STEMCOLLEGIATE
EDMONTON

EDUCATION PLAN 2024-2027

ACCOUNTABILITY STATEMENT

The 2024-2027 Education Plan for STEM Collegiate was prepared under the direction of the Board in accordance with the responsibilities under the *Education Act* and the *Sustainable Fiscal Planning and Reporting Act*. This plan was developed in the context of the provincial government's business and fiscal plans.

The Board has used the STEM Collegiate Canada Society Application approved by Alberta Education to develop the plan and is committed to implementing the strategies contained within the plan to improve student learning and results.

The Board approved the Education Plan for 2024-2027 at the May 2024 Board meeting.

CHERYLL WATSON
Board Chair

LIANA APPELT
Superintendent

FROM THE BOARD CHAIR

STEM Collegiate is transforming education in Edmonton and beyond

STEM Collegiate Canada Society (STEM Collegiate) is the first Collegiate to be approved in the Province of Alberta and is focused on meeting the evolving needs of our students and empowering them for the future economy. In a landscape where economic diversification and global competitiveness are paramount, Alberta requires a workforce adept in relevant and real-world STEM disciplines.

The STEM Collegiate Board takes pride in endorsing the Three-Year School Education Plan for 2024-2027, confident that it will uphold our Charter Goals.

This plan is deliberately designed to offer students extensive exposure to a spectrum of pivotal technology topics, ensuring that every student is afforded meaningful and rigorous learning opportunities within a unique and comprehensive STEM-focused educational environment.

"In a landscape where economic diversification and global competitiveness are paramount, Alberta requires a workforce adept in relevant and real-world STEM disciplines."

Sincerely,

CHERYLL WATSON
Board Chair

OUR VISION

We will be recognized as the premier center of 7-12 innovation in the areas of STEM education and STEM curriculum development in Edmonton Alberta.

Students will be knowledgeable leaders, global thinkers and innovative risk takers who are inspired to solve key challenges in a rapidly changing world.

OUR MISSION

Our school exists to prepare students to be life-long learners, effective global communicators, creative problem solvers, and tomorrow's industry leaders. Students will reach their maximum potential through innovative learning opportunities and an intellectually nurturing environment that emphasizes STEM knowledge and skill.

Students, teachers, and parents work together to demonstrate a commitment to actively serving the community in which we operate, while demonstrating resilience, good judgment, and an understanding and respect of diverse viewpoints.

THE CHANGING CONTEXT

Technology is driving a revolutionary transformation of our economy, society and the nature of work

The pace of digital transformation shows no signs of slowing down. To navigate this ever-expanding digital world, students need stronger digital literacy skills to navigate this increasingly complex online world, the cybersecurity awareness to protect themselves and their data, and the data analytics skills to interpret the vast amounts of information they encounter.

"With a thriving ecosystem that fosters innovation and attracts top talent, the Edmonton region was ranked as North America's fastest-growing tech ecosystem – and we're just getting started. The Edmonton region is leading in clean technologies and is a global leader in artificial intelligence and machine learning, which is helping to further fuel this growth. The Edmonton region is where startups, scaleups and larger companies come to thrive."

Malcolm Bruce
CEO, Edmonton Global

More specifically, the continued advancement of artificial intelligence, automation and robotics is changing workforce needs and job market prospects. Research estimates that AI will replace humans in a quarter of current jobs, the majority of them held by women. This underscores the importance of meaningful opportunities for students to build complementary skills, such as complex problem solving, adaptability and creativity.

Similarly, advanced technologies, including quantum computing, nanotechnology and biotechnology, are quickly evolving and fueling a renewed emphasis on innovation. In response, these cutting-edge technologies need to be incorporated into the curriculum, which itself requires constant evolution.

At the same time, the convergence of technologies is blurring the lines between the physical, digital and biological domains, making 3D-printed organs and nanobots that deliver medication to human cells a reality. Access to technologies such as VR/AR simulations can make these advancements accessible to students. Emphasizing cross-disciplinary skills and knowledge will be increasingly crucial as convergence calls on STEM professionals to be able think and innovate across disciplines.

"There's been a 200 per cent increase in the number of tech companies in Alberta from 2012 to 2021 – that's 2,800 ventures generating new jobs. With only 12 per cent of those companies connected to the energy and mining sector, the diversification of Alberta's economy is a reality. Innovation is a key driver behind it. Innovation is something we can all agree on. It's the path to economic growth and diversification."

Dr. Brenda Kenny
Board Chair, Alberta Innovates
(May 2018 - April 2024)

We all want Alberta's students to be successful: well-educated, well-rounded and well-prepared. We want them to be ready to take on the world — to launch into adulthood with the knowledge, skills and enduring human capabilities (think critical thinking, flexibility and creativity) they need to live happy, productive and meaningful lives. While these principles continue to define the core purpose of K-12 education, the incredible pace of technological change demands that we reimagine how we are preparing students for the digitally driven future.

STEM CHAMPIONS, EDUCATION INNOVATORS

Our strategic value proposition: powering Alberta's STEM ecosystem through student-centred education innovation

STEM education is transforming learning and teaching in response to our changing world. Through hands-on learning, students develop practical solutions to local challenges, contributing to community development and addressing relevant issues. STEM helps develop a practice of critical thinking and problem-solving that will stay with students throughout their education, their lives and their livelihoods.

Providing learning experiences that mirror the use of innovative technologies in authentic workplaces does far more than prepare students for careers in these areas. Research demonstrates that connecting learning to real-world problems makes learning more meaningful, thereby boosting student engagement and making student learning more successful. Through STEM, students also gain valuable soft skills. They are challenged to think outside the box, solve problems and risk failure. They develop consensus-building and teamwork skills.

With a thriving STEM industry ecosystem and an extensive network of universities, colleges and polytechnics, Edmonton offers particularly extraordinary opportunities for us to enable students to make meaningful connections between the Alberta K-12 Programs of Study and real-world applications and career pathways. By collaborating with local industry and post-secondary institutions, STEM Collegiate is creating a richer learning environment for students and enabling them to explore the incredible innovations in areas where Edmonton is a global powerhouse, from AI to energy tech, from big data to health science.

STEM Collegiate provides a pivotal bridge between pioneering education and the industry's forefront, cultivating a new era of innovators and critical thinkers.

Through our focused, forward-looking and evolving curriculum and deep-rooted industry and academic partnerships, we empower our students not just to navigate the future but to shape it. Our graduates will be armed with the skills, knowledge and attitudes necessary to succeed in post-secondary STEM pathways; they will be the innovators ready to play a central role in building Alberta's prosperity.

WHAT IS A COLLEGIATE SCHOOL?

As defined by Alberta Education, "Collegiate schools offer specialized programming in a particular subject or field and provide all students with a clear pathway into post-secondary education and careers in their chosen field." The Province has identified a number of unique defining characteristics shared by all Collegiate schools. These include:

- focus on a specific subject area or field;
- formal collaboration with a post-secondary institution;
- experiential learning opportunities and work experience; and
- supported pathways to post-secondary, including dual credit courses or bridging opportunities.

KEY DESIGN ELEMENTS

1

RIGOROUS STANDARDS-ALIGNED CURRICULUM

To have all students meet or exceed the Ministerial Order on Student Learning and the Alberta Programs of Study, STEM Collegiate helps all students ameliorate Math and Science deficits in prior learning, develop grade appropriate skills and knowledge, and build a foundation for future success.

2

INDUSTRY AND POST-SECONDARY PARTNERSHIPS

We work diligently to formally connect with both industry and post-secondary institutions to ensure our programming is relevant, leading edge, and ties into the opportunities both groups have to offer our students. We respect feedback from students that flexibility is a key design feature as we build knowledge about what opportunities exist. We see opportunities for specialization early in high school and expect this will develop as students gain a better understanding of career options through our programming.

3

SHARED CULTURE, VALUES AND COMMUNITY HUB

STEM Collegiate strives to create a dynamic culture that is innovative, collaborative, supportive, inspiring, and respectful. High levels of collaboration form the core of a community. As a community we build strong, caring, and respectful relationships with parents, students, teachers, community and cultural organizations, and educational and industry partners.

4

BALANCED APPROACH TO TEACHING AND LEARNING

We embrace a variety of teaching strategies. Direct instruction provides a foundation of knowledge and concepts on which to build. Through project-based, problem-based, content-based and inquiry- based methodologies, teachers challenge students to use STEM knowledge as a vehicle for continued learning across the curriculum.

5

FUTURE-FOCUSED ORIENTATION

Our graduates will be prepared for success in post-secondary education, careers, and life through the acquisition of relevant STEM knowledge and skills. To this end, classwork incorporates practices, assignments, routines, and other structures of responsibility that encourage students to develop invaluable skills, including creative and critical thinking; innovation and entrepreneurship; collaboration and leadership, resilience, and self-reliance.

6

DIGITAL FLUENCY

Students master the concepts and tools of the latest technology. They understand how to effectively use technology, gaining proficiency with the latest innovations. Students also become technology creators, learning fundamentals of computing and coding as well as the design and creative elements represented in the maker movement. In addition, they will gain the capacity to incorporate technology beyond the classroom, developing sound decision-making skills regarding the selection and use of technology.

7

DIVERSITY & INCLUSION

Alberta must broaden the talent pool and boost overall participation in STEM, from under-represented groups, especially women, students of colour, and Indigenous students. Women and students of colour are underrepresented in STEM disciplines, representing a disproportionately low number of STEM undergraduates. Similarly, Alberta's Indigenous students currently experience disproportionately lower rates of academic achievement and high school completion. Broadening the appeal of the STEM Collegiate to these groups through intentional programming, both within the current Programs of Study, but also through the development of new and innovative locally developed courses. STEM Collegiate is committed to continuous action, learning, and improvement to ensure equitable access for students facing systemic barriers in accessing a STEM focused education and post-secondary opportunities.

2023-2024 HIGHLIGHTS

SCHOOL OPENING

STEM Collegiate opened its doors in August 2023 as the 16th Charter School Authority in Alberta. In our first year of operation, we welcomed 257 students in grades 7-9 in our beautiful state-of-the-art school facility in south Edmonton.

In late winter, we hosted a series of open houses for prospective students entering grades 7-10 in the fall. In September 2024, STEM Collegiate will expand to include a high school program, beginning with three cohorts of grade 10 students.

FUTURE READY SPEAKER SERIES

Through STEM Collegiate's Future Ready Speaker Series, our students hear from experts working in a cross-section of STEM fields. Hearing first-hand from experienced professionals provides students with valuable insights into future STEM pathways, an appreciation for the rapid transformation of our economy and a keener understanding of how STEM knowledge and skills translate into careers in different industries.

The highlight of this year's speaker series was the October visit and presentation by Ibrahim Gedeon, Chief Technology Officer at TELUS. Mr. Gedeon touched on artificial intelligence, smart cities and the design process. He also offered an overview of his own career journey and reflected on the kind of talents that TELUS and other industry leaders will be looking for in the future.

SCIENCE FAIR COMPETITIONS

In February, every STEM Collegiate student participated in our first in-school science fair. Ten STEM Collegiate students were selected to compete in the Edmonton Regional Science Fair hosted by NAIT in March 2024. Presenting their findings alongside hundreds of other Edmonton students, three of our students won awards for their projects:

Aditi R. won a gold medal and was also named winner of the ACPA Rick Dillen Award for their project "Separation of Pigments in Spinach Leaves by Paper Chromatography." In May 2024, Aditi will travel to Ottawa to represent STEM Collegiate at the 62nd annual Canada-Wide Science Fair.

Jainika J. earned a silver medal for their project "Practical AI: AI Cameras Transforming Wildfire Surveillance and Beyond."

Emma F. received an honourable mention for the B. K. Sinha Behavioral Sciences Research Award for their project "The Psychology of Serial Killers."

UNIQUE OPTIONS AND CTS COURSES

In January, our newly appointed Director of STEM joined our Director of Science and Director of Math to collaborate on the refinement of our grade 7-9 options and plan for the additional Career and Technology Studies (CTS) courses for grade 10. The graphic below provides an overview of these unique courses and pathways, which will continue to evolve as part of our ongoing curriculum work.

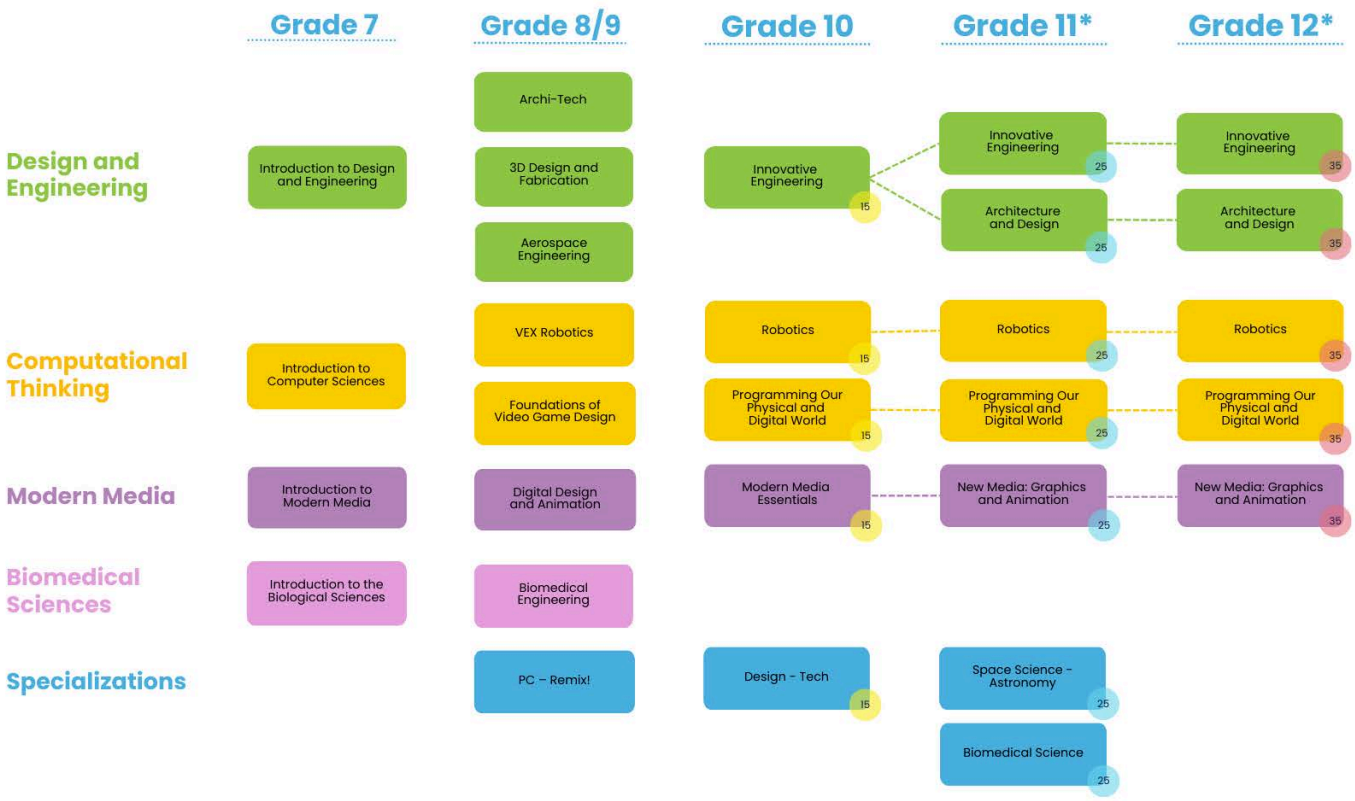
SPRING MARKET

In Health and Life Skills, our Grade 9 students hosted a Spring Market to showcase their Entrepreneurial skills. Students donated ten percent of the profits from sales to the Alberta Cancer Foundation.

POST-SECONDARY COLLABORATION

Our partnerships with post-secondary institutions continue to evolve. The signing of a memorandum of understanding with NAIT was a highlight of 2023-24, followed by a second memorandum with MacEwan University signed in May 2024. STEM Collegiate plans to engage with the University of Alberta and Concordia University of Edmonton in future years.

CURRENT STEM OPTIONS COURSE MAP (GRADES 7-12)



**Options may change based on student demand and developing opportunities in STEM fields*

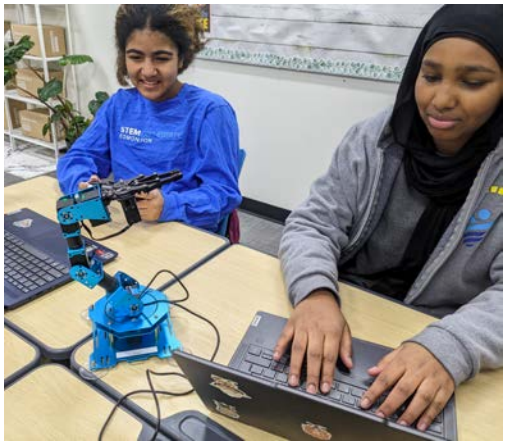
ATHLETICS

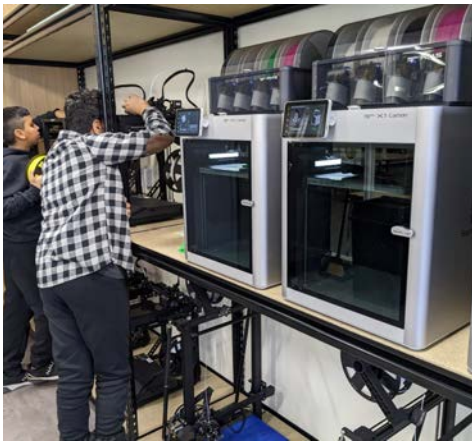
STEM Collegiate Storm athletic teams participated in the Edmonton Public School Board Athletic Association. Representing all grades, our student athletes competed in archery, badminton, basketball, soccer, track & field, volleyball and wrestling.

FIELD TRIPS

Field trips offer dynamic learning experiences to supplement classroom learning. This year, STEM Collegiate students enjoyed a number of memorable field experiences, including:

- Alberta Legislature Remembrance Day Assembly, November 2023 (Grade 9). Two STEM Collegiate students presented a wreath to our fallen soldiers on behalf of all K-12 students in Alberta.
- Fort Edmonton, May 2024 (Grade 7).
- Fort Heritage Precinct, Fort Saskatchewan, May 2024.
- Japanese Cultural Centre, planned for June 2024 (Grade 8).
- Physical Education field trips hosted by Rookie Rugby Alberta and Netball Alberta (Grades 7-9).





MATH CONTESTS

In February, 12 of our students competed in the Pascal Mathematics Contest run by the Centre for Education in Mathematics and Computing at the University of Waterloo. Grade 9 student Stella C. scored among the top 25 per cent of all 26,499 contestants. All STEM Collegiate Grade 7 and 8 students participated in the Gauss Mathematics Contest in May.

DEBATE

In February, STEM Collegiate hosted a well-attended Debate Tournament, welcoming 10 teams from other Edmonton schools for a qualifying regional competition. Later that month, STEM Collegiate students competed in the Junior High Debate Regionals alongside other junior high teams who are members of the Alberta Debate and Speech Association.

OUR TEAM

In February 2023, we were thrilled to announce the appointment of a new assistant principal to the STEM Collegiate leadership team. The assistant principal supports the principal and will play a key role in leading STEM Collegiate's high school expansion.

In the new year, we welcomed our first pre-service (student) teacher, an Advanced Field Experience (AFX) student from the University of Alberta who worked alongside staff from February-April 2024.

Our board has continued to evolve to ensure that STEM Collegiate has the expertise required to govern and grow. Our board members offer great depth and breadth of talent and experience in a wide range of fields, including technology, business and education (both K-12 and post-secondary).

STAKEHOLDER ENGAGEMENT

Meaningful stakeholder engagement is an essential component in our strategic planning process

Clear and transparent communication and meaningful stakeholder engagement are critical components to foster collaboration and ensure that school priorities and plans reflect student learning needs. Creating avenues for stakeholder involvement also builds trust and community support, which in turn fosters a positive environment for student learning and overall school success. Our stakeholder engagement enabled us to gather valuable input and feedback to inform our strategic priorities, education plan and future planning. STEM Collegiate stakeholder engagement activities for 2023-2024 included:

- STEM Collegiate surveys to parents, staff, and students, planned for June 2024.
- Provincial surveys to 257 students, parents and 16 staff (spring 2024).
- Parent information sessions:
  - Open House for prospective junior high families (January 2023)
  - Open House series for current Grade 9 students and prospective new high school students and their families (spring 2024).
- School Council meetings; all parents/guardians and community members are welcome to attend (monthly).
- Weekly email updates to families from Principal and classroom teachers.
- Open door policy: concerns from students, parents, and teachers are addressed in a timely and respectful manner.
- Professional growth conversations with staff at least once per school year.
- Superintendent 1:1 discussions with school leadership at least once per year.
- Regular meetings with school-based Administration and our three Directors in STEM, Math and Science (commenced in January 2024).
- Weekly standing faculty meetings brought together our team to better reinforce our collaborative work. This allowed us to come together in varied configurations and for emphasis on different areas of concentration with a rotating four-week schedule that included: full faculty, curriculum, grade level and student learning team.
- Collaborative conversations with STEM Innovation Academy staff and post-secondary partners (University of Calgary, University of Alberta) for high school course planning (ongoing).

STRATEGIC PRIORITIES 2024-2025

STRATEGIC PRIORITY 1

CURRICULUM DEVELOPMENT AND ENHANCEMENT

STEM Collegiate's option programming is developed with support from STEM Innovation Academy in Calgary as well as through consultation and collaboration with industry experts and post-secondary institutions. In January 2024, we provided one of our teachers with partial release time to facilitate and coordinate this work. This ensures our program is cutting edge and relevant to the future that lies ahead for our students. We will also be writing and piloting our own locally developed courses at the high school level. Our core science and math programs will focus on ensuring enhancement and enrichment as led by our two Directors in these subject areas.

STRATEGIC PRIORITY 2

PROGRAM EXPANSION

STEM Collegiate will expand to include Grade 10 (September 2024), Grade 11 (September 2025) and Grade 12 (September 2026). Until plans for a second building are confirmed with Alberta Education, our projected numbers and program expansion will be limited to the student capacity (approximately 525 students) in our current south Edmonton location. Based on enrolment trends from year to year, we anticipate having at least two to three cohorts per grade level.

STRATEGIC PRIORITY 3

LEADERSHIP IN RESEARCH AND INNOVATION

Taking a disciplined and active approach to our research mandate, STEM Collegiate will undertake robust qualitative and qualitative research studies centred on our unique educational programming. We plan to carry out this work both independently and through partnerships with other school authorities. Using empirically sound methods, we will work diligently to fulfill the research mandate that is central to the requirements for all public charter schools in Alberta, including sharing the findings with the educational community and the general public. In addition to our primary objective of strengthening student learning and achievement, STEM Collegiate aims to improve teaching and learning methods, contribute to sustained professional development, refine curriculum design, expand the collective knowledge base (especially in areas related to STEM education) and support educational innovations across the province.

ASSURANCE DOMAINS

Assurance builds trust and helps ensure student success

Alberta's provincial Assurance Framework ensures schools are accountable to the public for student success. The Education Plan plays an integral role in the framework by outlining specific strategies we will implement to achieve the defined measures of success. STEM Collegiate is committed to evidence-based decision-making and the dynamic and iterative process of continuous improvement. Aligned with the core of the Alberta Education Assurance Framework, our work is driven by student achievement and success.

The STEM Collegiate 2024-2027 Education Plan is informed by the goals, outcomes and measures outlined in our approved charter. These elements gain depth and clarity through the integration of the five domains that comprise the Alberta Education Assurance Framework.

In our first year of operation, we have begun the process of collecting data and evidence. This work is ongoing and will be further informed by the results of the Grade 9 Provincial Achievement Tests (PATs) in June 2024. Our first Annual Education Results Report (AERR) in fall 2024 will provide valuable data to further refine our Education Plan moving forward.

CHARTER GOALS

- Students will graduate with superior STEM knowledge, skills, and competencies providing a strong foundation for lifelong learning in a fast-paced global environment.
- Students will have core STEM knowledge and skills needed to become global innovators and problem solvers.
- Students will have the opportunity to connect with post-secondary institutions and industry to provide strong pathways into both from high school.
- Students will be community minded learners who demonstrate courage, resilience, respect, and caring for others.

Assurance in the education system happens when community members and education partners engage across five domains:

- *Student Growth and Achievement;*
- *Teaching and Leading;*
- *Learning Supports;*
- *Governance; and*
- *Local and Societal Context.*

Alberta Education Funding Manual for School Authorities

STUDENT GROWTH AND ACHIEVEMENT

CHARTER GOAL

Students will graduate with superior STEM knowledge, skills, and competencies that provide a strong foundation for lifelong learning in a fast-paced global environment.

OUTCOME

Students will reach their highest academic potential, demonstrating strengths in literacy, numeracy, and digital literacy.

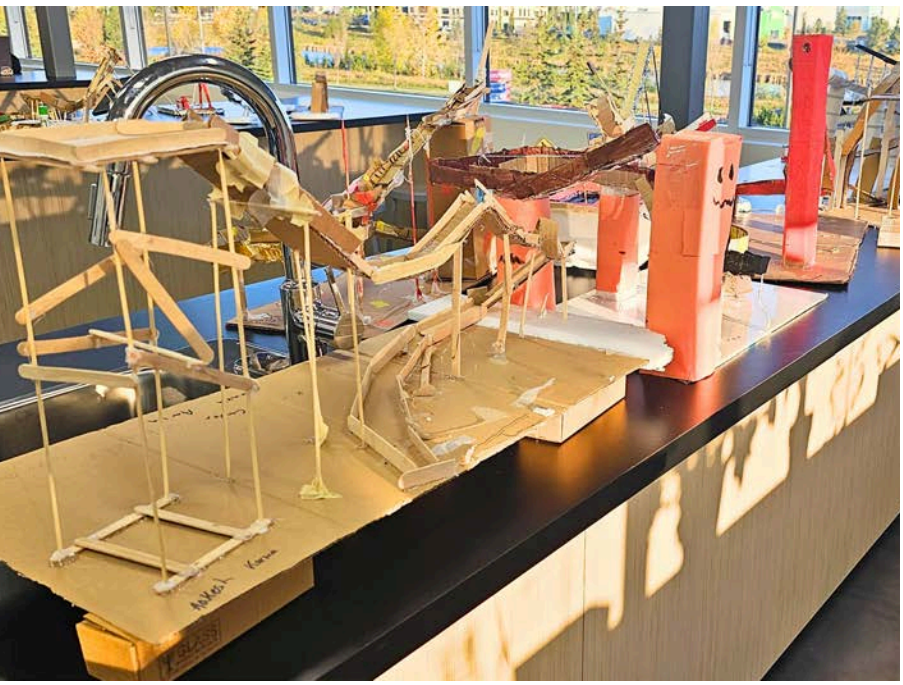
STRATEGIES

- Provide an enriched curriculum in Math and Sciences augmented with opportunities to utilize STEM technology.
- Develop and implement unique option courses to appeal to talented students interested in STEM. These courses are designed to empower students with the foundational skills required to thrive in post-secondary STEM-related programs.
- Facilitate access to emerging technologies, STEM tools and applications. Incorporate guest speakers and industry expertise.
- Work towards creating full-year (10-month) Biology and Math Honours courses for implementation at the Grade 12 level (September 2026).
- Teach and utilize the design process and ensure its visibility in learning spaces.
- Empower students to become digital designers and fabricators in our MIT Fab Lab.
- Administer baseline assessment to all students; classroom teachers will utilize results of individual baseline assessments to inform instruction:
  - Math Screening assessment given to all students (September 2023).
  - Reading Diagnostic assessments (September 2024).
- Track academic progress of each cohort of students in core subjects through use of common summative assessments (e.g., quizzes, unit tests, mid-term and final exams) for all grades.
- Ensure consistent weighting of assessments and assignments through development of common course outlines in Math, Science, English Language Arts and Social Studies in all grades.
- Implement responsive data-driven programming based on identified student needs in academic and/or social-emotional development.
- Initiate collective and coordinated preparation of Grade 9 students for Provincial Achievement Tests in Science, Math, English Language Arts and Social Studies through incremental, meaningful, and thoughtful integration of assessments designed in a similar format to PATs.
- Determine areas of instructional need in Math through use of tailored review materials and tracking system.
- Use PowerTeacher Pro as a learning management system; utilize open gradebooks.
- Highlight Winter Heritage Day celebration of the First Nations, Métis, Inuit and French-Canadian peoples and cultures in Canada.
- Embed Indigenous knowledge, perspectives, and history throughout the social studies curriculum.
- Integrate National Centre for Truth and Reconciliation teaching resources in social studies courses.

STUDENT GROWTH AND ACHIEVEMENT *continued*

MEASURES

- Statistically significant improvement ($p < 0.05$) in Grade 7 Math based on the combined mean score on their Grade 6 Provincial Achievement Test results in Math of this new group of students, as compared with the combined mean score of these students on their Grade 7 final exam in June.
- Quantifiable evidence of an enriched Science program as determined by the percentage of students achieving a score equating to at least half a standard deviation above the provincial mean (z-score of +0.5) on the Grade 9 Provincial Achievement Test in Science.
- Demonstrable individual growth in Math and Science as measured by the percentage of students at each grade level who show improvement between their mid-term report card mark (January) and final report card mark (June).
- Course outline templates for all core subjects in Grades 7-10 completed by June 2026. Completed course outline templates for all core subjects in Grades 11 and 12 by June 2028.
- Data showing strong humanities instruction by comparing individual English Language Arts 30-1 and Social Studies 30-1 diploma exam results (May – June 2027) with school-awarded component to ensure close alignment.



TEACHING AND LEADING

CHARTER GOAL

Students will have core STEM knowledge and skills needed to become global innovators and problem solvers.

OUTCOME

Teachers and leaders will grow in their professional practice to ensure excellence in teaching and continuous improvement in student learning.

STRATEGIES

- Recognize the diverse strengths of our faculty by creating school leadership opportunities aligned with educators' unique areas of curriculum expertise and personal interest.
- Foster collaboration through regular school-based administration and leadership team meetings.
- Provide instructional leadership to mentor teachers through growth, supervision, and evaluation of teaching staff.
- Ensure consistent delivery of curriculum and assessment of learning outcomes for each grade level.
- Make professional learning and innovation visible by documenting and sharing exemplary teaching and learning.
- Implement scheduled opportunities for staff feedback (surveys, fireside chats).
- Recruit and retain teachers with germane post-secondary training (particularly Mathematics, Chemistry, Biology, or Physics) that enables them to teach one or more of our unique STEM options.
- Facilitate school-wide and individual professional development through intentional focus on how to ensure research-based pedagogical practices and increased subject matter knowledge.
- Enhance teaching practices and further develop educator expertise and discipline-specific content knowledge through Friday afternoon and full-day Professional Learning Days.
- Provide professional development funds to staff to improve their practice in areas of pedagogical improvement and subject matter knowledge.
- Support structured Student Learning Team (SLT) process for teachers to access academic and social-emotional supports for students.
- Integrate National Centre for Truth and Reconciliation teaching resources in social studies courses.
- Allocate additional release time for the Director of STEM to coordinate the development, design, and implementation of Grade 7-12 options programming.
- Leverage internal expertise to build staff capacity.
- Offer formal mentorship for new STEM option course instructors and align the school timetable to provide common prep time for first- and second-year teachers, pairing them with experienced colleagues or Directors teaching similar assignments.

TEACHING AND LEADING *continued*

MEASURES

- Data to be provided to the Board each June as to how many teachers, from the total number of teaching staff that school year, taught at least one STEM option and at which grade level(s).
- Numerical data (de-identified) to be shared with the Board each September as to how many teachers hold secondary specializations in which fields of study (majors and minors).
- Provincial Assurance Survey results.
- School survey results.
- Annual qualitative data collected by Superintendent and/or Principal during 1:1 discussions with staff as to whether teachers feel they are supported to grow in their professional practice.
- Financial reporting showing the amount allocated each school year to directly fund school-wide and individual professional development.

LEARNING SUPPORTS

CHARTER GOAL

- Students will be community-minded learners who demonstrate courage, resilience, respect, and caring for others.

OUTCOME

STEM Collegiate will create a culture that supports wellness for students and staff. Every space in our school is safe, caring, welcoming, respectful, and inclusive. Students will be provided regular opportunities to learn and practice what it means to demonstrate courage, resilience, respect, and caring for others.

STRATEGIES

- Establish a robust Student Learning Team (SLT) referral process for teachers to identify learners in need of support.
- Develop a Continuum of Supports for Grades 7-9 and 10-12; PD for staff on provincial and municipal community mental health supports and referral process (Spring 2024).
- Implement interventions for students identified as 'at risk' academically using baseline assessments as part of the SLT process.
- Plan whole-school celebrations to celebrate diversity in our student population (e.g., school-wide multicultural day, frequent opportunities for our diverse student population to showcase cultural celebrations from around the world).
- Develop enriched core programming in Math and Science in consultation and collaboration with curriculum and post-secondary experts (NAIT, Concordia University of Edmonton, University of Alberta, MacEwan University) to ensure our graduates are well-prepared with the requisite foundational skills and knowledge required to be successful in STEM-related post-secondary programs.
- Support and inspire students to pursue future post-secondary programs in STEM fields through provision of specialized services and collaboration with external partners.
- Build student capacity for intercultural understanding, empathy, and mutual respect to advance the Truth and Reconciliation Commission of Canada's Calls to Action.
- Increase Indigenous student enrolment by building awareness of STEM Collegiate programs in Indigenous communities and developing a revised application process to offer priority access to students who self-identify as First Nations, Métis and Inuit.
- Allocate resources to implement a recruitment strategy to attract Indigenous students.
- Increase accessibility to STEM Collegiate programming and ensure that facilities support charter goals through thoughtful capital planning that reflects our commitment to innovation and excellence.
- Provide school-wide OH&S training for staff through PublicSchoolWorks.
- Compile and maintain a comprehensive list of mental health community supports and programs to share with individual families and/or students as needed.

LEARNING SUPPORTS *continued*

MEASURES

- Provincial Assurance Survey results.
- Annual numbers, provided in June, to parents/guardians, staff, and students as to the percentage of students overall who participated in at least one extracurricular club during that school year.
- Annual numbers, provided in June to parents/guardians, staff and students regarding how many extracurricular sports teams were offered that school year and how many students in each grade level were on each team.
- Report to the Board each June as to the opportunities available to students that year to learn about local post-secondary STEM programs and industry/career opportunities in STEM fields.
- Data on the number of staff who completed OH&S training and modules during the 2024-2025 school year.

GOVERNANCE

CONNECTION TO CHARTER GOALS

Governance serves as the overarching framework that ensures collective achievement of all charter goals across all assurance domains.

OUTCOME

STEM Collegiate will be recognized as a well-governed and effectively managed organization.

STRATEGIES

- Set policies and allocate resources to ensure the school is successful in meeting the mandates set out in its approved Charter and to support growth to meet increasing demand for student spaces.
- Cultivate a high-performing school leadership team – Superintendent, Secretary-Treasurer and others as determined by the Board.
- Rigorously assess and approve a budget aligned with school strategic priorities.
- Regularly evaluate learning outcomes.
- Work diligently to bring the Capital Plan to fruition, supporting strategic enrolment growth and availability of school facilities necessary to fulfil the charter vision and mission.
- Update board Policies and Administrative Procedures on a cyclical basis.

MEASURES

- Annual reporting, including Annual Education Results Report, budget, Education Plan and capital plan.
- School survey results.
- End-of-year feedback from School Council executive members.
- Feedback surveys of board governance, including board self-evaluation.
- Provincial Assurance Survey results.

LOCAL AND SOCIETAL CONTEXT

CHARTER GOAL

- Students will have the opportunity to connect with post-secondary institutions and industry to provide strong pathways into both from high school.

OUTCOME

STEM Collegiate will cultivate an effective and engaged network of post-secondary and industry partners to ensure our STEM programming continually evolves to maintain relevance and impact for students.

STRATEGIES

- Organize regular meetings with post-secondary leaders, academics and administrators to ensure our high school options prepare students with the foundational skill requirements to support their entry intro and success in STEM-related post-secondary programs.
- Develop Grade 10-12 option courses in collaboration with STEM experts from industry and post-secondary to ensure content aligns with future career opportunities in Alberta.
- Work with post-secondary institutions to further elaborate programs and pathways.
- Implement a system for tracking student persistence and success in post-secondary STEM fields.
- Continue to refine the Future Ready Speaker Series, inviting experts in a variety of fields and industries that reflect both student interests and external STEM trends.
- Coordinate off-campus site visits to support exploration of career paths and real-world environments in post-secondary institutions and industry.
- Engage School Council members as active ambassadors for STEM Collegiate's growth and success.
- Support student voice and build civic responsibility through establishment of a Student Council.

MEASURES

- Frequency of purposeful and mutually beneficial engagements with post-secondary and industry experts.
- Number of courses co-designed with input from professionals working in STEM fields.
- Student persistence and success in post-secondary STEM fields.
- School survey results.
- Quantitative and qualitative measures from social network tracking tool.
- Digital media analytics.

FINANCIAL INFORMATION

BUDGET

STEM Collegiate's approved Budget for 2023-2024 is available at:

https://stemcollegiate.ca/wp-content/uploads/2024/07/Board-Approved-Budget.pdf

CAPITAL PLAN

STEM Collegiate's Three-Year Capital Plan is available at:

https://stemcollegiate.ca/wp-content/uploads/2024/04/STEM-Collegiate-2025-2028-Three-Year-Capital-Plan-Final.pdf

If you have any questions about the STEM Collegiate budget or capital plan, please contact us via email at info@STEMCollegiate.ca.

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