

ORION
STEM
SCHOOLS

K-8. Innovation & Entrepreneurship.

2022-27 STRATEGIC FRAMEWORK

*“If we teach today’s students as we taught
yesterday’s, we rob them of tomorrow.” - John Dewey*



EDUCATION AT ORION STEM SCHOOLS

K-8 Innovation & Entrepreneurship

Igniting the Flame of Curiosity

At Orion STEM Schools, we firmly believe in the boundless potential of every child. Our mission? To awaken this potential, nurture it, and provide an environment where young minds can thrive. We urge our students to be curious, to question the status quo, and to forge innovative pathways in their pursuit of knowledge and originality.

Our commitment goes beyond merely academic development. Every facet of our educational approach aims to holistically nurture both the cognitive and the emotional sides of our students, empowering them to tackle challenges with intelligence, empathy, and resilience.

Passionate Inquiry in the Heart of Naperville

Drawing inspiration from the rich academic heritage of institutions like the University of Chicago, Orion is deeply rooted in a culture of passionate inquiry, original thinking, and constructive discourse. It is within our walls that students are inspired to ponder life's big questions, delve deep into the realm of STEM, and develop an entrepreneurial mindset — all while benefiting from our partnerships with globally renowned institutions.

Orion STEM Schools' commitment to questioning and inquiry-based learning.

At Orion STEM Schools, the essence of our educational ethos is rooted in the profound act of questioning. We firmly believe that life itself is a continuous journey of learning. Central to our educational framework is the idea that every student, with their innate curiosity and potential, stands at the heart of this learning experience.

We take immense pride in taking our students seriously—as intuitive thinkers and as vital contributors within our community of learners. This is an environment where the innate wisdom each student brings to the table is valued and built upon. Such mutual respect fosters an unwavering confidence in our students, empowering them to not only seek answers but to challenge existing notions and craft new paradigms.

True to our dedication to inquiry, Orion classrooms buzz with the vibrant energy of exploration. Here, students aren't just encouraged to ask "why?" but also "what if?", "how might we?", and "what's next?". Together, hand in hand with peers and educators, they traverse these intriguing paths of inquiry, unraveling answers, and more importantly, discovering new questions along the way.

A sense of belonging is integral to human existence. It is important for a school to intensify relationships and give a sense of belonging and community.



Questioning / inquiry is the core of the learning process.

A LEGACY OF VISIONARY EDUCATIONAL IDEALS

Although we are at the dawn of our journey, our foundations are built upon the esteemed principles of pioneering educators, echoing the spirit of visionaries like John Dewey. John Dewey's conviction in the transformative power of education is a torch we proudly carry forward. Our association with premier educational institutions guides us, ensuring that the essence of innovative learning and discovery is always at the forefront of what we do.

'We do not learn from experience... we learn from reflecting on experience.'

John Dewey



What's in a question you ask? Everything.

John Dewey

Parents are the first and most influential teachers of children.



EXPERIENTIAL LEARNING

Learn by Doing

At Orion STEM Schools, the heart of our educational approach is deeply rooted in experiential learning, inspired by the pioneering philosophy of John Dewey. Dewey championed the belief that meaningful education isn't just about memorizing facts but about active participation and engagement. His "learn by doing" principle resonates with our ethos, emphasizing the idea that students comprehend and retain concepts most effectively when they are actively involved and when learning is interwoven with real-world experiences.

Orion STEM Schools takes this principle to heart. Our curriculum is meticulously designed to provide students with hands-on experiences that breathe life into theoretical concepts. We believe that by immersing students in authentic, real-life scenarios, they don't just learn - they understand, innovate, and apply. Every project, every lab experiment, and every field trip is an opportunity to dive deeper, question further, and explore the vast realms of possibility.

In our dynamic learning environment, students are consistently encouraged to be curious, to challenge conventions, and to seek solutions. This approach not only solidifies their grasp of STEM concepts but also equips them with critical life skills such as problem-solving, critical thinking, and adaptability. At Orion STEM Schools, every experience is a stepping stone to discovery, and every challenge faced is a lesson in resilience and innovation.

"Give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking; learning naturally results."

John Dewey



When curiosity is respected, it results in high self-confidence and self-esteem, which results in a sense of security.

KEY BELIEFS

Nurture Critical Thinking & Problem Solving

At Orion STEM Schools, we foster the quintessential habits of intricate reasoning and advanced problem-solving. Our ethos is firmly rooted in key beliefs and principles:

- **Curiosity is innate in every child.** At Orion, we cultivate this natural propensity, prompting each student to embark on their own journey of questions and explorations.
- **Adopting a flexible mindset is vital.** It equips our students to navigate challenges innovatively and to appreciate the vast spectrum of solutions that different perspectives bring.
- **Valuing evidence is paramount across all disciplines,** from our state-of-the-art labs to our interactive humanities sessions. Our students are trained to form their own hypotheses, test them rigorously, and iteratively refine their understanding based on empirical data.
- **Personal agency and self-expression** are at the core of the Orion experience. Our students, right from their formative years, learn to articulate their thoughts confidently, engage in constructive dialogues, and advocate for their ideas.
- **Diversity and inclusivity** are the pillars of true academic and life excellence. Orion STEM Schools take pride in fostering a community enriched by varied backgrounds, experiences, and viewpoints. It's this mosaic of diverse insights that many families find compelling about Orion.

"At Orion STEM Schools, we empower young minds to believe in themselves, nurture their unique talents, dream big, and be agents of positive change to become tomorrow's innovators, problem-solvers, and leaders. My commitment is to provide a rich, comprehensive, and stimulating environment where curiosity is encouraged, knowledge is pursued, and discovery happens daily."

Selvei Rajkumar



*Problem-based learning/
Long term projects give
deeper knowledge, and
students can retain more
information for a long time.*

2022-2027 STRATEGIC FRAMEWORK:

Why Now? Why a Strategic Framework?

As Orion STEM Schools gear up for an ambitious new era marked by the years 2022 to 2027, our gaze is unwaveringly fixed on offering unparalleled education while concurrently embodying the esteemed virtues that underpin our foundation.

This strategic framework:

- **Sets Forth Our Vision:** It maps out the goals we've envisioned for Orion STEM Schools in the pursuit of educational supremacy—a caliber of education that holistically addresses the multifaceted development of every student, inspired by the spirit of innovative and experiential learning.
- **Emphasizes Operational Harmony:** Recognizing the intricacies of managing an expansive and diverse institution, this framework underscores the significance of seamless systems, robust structures, and optimal resource utilization. Our ambition is to strike the perfect equilibrium between autonomy, accountability, and coherence, not just in our pedagogical strategies but also in the architectural design of our organizational ethos.
- **Directs Collective Progress:** The framework serves as a compass, guiding us on how to support an exemplary educational blueprint and foster a vibrant, collaborative school community where every stakeholder feels valued, heard, and motivated to contribute to our shared vision.

As we stand on the cusp of this pivotal period, it's imperative to have a strategic roadmap that not only outlines our aspirations but also delineates the path to achieve them. The time is ripe for Orion STEM Schools to redefine the paradigms of STEM education and mold the leaders of tomorrow.



ORION STEM SCHOOL'S VISION & MISSION

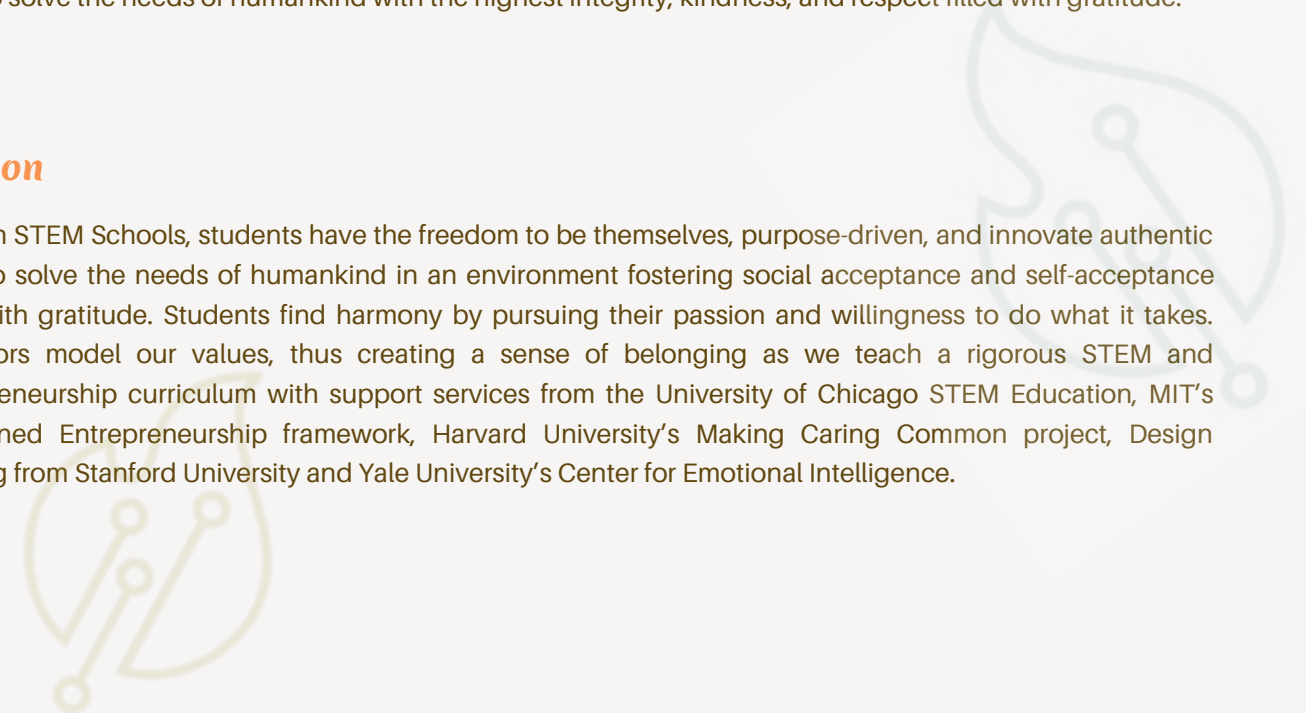
Vision

We believe all children are capable and have the right to pursue their passion in a high-quality educational environment. Orion STEM students thrive with the freedom to explore their curiosities and innovate authentic ideas to solve the needs of humankind with the highest integrity, kindness, and respect filled with gratitude.

Mission

At Orion STEM Schools, students have the freedom to be themselves, purpose-driven, and innovate authentic ideas to solve the needs of humankind in an environment fostering social acceptance and self-acceptance filled with gratitude. Students find harmony by pursuing their passion and willingness to do what it takes. Educators model our values, thus creating a sense of belonging as we teach a rigorous STEM and Entrepreneurship curriculum with support services from the University of Chicago STEM Education, MIT's Disciplined Entrepreneurship framework, Harvard University's Making Caring Common project, Design thinking from Stanford University and Yale University's Center for Emotional Intelligence.

Our mindset is as important as social-emotional intelligence, which is as important as academics.





*We are products
of our
environment.*

CORE VALUES

Student Centeredness

At Orion STEM Schools, every student's unique voice and perspective steer our educational journey. We empower them with the choice to carve their own paths, fostering an environment where they truly feel seen and heard.

Innovation

Our school is a breeding ground for fresh ideas, where STEM expertise melds seamlessly with an inventive spirit. Pupils here don't just learn—they invent, create, and envision solutions for tomorrow.

Entrepreneurial Spirit

Challenges and obstacles? At Orion, we teach our students to see these as golden opportunities, nurturing a mindset that finds promise even in adversity.

Collaboration

While each student learns the value of standing strong independently, Orion also emphasizes the unparalleled power of interdependence and team effort. Our classrooms echo with ideas, discussions, and the collective energy of young minds working together.

Belonging and Wellness

Balance is key. At Orion, we focus not just on intellectual growth but also on cultivating harmony between thought, action, and compassion, ensuring our students' well-being in every dimension.

Diversity & Inclusion

Every voice, background, and story finds a home at Orion. We champion an environment where the tapestry of diverse experiences enriches our collective learning journey.

STEM Education will prepare students for the future, for jobs that we cannot even imagine right now.



STRATEGIC GOALS

1. Campus Construction & Design

- 1.1. **Design** innovative and collaborative spaces in collaboration with architects.
- 1.2. **Commence** groundbreaking activities by Spring 2024.
- 1.3. **Implement** sustainable and environmentally-friendly building practices.

2. Curriculum Development

- 2.1. **Forge** partnerships with UChicago STEM Education and Stanford d.school to curate a top-tier STEM curriculum focused on rigorous problem-based experimental learning.
- 2.2. **Integrate** Social-emotional learning by collaborating with Harvard's Making Caring Common Project and Yale Center for Emotional Intelligence.
- 2.3. **Adopt** MIT's Disciplined Entrepreneurship curriculum, tailoring benchmarks and practices for K-8.
- 2.4. **Pioneer** a Medical Science curriculum in collaboration with Dr. Ira Rubin, founder of the mini-medical school.
- 2.5. **Emphasize** experiential and problem-based learning from the outset.

3. Building a Diverse & Inclusive Community

- 3.1. **Promote** diversity through awareness campaigns targeting a broad initial student intake.
- 3.2. **Craft** policies to ensure an inclusive environment for everyone.
- 3.3. **Provide** financial aid programs catering to a range of socioeconomic backgrounds.

4. Faculty Recruitment & Development

- 4.1. **Assemble** a dedicated team of educators aligned with the school's mission.
- 4.2. **Facilitate** ongoing training and professional development programs for faculty.

5. Community Engagement & Partnerships

- 5.1. **Engage** with local entities to foster community ties prior to the school's inauguration.
- 5.2. **Establish** strategic alliances with international educational institutions.
- 5.3. **Showcase** the school's ethos, vision, and objectives through community events for stakeholders.

6. Technology & Infrastructure Planning

- 6.1. **Conceptualize** agile furniture, fixtures, and equipment to reflect the school's curriculum and foundational principles.
- 6.2. **Invest** in cutting-edge educational technology.
- 6.3. **Develop** classrooms and labs integrated with advanced technology.



IMPLEMENTATION & ACCOUNTABILITY

Regular Updates

Keep the community informed about construction progress, faculty recruitment, and curriculum developments.

Stakeholder Engagement

Organize town hall meetings to gather feedback and address queries from parents and the community.

Advisory Board Formation

Assemble a board of educational experts, community leaders, and global partners to provide strategic insights.

Transparency Commitment

Release periodic reports outlining plans, achievements, and challenges, ensuring clear communication with stakeholders.



ORION: WHERE THE FUTURE BEGINS

The Orion STEM Schools represent more than just a learning institution; they are a crucible where the leaders, innovators, and thinkers of tomorrow are being molded. As we stride with anticipation toward our grand opening in 2026, we warmly invite you to become a part of this exciting odyssey of education and discovery.





K-8. Innovation & Entrepreneurship.

