

spent mentoring, judging, providing logistic support, and more

30

MOMENTUM COLLABORATORS

dedicated to engaging in collective impact and continuous improvement efforts across the alliance





Featured Interview: TYLER RUSSELL

USA BMX Foundation Program Manager

By: Jaime Walton

JW: How did USA BMX Foundation first become involved in STEM programming, and what drew you to partner with TRSA?

TR: We began incorporating STEM into our programming to use the sport of BMX as a platform to inspire and educate young minds. BMX naturally integrates physics, engineering, and problem-solving, making it a great fit for STEM. Our collaboration with TRSA aligns perfectly with our mission to make STEM accessible, engaging, and relevant.

JW: Can you share a memorable moment where you saw STEM programming make a difference for a student or group?

TR: One standout moment was during a Track Modeling Program event. A student initially uninterested in STEM became deeply engaged in designing a BMX track and learning about soil science. Watching them connect STEM concepts to something they loved—and ultimately express a newfound interest in science—was incredibly rewarding to witness.

JW: How do you see STEM activities complementing the core mission of USA BMX Foundation?

TR: BMX isn't just a sport; it teaches critical skills like problem-solving, creativity, and perseverance. STEM programming builds on this by showing students how the science behind BMX applies to their lives and future careers, broadening their horizons while staying true to our goals.

JW: What excites you most about integrating STEM into your programs and working with TRSA?

TR: What excites me most is the opportunity to make STEM accessible and exciting for students who may not have considered it otherwise. Collaborating with TRSA has opened doors to connect with other STEM partners, providing valuable resources and opportunities. Growing our network while inspiring students to explore the connections between STEM and BMX has been incredibly fulfilling.

JW: What challenges or opportunities have you encountered while incorporating STEM into your camps, out-of-school time experiences, or other programs?

TR: One challenge has been creating programs adaptable to different learning styles and experience levels, which has also driven us to innovate and develop more inclusive programming. Another key focus has been finding and training passionate counselors who can effectively bridge STEM and BMX, and we've worked hard to build a team that shares our vision.

JW: Are there any future plans or dreams for expanding STEM initiatives within USA BMX Foundation?

TR: We are continually looking for ways to expand and enhance our STEM initiatives. We're developing instructional videos for each module of our STEAM Kit Program to provide clear explanations for instructors, especially on bike-related concepts. These tools will make our programs more accessible and easier to implement, empowering educators and expanding the impact of our STEM initiatives.

JW: Why do you think it's important for youth to engage with STEM in environments outside traditional classrooms?

TR: Engaging with STEM outside traditional classrooms helps students see its real-world applications and connect it to their interests and passions. It challenges the idea that STEM is only for certain people or careers. By integrating STEM into fun, hands-on activities like BMX, we make learning approachable, inspiring, and accessible to all.



Education Collaborators

- All Saints Catholic School
- Arapaho-Butler School District
- Atlas School Tulsa
- Beggs Public Schools
- Berryhill Public Schools
- Bethany Public Schools
- Bixby Public Schools
 - Bixby Central Intermediate School
- Blackwell Public Schools
- Blanchard Public Schools
- Braggs Public Schools
- Bray-Doyle Public Schools
- Bristow Public Schools
- Broken Arrow Public Schools
 - Broken Arrow Freshman Academy
 - Broken Arrow High School
 - Centennial Middle School
 - Oliver Middle School
 - Spring Creek Elementary School
 - Timber Ridge Elementary
- Caney Valley Public Schools
- Catoosa Public Schools
- Choctaw-Nicomma Park Schools
- Chouteau-Mazie Public Schools
- Christian Home Educators Encouragement Resource
- Claremore Public Schools
 - Catalayah Elementary
 - Westside Elementary
- Code.org
- College Bound Academy
- College of Muscogee Nation
- Collinsville Public Schools
 - Collinsville High School
- Coweta Public Schools
- Crescent Public Schools
- Crooked Oak Public Schools
- Cushing Public Schools
 - Cushing Middle School
- Deer Creek School District
 - Deer Creek Intermediate
- Dibble Public Schools
- Discovery Lab
- Dove Schools
 - Dove School of Discovery Tulsa
 - Dove Science Academy High School
 - Dove Science Academy Middle School
- Dover School District
- Drexel Academy
- El Reno Public Schools
- Engineering is Elementary
- Enid Public Schools
- Epic Charter Schools
- Erick School District
- Fairland Public Schools
- Fletcher Public Schools
- Fort Gibson Public Schools
- Frederick Public Schools
- Frink-Chambers Public School
- Glenpool Public Schools
- Grandview C-4 School District
- Haskell Public Schools
- Healdton Public Schools
- Hilldale Public Schools
- Howe Public Schools
- Hydro-Eakly Public Schools
- Inola Public Schools
 - Inola Elementary School
- Jay Public Schools
- Jenks Public Schools
 - Jenks East Elementary
 - Jenks East Intermediate
 - Jenks Trojan Aquatic Center
 - Jenks West Elementary School
- Keystone Public Schools
 - Keystone Elementary School
- Kiefer Public Schools
- Kingfisher Public Schools
- Lawton Public Schools
- Liberty Public Schools
- Lone Grove Public Schools
- Mannford Public Schools
- McAlester Public Schools
- Mid-Del School District
 - Epperly Heights Elementary
- Mill Creek School District
- Mingo Valley Christian
- Monte Cassino School
- Moore Public Schools
- Morris Public Schools
- Morrison Public Schools
 - Morrison High School
- Mounds Public Schools
 - Mounds Middle School
- Muldrow Public Schools
 - Muldrow Middle School
- Mustang Public Schools
- NASA Oklahoma Space Grant Consortium
- Northeastern State University
- Oakdale Public Schools
- OERB (The People of Oklahoma Oil and Natural Gas)
- Okeene Public Schools
 - Okeene Jr-Sr High School
- Oklahoma City Public Schools
- Oklahoma Council of Teachers of Mathematics (OCTM)
- Oklahoma IDEa Network of Biomedical Research Excellence (OK-INBRE)
- Oklahoma Science Teachers Association (OSTA)
- Oklahoma State University
 - Center for Research on STEM Teaching and Learning
 - College Park
- Oktaha Public Schools
- Outdoor Classroom
- Owasso Public Schools
 - Mills Elementary
 - Owasso Preparatory Academy
- Paoli Public Schools
- Philosophy: A Modern Academy
- Pitsco Education
- Porter Consolidated Schools
- Poteau Public Schools
- Preston School District
- Pretty Water Public School
- Prue Public Schools
- Pryor Public Schools
- Putnam City Public Schools
 - Northridge Elementary School
- Rejoice Christian School
- Roff School District
- Sand Springs Public Schools
 - Clyde Boyd Middle School
- Sapulpa Public Schools
- Shawnee Public Schools
- Skiatook Public Schools
- Snyder Public Schools
- Southwestern Oklahoma State University
- Sperry Public Schools
- St. Pius X School
- Summit Christian Academy
- Tahlequah Public Schools
- Taloga Public Schools
- Technology Student Association
 - Droneworks
- Timberlake Schools
- Tishomingo Public Schools
- Tonkawa Public Schools
- Town and Country School
- Tulsa Classical Academy
- Tulsa Community College
- Tulsa Homeschool Academy
- Tulsa Public Schools
 - Anderson Elementary
 - Burroughs Elementary
 - Carnegie Elementary School
 - Celia Clinton Elementary School
 - Central Middle School
 - Felicitas Mendez International School
 - Hawthorne Elementary School
 - Henry Zarrow International School

260+
Collaborative
AGENCIES

We're grateful for the amazing organizations that have worked tirelessly to make a difference in STEM education. Together, we're creating a brighter future for our community.

Collaborators

STRENGTHENING STEM



- Tulsa Public Schools (cont.)
 - John Hope Franklin Elementary School
 - Kendall-Whittier Elementary School
 - Key Elementary School
 - Lanier Elementary School
 - Lewis & Clark Elementary School
 - Lindbergh Elementary School
 - MacArthur Elementary School
 - McClure Elementary School
 - Monroe Demonstration Academy
 - Patrick Henry Elementary School
 - Robertson Elementary School
 - Sequoyah Elementary School
 - Skelly Elementary School
 - Springdale Elementary School
 - Thoreau Demonstration Academy
 - Tulsa School of Arts and Sciences
 - Tulsa Virtual Academy
 - Wayman Tisdale Fine Arts Academy
- Tulsa Technology Center
- Union Public Schools
 - Boevers Elementary
 - Cedar Ridge Elementary School
 - Darnaby Elementary School
 - Ellen Ochoa Elementary
 - Jefferson Elementary School
 - Marshall T. Moore Elementary School
 - Rosa Parks Elementary
 - Union 6th/7th Grade Center
 - Union High School
- United States Earth Science Organization
- University of Oklahoma
 - OU-Tulsa
- University of Tulsa
 - Fab Lab Tulsa
 - University School
- Varum Public Schools
- Verdigris Public Schools
- Vinita Public Schools
- Warner Public Schools
- Wellston Public Schools
- Westville Public Schools
- White Rock Public Schools
- Woodland School District
- Yale Public Schools
- Youth at Heart

Community Collaborators

- Assistance League of Tulsa
- Beyond100K
- Boy Scouts of America
 - Bixby Pack 41
 - Glenpool Cub Scouts Pack 188
 - Sapulpa Troop 225
- City of Broken Arrow
 - Ray Harral Nature Center & Park
- Ed Darby Foundation
- Engage Learning
- Gathering Place
- George Kaiser Family Foundation
 - InvestNorth
- Global Gardens
- Hyde Park Neighborhood Association
- Junior Achievement of Oklahoma
- National Charity League, Greater Tulsa
- Oklahoma State University
 - Tulsa County 4-H
- REC Foundation
- Reed Community Foundation
 - Ben Hill Community Center
- Space for Us
- Teach Not Punish
- The Metropolitan Baptist Church
- The Rotary Club of Will Rogers
- Tulsa Air and Space Museum & Planetarium
- Tulsa City-County Library
 - Martin Regional Library
- Tulsa County Parks
 - Chandler Park
 - LaFortune Park
 - O'Brien Park
 - South County Recreation Center
- Tulsa Engineering Foundation
- Tulsa Parks
 - Chamberlain Park
 - Hicks Park Community Center
- University of Tulsa
 - True Blue Neighbors
- Urban Coders Guild
- USA BMX Foundation
- YWCA of Tulsa

Government & Tribal Nation Collaborators

- City of Broken Arrow
- City of Tulsa
- Oklahoma State Department of Education
- U.S. Army Recruiting Battalion
- Oklahoma Department of Agriculture, Food and Forestry
 - Oklahoma Forestry Services

Workforce Collaborators

- AAON
- Bank of Oklahoma
- Blue Cross and Blue Shield of Oklahoma
- CEC
- CF Industries
- Chevron Renewable Energy Group
- Dynamic Skies
- Gamr
- Garver
- Georgia-Pacific
- Google - Mayes County Data Center
- John Zink
- Kappa Kappa Iota
- KSQ Design
- NORDAM
- OETA
- Oklahoma Central Credit Union
- QuikTrip
- SLB
- SpiritBank
- TDW
- Ten-Nine Technologies
- Tulsa Section of the American Chemical Society
- Williams

Our Impact is FUELED BY

A heartfelt thanks to all our 2024 supporters for their pivotal role in powering our mission. Your incredible generosity and passion for STEM education in Oklahoma is inspiring. Thank you!

\$100,000+



CHARLES AND LYNN
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FAMILY PHILANTHROPIES

GEORGE KAISER
FAMILY FOUNDATION

Oklahoma
OIL & NATURAL GAS
OERB

\$50,000-\$99,999



\$25,000-\$49,999



\$10,000-\$24,999

- Accenture LLP
- American Crating Company, Inc
- Arvest Foundation
- Bank of America
- Tom & Jess Biolchini
- Paul & Madison Boullion
- Jimmie & Nicole Cameron
- Catering by PARTYSERVE
- CF Industries
- The Chickasaw Nation
- Cintas Corporation
- DAVIS GRAHAM & STUBBS
- Fiber Pad, Inc
- Fleming Construction Group
- Friends of the Siegfried & Madden Families
- Chuck & Leigh Ann Fuller
- Gallagher
- Al Givray
- Google
- Gulfstream Aerospace
- The Helmerich Trust
- Hendrick Heat, Air & Plumbing
- Huron
- JPMorgan Chase
- Nathan & Madison Lovelle
- Pete & Meredith Siegfried Madden
- MIRATECH
- Queen of Clubs
- QuikTrip
- River Spirit Casino Resort
- Saint Francis Health System
- Lisa Schwarz
- Amy & Raegen Siegfried - Flying Squirrel Farms
- Hastings & Dianne Siegfried
- Spirit AeroSystems, Inc
- Scott & Vanessa Thompson Foundation
- Triple Crown Energy
- Tulsa Plastics Co
- Tulsa Technology Center
- The University of Tulsa
- Carley Williams

\$5,000–\$9,999

- Advanced Plastics & Advanced Machining
- Aeron Group
- American Airlines
- APA Services
- Ascension St. John
- Atento Capital
- AVTECH
- The Bama Companies
- Bank of Oklahoma
- Blue Cross and Blue Shield of Oklahoma
- Robert & Marjo Burk
- CBIZ
- Commerce Bank
- Contrast Energy, LLC
- Cox Communications
- Cuesta Foundation
- Ryan & Sarah Darby
- John & Marianne DiDonato Foundation
- John W. Dissly
- Emerson
- Ernst & Young LLP
- Dan Eslicker
- Fastenal
- Flintco, LLC
- Garver
- Gateway First Bank/Gateway Mortgage
- Grant Thornton
- Green Country Aircraft
- Hall Estill
- Helmerich & Payne
- Hexcel Corporation
- Hillcrest
- hummingbird.tech
- Steve Idoux
- Last Night's Game
- Mabrey Bank
- The Mayo Hotel & Residences
- Danny & Jan McKee
- Melton Truck Lines
- Mervin Bovaird Foundation
- Meshri Family
- Nelson Auto Group
- Oklahoma Department of Aerospace & Aeronautics
- Omni Air International, LLC
- ONE Gas
- OSU Foundation, OSU College of Engineering, Architecture and Technology, OSU-Tulsa
- PwC
- RAE Corporation
- John Redmond

- Cliff & Carol Robertson
- Rupe Companies
- Sanguine Gas Exploration
- Savannah Properties, Inc
- Amy & Raegen Siegfried
- Southern Glazer's Wine & Spirits of Oklahoma
- TDW
- TTCU Federal Credit Union
- Tulsa Bone and Joint Associates
- UMB Bank
- Wilkerson Family
- Maureen & Lane Wilson Family
- World Travel Services
- Carrie & David Zenthoefer
- Zink Family Foundation

\$1,000–\$4,999

- Advance Alarms, Inc
- American Waste Control
- Anonymous Donor
- Eric & Kari Atkinson
- Terry & Martha Barker
- Krista Bendana
- Jeffry Black
- Cory & Lynn Bowker
- Brown & Borelli
- Budco, Inc
- Nathan Butterfield
- Mike Bunney
- Capital Advisors, Inc
- Case & Associates Properties
- Bryan Close
- Mark & Lisa Dalton
- Mike & Laura Daniel
- Ken & Lisa Davis
- William Dost & Mindy Stitt
- Shea & Robin Ferrell
- Kelcy & Carlos Flores
- Melanie & John Gilbertson
- Jonathan Given
- Grand Bank
- Scott & Mary Hausman
- Isaac & Lindsey Helmerich
- HoganTaylor LLP
- Imperial LLC
- Jordan & Sons, LLC
- Ginger & Dave Kollmann
- Angela Kouplen
- Phil & Adriane Lakin
- Don Lambert
- Don Law
- David & Sandi Litzinger
- Mariner
- Chad & Amy Mariska
- Leslie McCollum
- MidFirst Bank

- Julie & John Nickel
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- ONE80 Consulting
- Oracle
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- CB Rowan
- Kulsum Siddiqui
- Terrell & Alecia Siegfried
- Joel & Melinda Stinnett
- Summit Club
- Donna Swank
- Ten-Nine Tech
- Tulsa Engineering Foundation
- Tulsa Innovation Labs
- Tulsa Warbirds Foundation
- USA BMX Foundation
- Stephani Wagoner
- Wallace Design Collective
- Greg Wood

\$500–\$1,000

- Steven & Nancy Altman
- American Institutes for Research
- Anonymous Donor
- Erin Bendel
- Wendy & Greg Brooks
- Jared & Elizabeth Burden
- Darren Cotton
- Terasita Cowan
- Sara & David Cressman
- Anita Fangmeier
- Marissa & Justin Fengler
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- Matthew & Deanna Fulghum
- Sharon Griffin
- John & Jennifer Haste
- Rosa & Josh Hathaway
- Michael Hitz
- James & Robin Holly
- Raymond Hoyt
- Cheryl Humphries
- Colin & Alexandra Huntley
- J.B. & Carrie Jarboe
- Christie Little
- David Losacco
- MIDI Servicios LLC
- Josh Miller
- Mandy Monahan
- Yas Nakayama
- Dennis Neill
- Jeri O'Dell
- Kristi Perryman
- Stephanie & Daniel Regan

Your support empowers the next generation.

Thank you for helping to ensure that all our programs, events, services, and resources remain accessible to everyone, eliminating financial barriers and empowering individuals from all walks of life to engage with STEM.

330+
Contributing
DONORS

\$500-\$1,000 cont.

- Scott Rodehaver
- Kevin Short
- Steven & Dede Soulé
- Tamra Spence
- Diana Stucky
- Stuart & Sally Sullivan
- Jeremy Tidmore
- Xavier Villarreal
- Buck Wheaton
- Chase Williams
- Barbara & Richard Wollmershauser
- Patricia Wrenn

Under \$500

- Steve Allen
- Erin Armstrong
- David Atkinson
- Paulina Baeza
- Allison Bailey
- George Baird
- Shelby Beil
- Eric & Morgan Biggers
- Cassady Blakesley
- Boeing
- Jackson Bowker
- Marilyn D. Boyd
- Heath & Amanda Bringham
- Matthew & Lindsey Bristow
- Toni & Ted Budd
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- Randall Burke
- Lawrence Burleigh
- Cody Burnett
- Tori Burris
- Jason Butler
- Tim Cargile
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- Coy Dill
- Candice Doctor
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- John Flick
- Marcus Flusche
- Jackson Fuller
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- Matt Warne
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- Travis White
- Vancouver Wilkerson
- Alyn & Bryan Williams
- Ben Winfrey
- Tyra Woodard
- Chris Zenthoefer



"I have found that among its other benefits, giving liberates the soul of the giver." - Maya Angelou

Financials

STATEMENT OF ACTIVITIES

REVENUE

CORP/BUSINESS CONTRIBUTIONS	1,926,781	1,615,303	1,557,601
INDIVIDUAL CONTRIBUTIONS	31,637	15,121	24,803
GRANTS	316,920	993,705	284,148
OTHER REVENUE	15,663	28,264	41,814
TOTAL REVENUE	2,291,001	2,652,393	1,908,366

PROGRAM EXPENSES

MENTORING	114,259	253,856	157,991
COMPETITIONS	54,177	114,483	120,199
OUT OF SCHOOL TIME	212,809	133,374	67,736
CURRICULUM & RESOURCES	73,845	191,115	229,756
PROFESSIONAL DEVELOPMENT	410,114	169,921	199,755
FAMILY & COMMUNITY	41,629	94,420	50,456
STEM ECOSYSTEM	182,196	293,220	240,712
GENERAL PROGRAM	173,628	186,914	207,047
TOTAL PROGRAM EXPENSES	1,262,657	1,437,303	1,273,653

SUPPORTING SERVICES

MANAGEMENT & GENERAL	444,433	417,943	476,753
FUND DEVELOPMENT	430,997	634,536	628,316
TOTAL SUPPORTING SERVICES	875,430	1,052,479	1,105,069

FINANCIAL POSITION

ASSETS

CHECKING & SAVINGS	940,618	560,133	370,653
PLEDGES RECEIVABLE	112,710	493,716	217,227
PROPERTY & EQUIPMENT, NET	298,052	266,204	217,003
OTHER ASSETS	316,984	295,115	257,329
TOTAL ASSETS	1,668,364	1,615,168	1,062,212

LIABILITIES & NET ASSETS

CREDIT CARDS	19,847	7,742	8,455
OTHER LIABILITIES	675,445	471,743	388,480
NET ASSETS WITH DONOR RESRICTIONS	385,847	590,583	360,196
NET ASSETS W/OUT DONOR RESTRICTIONS	587,225	545,100	305,081
TOTAL LIABILITIES & NET ASSETS	1,668,364	1,615,168	1,062,212

Fiscal Year: January 1 - December 31

*Not yet audited



VIEW OUR 990



SCAN

CLICK



FLIGHT NIGHT

Next Gen: Creating the Future of STEM

Flight Night is our signature fundraising event, raising crucial funds that enable us to achieve our mission and create a world of NextGen STEM programs. Following the generous leadership of NORDAM and the Siegfried Family over the last decade, we were excited to once again host this fun and impactful fundraiser.

The 2024 event featured captivating airshow acts, an awe-inspiring drone display, a dynamic live auction, a savory gourmet dinner, and the well-deserved recognition of four exceptional educators who champion STEM education across Oklahoma. With the persistence of a passionate 26-person volunteer planning committee, we engaged 103 sponsors and experienced a record-breaking night of event, raising more than \$216,000 from individual attendees.

This event remains the cornerstone of our fundraising efforts, enabling us to empower students and educators, fostering excellence and equity in STEM education throughout our state. A huge thank you to all of our sponsors, donors, and volunteers who helped make it the best Flight Night yet!

\$800k
Net Raised

700+
Attendees

4
Educators
Recognized



2024 Chairs
Ginger and Dave Kollmann

Honorary Chairs
The Siegfrieds
Bailey, Hastings Meredith,
Milannie, Raegen, & Terrell



Educator of the Year: ELAINE HUTCHISON

Okeene Jr/Sr High School

By: Jaime Walton

JW: What does receiving the Siegfried Excellence in STEM Education Award mean to you personally and professionally?

EH: Coming from a family of educators, I deeply appreciate this recognition. It validates the importance of our work at Okeene Public Schools and highlights the achievements of our students and community. This award is a significant honor for me personally and a testament to the value of our STEM program.

JW: Can you describe some of the innovative teaching methods or projects you've used to inspire students in STEM?

EH: Our STEM curriculum is diverse, encompassing 3D modeling, circuitry, drones, robotics, and virtual/augmented reality.

JW: How has the \$8,000 grant funding enabled you to expand or enhance your work?

EH: The grant has significantly enhanced our program. We've replenished essential supplies, purchased student electronics kits, acquired a classroom set of Arduinos, and invested in a 3D scanner for advanced projects. This funding also allows us to expand STEM opportunities to our elementary school students.

JW: What challenges and opportunities do you see in teaching STEM in rural schools?

EH: A major challenge is limited exposure to real-world STEM careers. Rural schools may also face financial constraints in acquiring necessary equipment and technology. However, rural settings offer unique opportunities. I'm fortunate to facilitate mentorship between older and younger students and foster cross-curricular collaborations.

JW: Over your 30-year teaching career, how have you seen STEM education evolve, and what excites you most about its future?

EH: Witnessing the evolution of STEM education from traditional methods to the current era of technology-driven learning is truly inspiring. The potential for students to explore their passions, create innovative solutions, and contribute to a rapidly changing world through STEM education is incredibly exciting. I'm particularly passionate about creating student-centered learning environments that integrate multiple STEM disciplines.

JW: What motivates you to continue teaching after so many years, and what keeps your passion for STEM alive?

EH: I LOVE seeing my students apply their knowledge in practical ways that I know will directly influence their future. Seeing students go through iterations of the Engineering Design Process and take a project from ideation to final product is awesome to witness, and it inspires me to continue. When former students reach out and tell you that you made a difference in their lives, it serves as encouragement and motivation to continue my passion for STEM and for teaching.

JW: What are your future goals in STEM education, and how do you see your role evolving in the next few years?

EH: My current goals are to continue building momentum for STEM within our district, mentor other teachers, and serve as a resource for STEM programs across Oklahoma. I am committed to advocating for accessible STEM education for all students and showcasing the incredible work of our students. I also hope to become more involved in the state STEM Consortium and further strengthen my connections within the STEM community.



Strategic Plan Updates

Since early 2022, we have been making progress toward realizing our five-year strategic plan, which included 109 initiatives designed to ensure the thriving of our STEM ecosystem and the operational maturity of our organization.

As of 2024, we have completed **39 initiatives** and are actively working on **37 more!** Check out the number of initiatives that have been completed or are in progress by goal below.

Strategic Priority 1: The STEM Ecosystem is Thriving

11 of 13



Youth

Youth are surrounded by resources, opportunities, and encouragement that excite them about STEM and propel them forward.

10 of 13



Families

Families value STEM education and choose to engage with TRSA to meet the needs of their students.

9 of 16



Educators

Educators are confident in facilitating STEM experiences in order to drive student success and see TRSA as a trusted source for evidence-based resources and pathways to inspire and prepare students.

14 of 20



Ecosystem Partners

STEM Ecosystem Partners value their membership because it strengthens and amplifies their work and that of the Alliance.

Strategic Priority 2: TRSA is Operationally Mature

11 of 15



Staff

We are fully-staffed with little to no turnover, have opportunities for growth and development, and collaborate across our diverse strengths in a safe environment so we all feel welcome.

7 of 8



Board

Our Board represents the community it serves, engages and enables TRSA's staff in its mission, and has a sustainable membership pipeline.

8 of 13



Finance & Development

TRSA has a secure and sustainable financial outlook supported by robust and diverse revenue streams.

12 of 13



Operations

As a team, we can grow our organization and its impact with consistency and confidence in our processes because we understand our responsibilities, know who is running with what, and meet our commitments mutually.



Staff

Levi Patrick
Executive Director

Emily Mortimer, PhD
VP of STEM Ecosystems

Jennah Applebaum
Communications & Impact
Manager

Allison Bailey
Program Manager

Katie Burk
Director of Development

Melissa Cobb
Senior Program Manager

Christie Little
Accountant

Anitra Parish
Operations & Program
Logistics Manager

Michelle Rahn
Program Manager

Abigail Vensel
Program Manager

Jaime Walton
Community Engagement
Manager

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Muscogee Nation

Mary Hausman
Williams

Christine Koerner
American Institutes for
Research

Angela Kouplen
ONE Gas

Yas Nakayama
QuikTrip

Cheena Pazzo
ONE80 Consulting

Lisa Schwarz
OERB

Kulsum Siddiqui
Union Public Schools

Annie Tomecek
TDW

Stephanie Vickers-Regan
AAON

Xavier Villarreal
Hillcrest Medical Center



Tulsa Regional
STEM Alliance

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(918) 779-4910

TulsaSTEM.org