STEM INNOVATION ACADEMY

Three Year School Capital Plan-2026-2029

March 19, 2025

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Executive Summary

Alberta's public charter schools are an important part of the public system. They fulfill government's commitment to Choice in Education, provide innovative programming, and achieve very high results for students by all relevant measures.

STEM Innovation Academy (STEM) has demonstrated tremendous success in the last 4 years, including opening 3 schools on 90-120 days notice (an unheard-of accomplishment), achieving high academic results as measured by Provincial Achievement Test and Diploma data, and the continued large unmet demand reflected in our waiting lists. We have turned down over 7,000 students in the past 4 years.

Given the threat of tariffs and the resulting impact to Alberta, expanding the capacity of STEM is an important part of growing the science and technology ecosystem. We need more students with the skills, knowledge and attitudes needed to be successful at post-secondary and beyond. Expanding our school capacity would address several directives outlined in the Education's Business Plan, numerous Ministerial Mandate letters, directives of the Premier, and the public commitments of elected officials to support both Choice in Education as well as STEM Education. The *Choice in Education Act* sought to "ensure that Albertans can exercise choice within our strong and diverse school system." Capital investment is required to deliver on the promise of this legislation. Our proposal meets the criteria for evaluating capital projects.

Allocating capital dollars to organizations demonstrating student success and innovative programming tied to Alberta's economic future is an important consideration moving forward. STEM Innovation Academy (is already established as an innovative leader in programming and has hosted a number of other public boards within Alberta and from other provinces who understand what we are offering is not available elsewhere. We know that other public boards are changing their programming to follow our lead – thus demonstrating that any investment in STEM IA will have a multiplier effect.

The lack of options for charter schools to grow is the major barrier to government fulfilling their commitment to improving access to Choice in Education. We have 4 priorities that will help fulfill commitments to growing Choice in Education and will address the high demand parents and students have for our program.

Meeting Government Priorities

Recent government policy directions and financial investments demonstrate the importance of aligning key programming with the future economic interests of the province.

Recognizing that innovation is the future of every industry, there have been several important initiatives government has undertaken to ensure that programming reflects the multitude of outcomes, including the need to further link industry and post-secondaries with grades 7-12

The Career Education Task Force, along with Education's business plan, Ministerial mandate letters and the strategic plans of a number of departments outlines the critical need for a new approach to STEM based education – one tied to industry and post-secondary- and perfectly in alignment with the vision, mission and values of STEM Innovation Academy. A few excerpts (in italics) are noted below:

Hitting the Mark – Alignment with Government Strategic Plans

Examples:

Government of Alberta Strategic Plan

Ministerial Mandate Letters

Education Business Plan

Alberta Infrastructure: Building Forward: Alberta's 20-Year Strategic Capital Plan

Choice in Education Legislation

Career Education Task Force

Mandate Letters – Areas STEM IA contributes to the fulfillment of the Premier's direction:

There are a number of areas where we have achieved or are working towards fulfilling many of the policy directives of government. Below are some highlights:

Education Minister

(*Investing $20 million over 4 years) in promoting career pathways*

Developing more teacher training for career and technology studies.

Ensuring Alberta's educational funding model continues to promote parental choice in education. This includes ensuring that Alberta's public, separate, francophone, charter, independent (private) schools and early childhood services operators and home education systems are all appropriately funded to ensure the highest educational outcomes for students.

Working to significantly increase the number of schools in the communities of greatest need.

Making recommendations on the best way to create an expedited teaching certificate to fast-track instructors of skilled trades and other professions into teaching positions in junior high and high schools.

Assisting each ministry to execute on their mandate to design a ministry-specific job attraction strategy that raises awareness for young Albertans, especially those in grades 9-12, and adults changing careers of the skilled trades and professions available in each economic sector including pathways for education, apprenticeship, and training.

Minister of Advanced Education

Acting as Alberta's lead advocate and champion of the skilled trades and professions to ensure, as early as junior high, that this education track has parity of esteem as a desirable education pathway that will lead to highly rewarding careers.

Minister of Jobs, Economy, and Trade

Working directly with each economic ministry across government, design a ministry specific job-attraction strategy to raise the awareness of young Albertans (aged 16 to 24), and adults changing careers, of the skilled trades and professions available in each economic sector, including pathways for education, apprenticeship, and training.

Minister of Arts, Culture and the Status of Women

Supporting the participation of women in Alberta's economy, including supporting women pursuing careers in science, technology, engineering, and mathematics (STEM) fields.

Minister of Infrastructure

Analyzing the current process for building schools and hospitals with a view to accelerate construction timelines and reduce cost.

Alignment with Government of Alberta Strategic Plan

Expanding STEM IA's footprint aligns with several key provincial objectives:

- **Providing quality education and skills development to Albertans**: STEM IA has already demonstrated innovative programming in strategic STEM areas representing the future of the province. Our program will also "ensure Albertans have the knowledge, skills and competencies needed for family-supporting jobs that contribute to economic recovery, growth and diversification."
- **Building better communities:** The long-term positive effects of youth having the skills, attitudes and knowledge to be successful are well know. Our focus on industry and post-secondary connections ensures students have an understanding of future opportunities they can take advantage of.
- **Attracting investment and growing the economy:** While Calgary continues to attract record venture capital, industry leaders acknowledge there is still a strong need to better align education with the in-demand knowledge and skills needed to drive an innovation and knowledge economy. Our students will take their place as key leaders in an innovation economy after graduation.

Alignment with Education's Business Plan

In the plan are several performance metrics:

Outcome 1:

1.a ***Performance Measure: High school completion rate***

STEM Innovation Academy's students are on track to far exceed the 71.5% target set by the Province based on PAT and early diploma results and high number of high school credits the average student is taking.

1.b ***Performance Measure: High school to post-secondary transition rate***

STEM IA students are on track to far exceed the 35.8% post-secondary transition rate set by the Province based on academic achievement and the high number of high school credits the average student is taking.

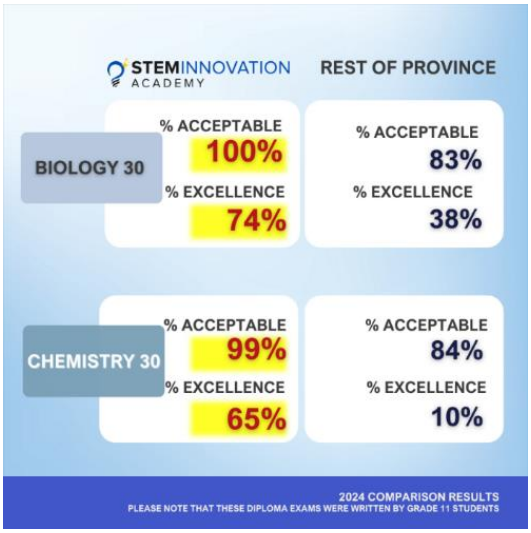
1.c ***Performance Measure: % of students who achieved the acceptable standard.***

2024-25 targets for the province:

Subject	2024-25 targets for the province	STEM Innovation Academy Grade 9 results for 2023-24 school year	Difference
English Language Arts	72%	100	**+28%**
Math	55.3%	100	**+44.7%**

Our overall results were exceptionally strong:

STEM Innovation Academy				
	Authority (Writing)		Provincial Average (Writing)	
	% Acceptable	% Excellence	% Acceptable	% Excellence
Math 9	100	**69**	62	17
English 9	100	**37**	84	14
Science 9	100	**79**	79	24
Social 9	98	**58**	71	19



Outcome 3:

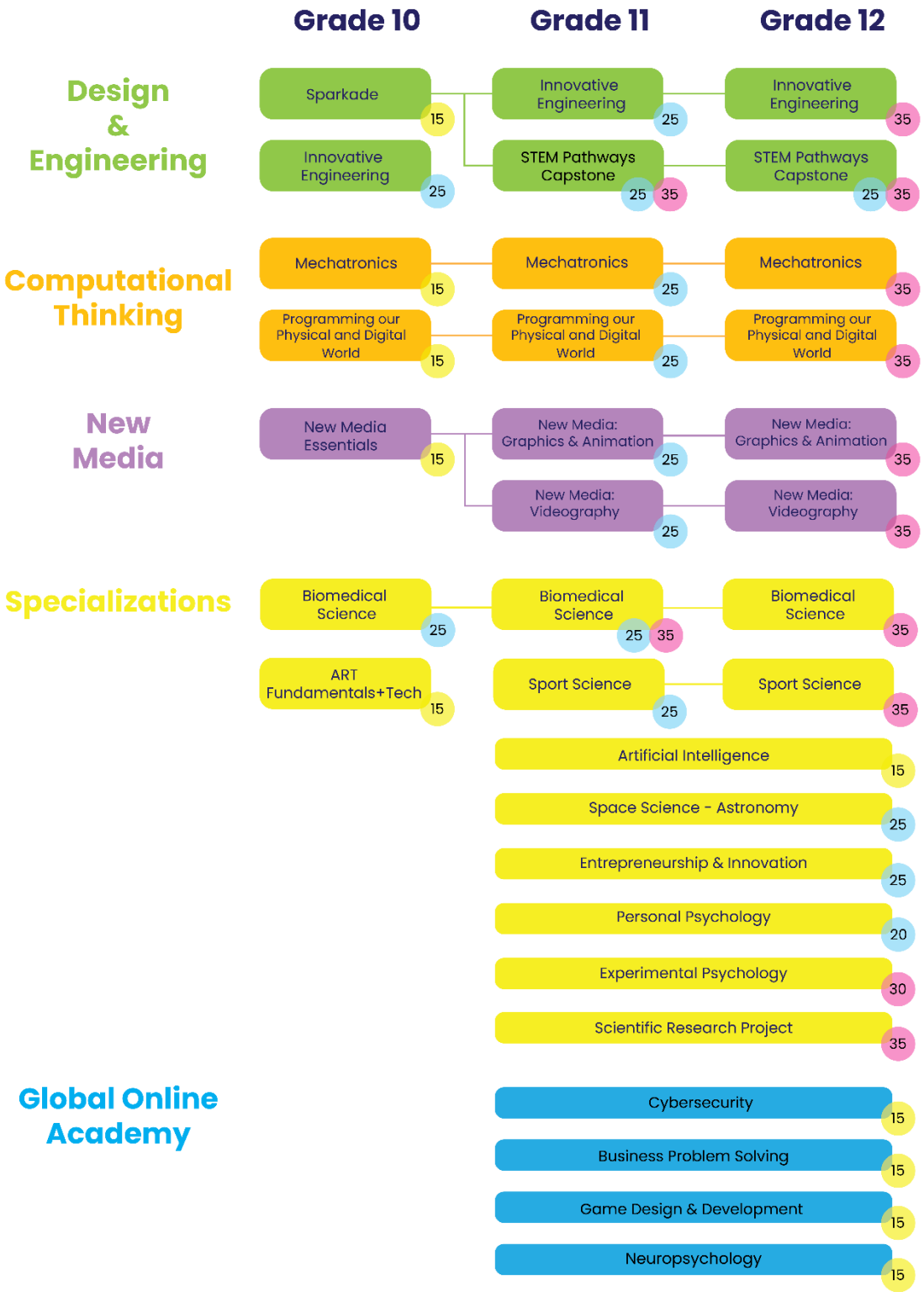
Alberta's students have access to a variety of learning opportunities to enhance competitiveness in the modern economy.

There is no public school offering the breadth and depth of programming we do from grades 7-12. A sample below:

STEM Innovation Academy Junior High Option Courses

Strand	Grade 7	Grade 8 and 9
Design & Engineering	Introduction to Design & Engineering	Architectural Technologies Design and Fabrication Bio-medical Engineering
Computational Thinking	Introduction to Computational Thinking	Robotics Foundations of Video Game Design Creative Computing
New Media	Introduction to New Media	Digital Visual Design Animation Storytelling through Media
Specializations	STEM Communication	PC Remix Experimental Science Exploration

STEM Innovation Academy High School Option Courses



Alignment with Ministry of Infrastructure

In *Building Forward: Alberta's 20-Year Strategic Capital Plan*, the Ministry of Infrastructure offers a vision for capital investments in the education space: "Investments in education pay huge dividends in developing our economy and society. Providing our young people with world-class K-12 education sets them on the right track to be competitive and successful in a changing world. This also leads to strong families and communities, healthy and fulfilled citizens, a creative and entrepreneurial workforce, and a prosperous and resilient Alberta overall."

Synergies with ***Building Forward: Alberta's 20-Year Strategic Capital Plan***

- *Building Forward* recognizes "a future that's going to be filled with technological innovation, profound change and many opportunities" and delineates an infrastructure plan that will "help our communities and our economy adapt, grow and thrive." Supporting schools that can offer both innovative programming, high achievement results, and are connected to industry and post-secondary make this project unique.

Our Program is in High Demand

- When we publicly announced our school in January 2021, we had 800 pre-registrations in a few weeks, despite having no site, no principal, and few details on our courses. In May 2021, we announced our location and opened our doors 3 months later, full with an extensive waiting list.
- In May 2022, we announced our high school and quickly filled all available spaces within 3 weeks.
- In April of 2023, we announced our location at the Hub and filled all available grade 10 spaces we could commit would be finished in time for September.
- In September of 2024, we confirmed the launch of a new junior high school at the Hub and interest quickly exceeded demand.
- In June of 2025, we will have our first grade 12 graduating class – the group that started at the Alistair Ross Technology Building in temporary space for grade 10.
- Our open houses regularly draw 1,000 attendees.

Parent & Student Demand for the Program

We have turned away over 6,000 students who wanted to take our program.

This is a lost opportunity to expose students to cutting edge STEM programing that can impact their future.

Our projected enrolment is as follows:

Grades	2025-26	**2026-27 (with funding)**	**2027-28 (with funding)**	**2028-29 (with funding)**
7-9	**751**	**1051**	**1100**	**1125**
10-12	**925**	**1075**	**1225**	**1375**

Capital Priorities

There are 3 capital priorities:

Description	**Cost**	**Student capacity**	**Rank**
South junior high/high school campus	$40 million for overall project costs	850	1
Modernization at current junior high campus	$4.1 million for various upgrades related to health and safety, upgrading spaces to modern STEM programming needs, upgrades related to turning an aged elementary school into a junior high, addressing the undersized gym.	n/a	2
New Elementary School	$28 million for new construction	3	4

Priority Rank 1: South Junior high/High school campus

Currently our students arrive from all four corners of the city. This means many of them have long bus rides – up to 90 minutes one way. Choice in Education supports normalizing bus rides with other public boards, whose ride times are usually much less.

Crisis coming

There is a crisis coming in south Calgary for high school students. There is no serviced site for public high schools, and there won't be for several years.

We know that South/Southeast Calgary will experience the largest growth according to the City of Calgary's Suburban Development and Growth Plan, followed by North/Northwest

City of Calgary – Growth Trends by Planning Sector	
Planning Sector	Population Growth Forecast
South	25,275
Southeast	16,828
North	25,199
Northwest	6,484

Source: City of Calgary Suburban Residential Growth Report 2023-2027

Based on CBE's 2023 -2024 School Enrolment Report, south high schools are already well over recommended capacities. There is no solution – CBE's south high school site won't be serviced for years, meaning there is no new high school that can be constructed over the next decade. With continued net migration this represents a situation that needs to be addressed urgently.

South Calgary High Schools	2023 WEIGHTED ENROLMENT	2023 PROVINCIAL % UTILIZ.
Centennial High School	1779	122%
Joane Cardinal-Schubert High School	2023	125%
Dr. E.P. Scarlett High School	1758	114%

Source: (CBE) 2023-2024 School Enrolment Report

We know from past public statements that 120% capacity is at or very close to fire code capacity, and there is no opportunity for further student enrolment in existing facilities.

For students where the transportation from deep south to our current high school is an unmanageable barrier, this would offer an important solution. Our goal is to have space for grade 10 students to enter our program from other boards, as we do not believe it desirable that students have to select a STEM focus in grade 6. We recognize the importance of meeting students where they are at and know that many students discover a love of STEM in junior high.

With a south high school location, we could offer the continuum of 7-12 programming, thus building on the foundation we establish in junior high and allowing families to stay together when their children are 3 or more years apart. We know students self-select out of STEM in junior high and providing a 7-12 continuum developed to support interest in STEM and transition to STEM programs in post-secondary meets stated objectives of government in these areas.

The proposal is to lease and renovate up space in an available building. This space could be ready for September 2026, providing critical space for an impending high school space crisis. We would begin offering a grade 7-10 configuration in year 1, adding grade 11 the following year and grade 12 the year after that.

Priority Rank2 – Renovations at the Junior High School

Our current junior high is a former elementary school that is obsolete even by current elementary standards. Turning it into a more functional junior high is important to support our modern programming.

Our current junior high is located in a former Calgary Catholic School District elementary school that is in need of facility improvements due to the age of the building and modernization in order that we may deliver our unique program. The

project scope of the work includes: (a) replace exterior windows and rebuild univents in classrooms to accommodate adequate temperature; (b) installation of blinds in classrooms and offices; (c) upgrade science lab and HIVE to accommodate our unique STEM program; (d) upgrade student bathrooms to best suit junior high students; (e) upgrade classrooms to include removal of dated blackboards and cubbies; (f) paint hallways and classrooms ; (g) outdoor storage facility to accommodate storage of physical education mats and equipment necessary for a junior high program, and (h) repurpose the current too-small gym into a proper maker space for unique programming such as robotics, drones, etc. and build a new gym on the site.

Priority Rank 3 – New elementary School

We have much parent interest in an elementary school program, where we could begin to lay the foundation for a love of STEM and provide the high academic programming that we are known for. We have 1,700 on the waitlist, without doing any advertising or promotion of this new program.

Meeting Evaluation Criteria

Our submission meets the six key criteria for capital planning submissions outlined in Bill 73, the Infrastructure Accountability Act:

- **Align with government priorities and strategies:** Expanding charter school capacity delivers on the promise of Choice in Education for more students and addresses key areas of focus including STEM Education, promoting pathways to post-secondary, educating students about high in-demand careers, providing quality education as noted by academic achievement and high school completion, and supports future economic diversification.

- **Improve program delivery and services:** Our focus on collaborating with industry and post-secondary institutions means an enhanced level of education quality. Our strong academic program and unique options means that more students will have access to programming that is unique in Canada.

- **Enhance the resiliency of communities**: Young Albertans are one of our province's most valuable resources. Our new approaches to learning through STEM education and work- connected learning are ideal to motivate students to consider a broad range of in-demand skills. High-quality schools are critical to successful communities.

- **Foster economic activity and create jobs:** Our program is future ready and illuminates pathways to lucrative careers and entrepreneurial ventures.

- **Consider life cycle costs and return on investment:** Repurposing office space allows new capacity to be brought on 3 years prior to building new. Given the large number of very old schools (50+ years old), building new capacity where there is no ability to renovate existing facilities is a fiscally prudent approach.

- **Address health, safety, and compliance needs:** In past years, charter schools leased old, functionally obsolete schools declared surplus. Investing in a new or renovated facility meets the current health, safety, and wellness standards for schools.

Alignment with Ministry of Treasury Board and Finance

The *Treasury Board and Finance Business Plan 2022-25*, notes that expenditures meet the litmus test of **"supporting Alberta's Recovery Plan and sector strategies, helping create an environment that attracts investment and job creators, removing barriers to job creation, and supporting economic diversification"**. Growth of the STEM IA program presents an investment in the people, places and sectors that will enable Alberta to create robust economic activity.

Conclusion:

The most significant factor restricting the growth of charter schools is the lack of appropriate facilities. As a result, access to charter schools is severely limited and the promise of school choice remains unfulfilled. STEM Education is a key directive in the Ministerial mandate letter – and by supporting our capital requests the Ministry can fulfill many provincial policy directives.

STEM Innovation's exceptional academic success and investment in meaningful leading edge STEM programming aligns with the economic future of the province.