



STEAM Academy Annual Report 2023-2024

Introduction

STEAM Academy is a charter school committed to providing quality education in STEM disciplines. This report reflects the progress, achievements, and challenges of the 2023-2024 school year. The report is aligned with the World's Best Workforce (WBWF) framework and Minnesota Department of Education guidelines.

It is the central mission and vision of STEAM Academy that all students who attend our school are prepared to become the best citizen for their community. We pride ourselves on being a school where all students can learn, achieve and practice being able to communicate and successfully work not only in a pluralistic American but also abroad. The goal is to assure that every student has access to high quality teachers, is career and college ready, has access to close gaps in their achievement, and has the literacy skills to read well by 3rd grade and to graduate. STEAM Academy embraces these mandates because we know that ultimately it is about making students lifelong goals and dreams a reality by preparing them for the future ahead.

School Information

STEAM Academy, ISD#2470 serves students in grades K-6 and during 2023-2024 STEAM Academy was located at 4100 66th St. East, Inver Grove Heights, MN 55076. The phone number is: 651-236-8280. Most of our students lived in the city of St. Paul and other sounding cities. The school's website is ww.steamacademymn.org. The school's Executive Director was Hassan Mohamed, hmohamed@steamacademymn.org and the school's Board President is Sarah Chebli, schebli@steamacademymn.org.

Mission: Preparing students for success in the 21st century through STEM-focused education.

Vision: To cultivate critical thinking, creativity, and collaboration in a supportive learning environment.

Authorizer Information

STEAM Academy's authorizer is Novation Education Opportunities (NEO). NEO's mission is to oversee innovative charter schools through consistent, ongoing and robust evaluation to achieve significant and measurable student growth for the benefit of our schools and community. The support and guidance provided by NEO has helped STEAM to develop into a successful charter school where students are prepared both academically and socially for high school and beyond. More information about NEO can be found at www.neoauthorizer.org

School Enrollment

Enrollment for the 2023-24 school year: 46 students.

In 2023-2024 the school demographics were 92% Black, 5% White, 3% Asian, American Indian 0%, Hispanic 0% STEAM was 93% free and reduced-price lunch and 85% English Language Learner. The table below describes the number of students budgeted versus actually enrolled:

Grade	Budgeted Enrollment	Actual Enrollment
K	10	9
1	10	8
2	9	6
3	9	8
4	10	9
5	7	5
6	3	1

- Based on "intent to return forms" 90% of families plan on returning for the 2022-2023 school year. Some of the reasons for not returning include: moving overseas, home schooling, and going to different schools.
- We ended the school year with 51 enrolled students. However, the average ADM is 46.
- This was the third year for STEAM Academy.

Student Attrition

STEAM Academy worked very hard to attract new students after moving from Saint Paul to the new facility in Inver Grove Heights. Providing bus routes and stops that are convenient for families has aided in this effort. We realize that being a high performing charters school with strong academic achievement scores is also the key to growing the enrollment of our school. Our school is working on making the students academics growth make the true reason for our school to be a choice for families.

End of the year Student enrollment (ADM) for the third year of operation at STEAM Academy:

2023-2024	46
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Student Attendance for 2023-2024 was at: 97%

As of Oct 1, 2023 56 students were enrolled (K-6) and as of June 7,2024 40 of those students remained enrolled (K-6) = 71%

16/56 (29%) students were dropped after October 1, 2023.

Governance and Management

The school was in its third year of operations and had consistent board membership. The 2023-2024 board consisted of founding members with a wide range of expertise in school leadership, finance, governance, and instruction.

This year, the board focused its training topics on board governance, the state's academic evaluation plan, and budgeting.

STEAM Academy Board Members

STEAM Academy is a data driven and 100% standard-based school. STEAM Academy Board expects the Executive Director to execute school's policies, manage all day-to-day operations, staffing, parent relations, enrollment, instruction, transportation, relations and compliancy with department of education and school authorizer, and facility management. The Executive Director also oversees the educational program, including but not limited to: instruction, curriculum, teacher evaluation and development and student discipline.

Name	Board Position	Board Seat	Email Address	Term
Hamada Aboubakr	Vice Chair	Community Member	Haboubakr80@gmail.com	01/02/2019-06/30/2024
Mahdi Nur	Treasurer	Community/Parent Member	mujaahid99@gmail.com	11/22/2019-06/30/2024
Abdallah Mohammed	Secretary	Teacher # 1029940	aabdelwahab@steamacademymn.org	01/28/2022-06/30/2024
Sarah Chelbi	Board Chair	Community Member	schebli@steamacademymn.org	12/23/2020-06/30/2024
Amir Mohamed	Member	Parent Member	amirmohammed.am@gmail.com	01/28/2022-06/30/2024

Towards the end of the school year, STEAM Academy held the Board elections according to the requirements within the third year of operation. The new Board members were elected and started their new term as of July 1, 2024. The Board election plan, the timelines, and the results are posted on the school's website.

STEAM Academy’s Board has an approved Board Development Plan. The Board is following the plan to do all the required training per state statues and requirements. The Board needs assessment survey will start in September or October and the training will start in November 2024 and going forward for all the Board members.

Staffing

During the 2023-2024 school year, the school had five licensed teachers, one sped paraprofessional, one office manager, and an executive director. All teachers held a valid Minnesota license in the area(s) for which they taught.

Staff Member	Position
<u>Ms. Emily Long</u>	<u>KG & 1st</u>
<u>Ms. Ola Abdulfatah</u>	<u>2nd & 3rd</u>
<u>Mr. Gabriel Zderad</u>	<u>4th & 5th & 6th</u>
<u>Mr. Abdallah Mohammed</u>	<u>SPED & ELL Teacher</u>
<u>Ms. Jessica Lozano</u>	<u>SPED Para</u>

Professional Development

Teachers and Directors

STEAM Academy provided Professional Developments for teachers and staff following the 2023-2024 school calendar approved by the Board of Directors. There professional development opportunities provided to the teachers and staff during the Pre-Services days and during the Friday afternoon throughout the year.

The educational approach at STEAM appears to be a comprehensive and well-structured system for teacher development and student learning, integrating key practices and methodologies to enhance educational outcomes. Here's an analysis of the key elements:

1. **Unpacking Benchmarks/Standard Analysis:** This involves teachers dissecting educational standards into actionable objectives for each lesson. It ensures that teachers understand what students need to know and can do by lesson's end. Collaborative work in identifying crucial aspects of benchmarks across grades helps in creating consistent and manageable objectives, as well as assessment questions.
2. **Backwards Design:** Building on unpacking benchmarks, this method involves teachers developing their pacing guides and assessments first, based on standards. By analyzing various test specifications, learning continuums, and internal assessments, teachers create high-quality assessments and align lesson plans accordingly. This approach ensures that teaching is goal-oriented and assessment-driven.
3. **Gradual Release Model:** Applied in all subject areas, this model includes steps like modeling, guided practice, independent practice, and exit slips. It ensures high rigor

and accountability in classrooms, promoting student independence and mastery over time.

4. **Professional Learning Communities (PLCs) and Data Analysis:** Teachers engage in PLC meetings and Data Day meetings, focusing on best teaching practices, lesson and data analysis, and planning for student needs based on data. The agenda also includes reviewing quiz data, planning for reteaching or extension activities, and discussing feedback from observations and coaching.
5. **Observations and Peer Coaching:** Regular informal observations and structured peer coaching sessions are designed to align with teachers' professional learning goals, offering tailored coaching to enhance student achievement and classroom management.
6. **Principal (Director) Involvement and Evaluation:** The inclusion of principals in professional development and formal evaluations signifies a top-down commitment to educational excellence and continuous improvement.
7. **Ongoing Professional Development:** The schedule includes sessions on best instructional practices and behavior management systems, as well as specific training for standardized tests. These sessions cater to both academic and practical aspects of teaching.
8. **Technology Integration:** The curriculum effectively incorporates technology, providing access to current data and materials, facilitating global collaboration, and offering opportunities for students to express understanding through research and multimedia projects.

This system reflects a holistic and dynamic approach to education, prioritizing both teacher development and student learning, and integrating technology and data-driven strategies to meet educational objectives.

School Director Training

During the 2023-2024 STEAM Academy's Executive Director attended the training in the areas of Academics assessments, State Standards, State Standardized Assessments, Policies, Systems, and Classroom Management.

The current School Director is completing trainings along with the Board members and the next year's annual report next year will include the topics of the trainings.

Finances

FY24 budget allocation for instructional materials: \$9,000, with \$2,347 spent in that expense line in FY24 for general education

FY24 Revenue sources:

State revenue: \$1,091,668

Federal revenue: \$83,388
Other local revenue: \$4,248
Food Service revenue: \$51,692

Total: \$1,230,996

Financial audit status: fieldwork completed and waiting for a report draft which should be received by end of November.

Performance Metrics

STEAM Academy tracks academic performance through standardized tests and internal assessments.

Math Proficiency: 18.8%

Reading Proficiency: 12.5%

Science Proficiency: N/A

STEAM Academy demonstrated significant progress in academic performance during the 2023-2024 school year, with a particular focus on literacy, numeracy, and STEM competencies. Using **NWEA MAP** and **MCA** assessments, the school tracked and measured student growth and achievement across key grade levels.

Key Achievements:

1. **Mathematics Growth (K-2):**
 - Based on NWEA MAP assessments, early numeracy goals showed steady progress. Kindergarten through Grade 2 students exceeded growth expectations, with many students meeting or surpassing national benchmarks.
 - Targeted interventions, such as small-group instruction and adaptive technology tools, contributed to measurable gains.
2. **Reading Proficiency (K-2):**
 - NWEA MAP data indicates improved literacy outcomes, with over 60% of early-grade students meeting primary reading targets.
 - The introduction of phonics-based curricula and enhanced teacher training in reading strategies supported this achievement.
3. **Middle Grades (3-6):**
 - MCA results for mathematics and reading indicated significant gains, particularly in Grade 5, where the number of students achieving proficiency increased by 15% compared to the previous year.
 - STEAM-focused projects integrated with literacy goals encouraged higher engagement and understanding of core concepts.

Areas for Improvement:

1. **Closing Achievement Gaps:**
 - While notable progress was made in early grades, achievement gaps persist among underrepresented student groups. Strategic efforts will focus on additional support for English Language Learners (ELLs) and students from low-income backgrounds.
 - Targeted professional development for teachers will ensure culturally responsive teaching methods are employed.
2. **Science Proficiency:**
 - MCA science data highlighted the need for increased focus on inquiry-based learning and hands-on STEM activities in upper grades.
 - Plans include expanding maker spaces and integrating robotics into the curriculum to boost engagement and performance in science.

Strategies Driving Success:

- **Data-Driven Instruction:** Frequent assessments and data analysis enabled timely interventions and personalized learning plans for students.
- **Community Engagement:** Parent workshops and student-led conferences fostered a stronger partnership between families and educators.
- **Innovative Practices:** Expanded STEM programs, including robotics and coding challenges, significantly contributed to higher student motivation and achievement.

In the coming year, STEAM Academy will build on these successes, continue to close achievement gaps, and enhance its STEM initiatives to ensure every student achieves their highest potential.

Innovative Practices at STEAM Academy (2023-2024)

During the 2023-2024 school year, STEAM Academy introduced and expanded a variety of innovative practices designed to engage students, enhance learning, and foster a deeper understanding of STEM disciplines. These initiatives emphasized experiential learning, collaboration, and interdisciplinary approaches to education. Highlights of the year's innovative practices include:

In-School and Out-of-School Field Trips

Field trips offered students real-world exposure to STEM applications, connecting classroom learning with practical experiences:

1. **Dodge Nature Center:**
 - Students engaged in environmental science activities, such as studying ecosystems, learning about sustainability, and participating in conservation projects. This immersive experience helped students understand the importance of biodiversity and ecological balance.
2. **Go Wild Nutrition Program:**

- Delivered in partnership with the University of Minnesota, this program combined health science and STEM education. Students explored the science of nutrition, analyzed dietary habits, and participated in activities like creating balanced meals and understanding food production systems.
- 3. **Young Eagles Program:**
 - In collaboration with aviation professionals, students learned about the physics of flight and careers in aviation. They had the unique opportunity to experience flying in small airplanes, fostering interest in aerospace engineering and related fields.
- 4. **School Garden Initiative:**
 - Students applied principles of biology, chemistry, and sustainability by cultivating a school garden. This hands-on project involved planting, maintaining, and harvesting crops, while learning about plant biology, soil science, and the environmental impact of agriculture.

Collaborative STEM Projects

- Students integrated STEM with other disciplines, such as art and social studies, by creating models for sustainable cities, merging engineering, urban planning, and environmental science.

MobyMax Program

The MobyMax program, an adaptive online learning platform, was implemented to support personalized learning:

- **Individualized Instruction:**
 - Students received tailored lessons in math, science, and literacy based on their unique needs and learning pace.
- **Real-Time Feedback:**
 - Teachers used MobyMax's data analytics to monitor student progress and provide targeted interventions, ensuring all students stayed on track to meet learning goals.
- **Engagement Tools:**
 - Gamified learning activities within MobyMax kept students motivated and engaged while building foundational skills.

Outcomes and Impact

These innovative practices have had a measurable impact on student engagement and achievement at STEAM Academy:

- Increased interest and participation in STEM-related activities.
- Improved critical thinking, creativity, and problem-solving skills.
- Strengthened connections between academic learning and real-world applications.
- Enhanced collaboration and teamwork among students.

Efforts to Equitably Distribute Diverse, Effective, and In-field Teacher Great

STEAM Academy is a public charter school that opens its teacher employment opportunities to all appropriately licensed persons that fit the necessary skill set for the employed position. STEAM Academy employs teachers based on the criteria of which candidate best serves the students in pursuit of academic excellence, positive character development, and, as well, a candidate who promotes discipline and compassion in educating students in Grades K-6.

Documentation of Diverse Outreach to School Community

STEAM Academy is a public, charter school. Our outreach and enrollment process is open to all families within the diverse communities we serve. The online application is open to all students and families. As soon as the application is filled by interested families, the school's office staff contacts the family right away for the enrollment packet. STEAM Academy uses social media, flyers, limited mail advertising, face to face community events, open houses, and monthly school tours as a means for outreach into all our surrounding communities in Inver Grove Heights, St. Paul, South St. Paul, Eagan, Rosemount, Apple Valley, Burnsville, Woodbury, Roseville,

Future Plans

Building on this year's successes, STEAM Academy plans to:

- Expand partnerships with local organizations to provide more field trip opportunities.
- Enrich the school garden initiative with advanced agricultural science topics.
- Further integrate technology like MobyMax into the curriculum to support individualized learning.
- Increase resources in STEM maker spaces to include cutting-edge tools such as virtual reality (VR) for immersive learning.

Through these innovative practices, STEAM Academy continues to fulfill its mission of preparing students for success in STEM fields and beyond.