March 22, 2013

Adams County School District 50

Colorado STEM Academy

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Innovation Plan

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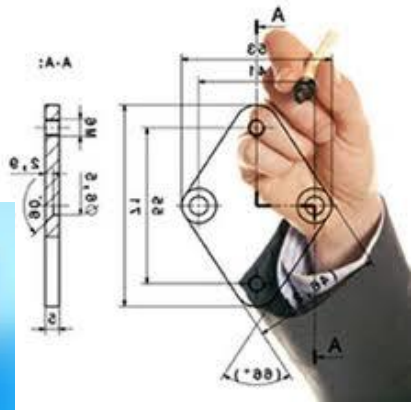
Application to be designated as an Innovation School



Prepared by:

Anthony Matthews
Colorado STEM Academy
Principal

Dr. Charlotte Wolf
Director of Innovation & Reform

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Section I

Statement of the Colorado STEM Academy Mission

Mission

The purpose of Colorado STEM Academy is to increase student achievement and workforce readiness in STEM fields by engaging students in innovative science, technology, engineering and math instruction.

Vision

Colorado STEM Academy will provide a continuous pathway of education through opportunities that will create STEM literate completers ready to accept the challenges of a STEM Academy at Westminster High School, advanced education and the needs of tomorrow's workforce.

STEM Definition

STEM Education is "An interdisciplinary approach to learning where rigorous academic concepts are coupled with real-world lessons as students apply science, technology, engineering and mathematics in context that make connections between school, community, work, and the global enterprise, enabling the development of STEM literacy and with it the ability to compete in the new economy." (Tsupros, N., R. Kohler, and J. Hallinen, 2009. *STEM education: A project to identify the missing components, Intermediate Unit 1 and Carnegie Mellon*, Pennsylvania.)

STEM is not simply science or technology or mathematics or engineering, but a truly integrated approach to these studies. Done right, STEM increases motivation with inquiry-based learning, engages students and encourages them to solve authentic problems, and requires students to collaborate and build real-world solutions.

STEM Goals

- All implementation designs will be based on District 50's Competency-Based System (CBS) model to raise achievement of all students, so that they are prepared for future advancement in STEM education and careers.
- Inspire students in science, technology, engineering, and math by involving them in solving authentic problems, working with others, building real solutions (artifacts), and applying their skills to solve relevant community issues.
- Close the achievement and technical skill gaps between economically disadvantaged students, students of color, and their peers.
- Increase the number and diversity of students who aspire and succeed at the highest levels of academic and technical achievement in these subject areas and related career pathways.

Section II

The Need for Innovation

The Need for Innovation

During the course of our nation's history, education has been seen as the guarantor of a bright future for all its children and for the country. This vision has been undermined by staggering dropout rates in schools across the nation, by plummeting graduation rates here in District 50 (70.5 % graduation rate using a 5 year graduation rate, as per District 50's performance framework, Colorado Department of Education) and by equally dismal achievement gaps between ethnic and socioeconomic subgroups. These alarming trends call into question the notion of education as a great provider of opportunity.

It is apparent that change in public education and more specifically here in Adams County School District 50, is of the essence. Innovation status will provide the flexibility needed to create such change to be implemented in a careful and deliberate manner. Over the past several decades, educational reform has often been confined to what happens in the classroom and within school buildings. With a systemic, Competency-Based reform effort, District 50 has embarked on a journey to change this. Efforts such as these are essential and a first step in the right direction toward reform. With Innovation School status and CBS, a platform would be provided for Colorado STEM Academy to increase the level of rigor and instruction considerably.

Through project-based instructional approaches with engineering experiences integrated across the curriculum and technology use infused in all core and elective courses, Colorado STEM Academy will offer a reform approach that is grounded in research for 21st century learning. This requires autonomy to be able to implement a researched and portfolio-based curriculum in which students participate in challenging, hands-on, project-based learning opportunities that are initiated and fostered by the guided inquiry approach. Innovation status would also allow us to be able to use the building, grounds and community as a teaching and learning lab that enables students to build real solutions (artifacts) and apply their skills to solve relevant community issues.

The restrictions often placed on schools to comply with certain schedules and school year calendars inhibit the flexibility that Colorado STEM Academy needs in order to successfully implement our instructional model. Colorado STEM Academy will utilize a flexible schedule, extended school day and year to allow additional time for project-based learning and high levels of rigor to take place in the community.

Typically, schools are neglecting to look at the "whole" child in terms of long-term success. Student goals are focused solely on academics when research and models of other successful schools (Community of Peace Academy, Minneapolis, MN) tell us that we are missing the boat and losing many students as a result. We will teach and expect students to live up to the Colorado STEM Academy's core values, which are further described throughout this document. They will engage in an intense, integrated curriculum and receive individualized support to ensure mastery of core content areas. Throughout the core curriculum, STEM standards will be integrated using backward design. Personal learning plans (PLP's) addressing the whole child will be developed by students, teachers and parents and then monitored by all.

Currently, the District 50 Master Agreement does not enable Colorado STEM Academy to adhere to our mission and vision. It is imperative that we are able to hire professional staff willing and able to support the mission and vision of Colorado STEM Academy, including working within a flexible schedule and extended school day and year. It also requires the need for us to be able to terminate those who are not in alignment with the mission and vision of the school.

Colorado STEM Academy is a program with a clear vision and mission driven by the needs of our students and community. Colorado STEM Academy will attract families that have chosen to opt out of a traditional school setting by offering a relevant, high quality education for all students. Colorado STEM Academy will respect diversity, expect engagement, and thrive on the very foundation of why public schools were created in this country, to participate in a democratic society and strengthen communities.

Section III

Description of Proposed Innovations

Overview

The purpose of Colorado's Innovation Schools Act is to improve educational performance through greater school autonomy in staffing, scheduling, programming and resource allocation. As we have designed Colorado STEM Academy, we reflected on State statutes, District 50 Board of Education Policies, and articles in the District 50/WEA Master Agreement that may present challenges to our success. Listed below are the proposed innovations, waivers requested, and a rationale for why the waivers were requested.

Innovation: Time and Teaching/Working Conditions

Waivers Requested (see Appendix A for a detailed description of Replacement Policies or Practices):

C.R.S. 22-32-109(1)(n)(I) – Local Board Duties Concerning School Calendar
Waivers from this statute will allow Colorado STEM Academy to use its own method for determining a school calendar.

C.R.S. 22-32-109(1)(n)(II)(A) – Determine Teacher-Pupil Contact Hours
Waivers from this statute will allow Colorado STEM Academy to use its own method for setting teacher-pupil contact hours.

C.R.S. 22-32-109(1)(n)(II)(B) – Adopt District Calendar
Waivers from this statute will allow Colorado STEM Academy to use its own method for determining a school calendar.

C.R.S. 22-32-118 – Summer Schools, Continuation, Evening and Community Education Programs
Waivers from this statute will allow Colorado STEM Academy to use its own method for determining a summer school schedule/school calendar.

District 50 Board of Education Policy GDJ – Payment Schedule, Workweek, and Workday
Waivers from this policy will allow the Innovation School to set payment schedule, workweek, and workday for Educational Support Professionals.

District 50 Board of Education Policy GCHC – Professional Staff Induction
Waivers from this policy will allow Colorado STEM Academy to opt out of District-mandated induction procedures.

District 50 Board of Education Policy GCI – Professional Staff Development Opportunities
Waivers from this policy will allow Colorado STEM Academy to opt out of District-mandated professional development.

District 50 Board of Education Policy IC/ICA – School Year/School Calendar/School Day
Waivers from this policy will allow Colorado STEM Academy to opt out of the District calendar and District recommendations for length of school day.

ESP Agreement, Article 6 – Conflict Resolution
Waivers from this article will allow the Innovation School to opt out from acknowledging Association representation during the entire conflict resolution process.

ESP Agreement, Article 19 – Working Conditions
Waivers from this article will allow the Innovation School to set its own payday schedule, ESP work-week and workday.

Licensed Employees Agreement, Article 6 – Conflict Resolution
Waivers from this article will allow the Innovation School to opt out from acknowledging Association representation during the entire conflict resolution process.

Licensed Employees Agreement, Article 8-1 through 8-23 and 8-25 (except for 8-24 Waivers, which will stay in effect) – Teaching Conditions
Waivers from this article will allow Colorado STEM Academy to use its own method for defining the school year and school day, including teaching hours.

Rationale – Extended Day and Calendar
The Colorado STEM Academy proposal calls for an extended day and an extended calendar. The current Master Agreements for ESP and Licensed Employees with WEA defines the contract year as 185 days, and the workday as an eight (8) hour day. The proposal presented lengthens the student day by an hour, and the school year would be extended by a minimum of (ten) 10 additional days. This design necessitates changes to the definition of a workday/workyear.

Rationale – Planning Time
Our current negotiated agreement defines the number of planning/workdays for teachers and the amount and use of planning time. In our model we seek flexibility in the use of planning time. We believe structured planning time with clear goals/focus (oftentimes directed by the principal) is necessary for teachers to be successful.

Rationale – Teaching Load and Work
The daily schedule has not yet been developed for Colorado STEM Academy. However, we anticipate changes in how teachers provide instruction and in the workload requirements for non-licensed staff. The current Master Agreement for Licensed Employees has provisions regarding the normal number of teaching periods/workload and the normal number of preparations. To fully maximize the staff, we will seek relief from the relevant articles (District 50 Licensed Employee Agreement, Article 8, and ESP Agreement, Article 19) to allow teachers, ESP, and administration to collaboratively determine the best instructional and operational models for the school.

Innovation: Compensation

Waivers Requested (see Appendix A for a detailed description of Replacement Policies or Practices):

C.R.S. 22-32-109(1)(f) – Local Board Duties Concerning Selection of Personnel and Pay
Waivers from this statute will allow Colorado STEM Academy to use its own method for selecting and paying teachers.

C.R.S. 22-63-401 – Teachers Subject to Adopted Salary Schedule
Waivers from this statute will allow Colorado STEM Academy to develop its own compensation system.

C.R.S. 22-63-402 – License and Letter of Authorization Required in Order to Pay Teachers
Waivers from this statute will allow Colorado STEM Academy to adopt its own policy for fair compensation of instructional staff.

C.R.S. 22-63-403 - Payment of Salaries
Waivers from this statute will allow Colorado STEM Academy to adopt its own policy for fair compensation of instructional staff upon dismissal.

ESP Agreement, Article 17 – Compensation
Waivers from this article will allow the Innovation School to set its own payment schedule and workday/workweek for ESP.

Licensed Employees Agreement, Article 3 – Recognition
Waivers from this article will allow the Innovation School to use its own method for negotiating compensation for teaching staff.

Licensed Employees Agreement, Article 34 – Compensation
Waivers from this article will allow the Innovation School to use its own method for determining compensation for teaching staff.

Rationale
To be a teacher at Colorado STEM Academy one must commit to mandatory professional development. A portion of this professional development will take place outside of school time, for example over the summer. The current agreement requires teachers to be compensated at their per diem rate for mandatory training. We wish the flexibility to create our own professional development compensation structure to maximize the budget available (**see page 29**).

To attract and retain quality teachers we are also proposing a "pay for performance" model that will reward teachers based on attainment of identified performance-based indicators of excellence. The current Master Agreement does not allow for this model of compensation. Seeking a waiver concerning compensation will have an impact on the collective bargaining agreements. For the opening of the 2013-

14 school year, we will pay teachers based on District salary tables. Once we are fully staffed and CSA is opened, the staff will collaboratively develop a pay for performance model with performance-based indicators for advancement. After the model is approved and voted on by a majority of the Colorado STEM Academy staff, it will be piloted for the 2014-15 school year and fully implemented for the 2015-16 school year.

Innovation: Employment and Evaluation

Waivers Requested (see Appendix A for a detailed description of Replacement Policies or Practices):

C.R.S. 22-63-201 – Employment – License Required – Exception.
Waivers from this statute will allow Colorado STEM Academy to verify to the District the qualifications of teachers. (In accordance with NCLB requirements, all core content instructional staff employed at Colorado STEM Academy will have a valid teaching license and meet subject matter competency requirements for the teaching subject. It is important for Colorado STEM Academy to be able to dismiss teachers and other staff who are not in alignment with the mission and vision of the school.)

C.R.S. 22-63-202 Contracts in Writing, Duration, and Damage Provision
Waivers from this statute will allow Colorado STEM Academy to issue its own employment offer letters.

C.R.S. 22-63-203 Renewal and Nonrenewal of Employment Contract
Waivers from this statute will allow Colorado STEM Academy to use its own method for determining the conditions for continued employment or termination of licensed staff.

C.R.S. 22-63-206 – Transfer of Teachers
Waivers from this statute will allow Colorado STEM Academy not to have the District transfer teachers into the school.

C.R.S. 22-63-301 – Grounds for Dismissal
Waivers from this statute will allow the Innovation School to set its own policy for dismissal.

C.R.S. 22-63-302 – Procedure for Dismissal
Waivers from this statute will allow the Innovation School to develop its own procedure for dismissal.

C.R.S. 22-9-106(4)(a) – Local Board Duties Concerning Performance Evaluations for Licensed Personnel
Waivers from this requirement would allow Colorado STEM Academy to have a non-licensed administrator or designee conduct evaluations in alignment with the district evaluation system.

C.R.S. 22-32-110(1)(h) – Local Board Powers Concerning Employment Termination of School Personnel
Waivers from this statute will allow Colorado STEM Academy to use its own method for terminating school personnel.

ESP Agreement, Article 7 – Transfers
Waivers from this article will allow the Innovation School to opt out of District procedures for transfer of non-licensed staff.

District 50 Board of Education Policies GCE/GCF – Professional and ESP Staff Recruiting
Waivers from this policy will allow Colorado STEM Academy to develop its own procedures for recruiting, hiring, and appointing candidates to open positions.

District 50 Board of Education Policy GCF - Professional Staff Assignments and Transfers
Waivers from this policy will allow Colorado STEM Academy to opt out of voluntary and involuntary transfers.

District 50 Board of Education Policy GCJ – Professional and ESP Staff Recruiting
Waivers from this policy will allow Colorado STEM Academy to select teaching staff directly.

District 50 Board of Education Policy GDE/GDF – ESP Recruiting, Posting, and Hiring
Waivers from this policy will allow the Innovation School to select non-teaching staff directly and meet or exceed the requirements for the selection process utilized by the District.

Licensed Employees Agreement, Article 6 – Grievance Procedure
Waivers from this article will allow the Innovation School to use its own method for resolving grievances.

Licensed Employees Agreement, Article 9 – Right to Representation/Discipline
Waivers from the article will allow the Innovation School to add its own standards for disciplinary actions and opt out of the requirement of Association representation at disciplinary conferences.

Licensed Employees Agreement, Article 7 – Transfer Options
Waivers from this article will allow Colorado STEM Academy to opt out of the District's established practices of transferring teachers and inter-school postings.

Licensed Employees Agreement, Article 10 – Teacher Exchange
Waivers from this article will allow Colorado STEM Academy to opt out of the teacher exchange program with teachers from other District schools.

Licensed Employees Agreement, Article 12 – Teacher Evaluation
Waivers from this article will allow Colorado STEM Academy to permit staff without an administrative license to evaluate teachers.

Rationale – Hiring & Termination
Currently, the Licensed Employee and the ESP Agreements do not enable Colorado STEM Academy to adhere to its mission and vision. It is imperative that CSA is able to hire professional staff willing and able to support its mission and vision, including adopting its own hiring and termination policies and

procedures. In accordance with NCLB requirements, all core content instructional staff employed at Colorado STEM Academy will have a valid teaching license and meet subject matter competency requirements for the teaching subject. It is important for Colorado STEM Academy to be able to dismiss teachers and other staff who are not in alignment with the mission and vision of the school.

Rationale – Evaluation

At this time, Colorado STEM Academy will follow the District approved evaluation system/plan. Once all teachers have been hired, we will collaboratively develop a suitable replacement plan and may seek a waiver for a new system of evaluation at that time. Colorado STEM Academy will seek a waiver from the requirement for a licensed principal conducting the evaluations in order to pursue flexibility and greater input from building leadership besides the principal, such as an Instructional Coach or other teachers in leadership positions. We are confident that this will strengthen the instructional team and help build leadership capacity among teachers.

Section IV

List of Programs & Policies Affected by the Innovations

Overview

According to the World Economic Forum's most recent report on Global Competitiveness released in fall 2012, "the United States continues the decline that began a few years ago, falling two more positions to take 7th place this year." (*The Global Competitiveness Report* 2012-2013, p. 21). Despite declining in the overall ranking, the report indicates the nation's "companies are highly sophisticated and innovative, supported by an excellent university system." To remain a global leader in innovation the nation must continue to harness the creativity and dynamism of a new generation. In his opening remarks to the Change the Equation initiative, a CEO-led effort to improve education, President Obama stated, "leadership tomorrow depends on how we educate our students today — especially in science, technology, engineering and math."

District 50 recognizes that in order to prepare our students with the skills and knowledge needed to be successful in leading tomorrow's innovations; we must reorganize our instructional programs today. The Board of Education has, through their leadership, made the commitment to our students' future by investing in the development of a science, technology, engineering, and math (STEM) program. The proposal contained herein outlines the vision, program focus, and rationale for the instructional approach presented.

A Rationale for Moving Ahead

The critical success of any programming depends on clearly identifying the issue(s) to be addressed by the proposed model. Do we have a justifiable case for investing our human and fiscal resources into the development of a STEM school? In reviewing the CSAP/TCAP scores in science for District 50, it is evident our students are not prepared for the challenges and demands of the 21st century workplace. As **Table 1** indicates our students have consistently performed in the lowest quartile for every grade level tested in science.

Table 1

District 50: Percentage Proficient and Advanced Performance on Science CSAP compared to State

		2008	2009	2010	2011	2012
District 50	5th Grade	17	21	20	20	27
Colorado		44	45	47	47	49
District 50	8th Grade	28	30	19	20	21
Colorado		46	49	48	49	49
District 50	10th Grade	28	24	21	16	20
Colorado		47	50	47	47	49

As a point of comparison **Table 2** illustrates our math scores for the same grade levels.

Table 2

District 50: Percentage Proficient and Advanced Performance on Math CSAP compared to State

		2008	2009	2010	2011	2012
District 50	5th Grade	42	42	41	47	47
Colorado		65	63	66	66	64
District 50	8th Grade	23	24	20	17	23
Colorado		47	50	51	51	52
District 50	10th Grade	10	8	5	6	7
Colorado		30	30	30	32	33

The 2012 ACT Math scores for our 11th grade students indicate our students will struggle with admissions to most institutions of higher education in Colorado. **Table 3** highlights the average ACT math score for the District and the average score for the lowest 25% of students accepted by select Colorado colleges and universities.

Table 3

2012 District 50 Average Math Score (ACT) and Average Score of Students in Lowest 25% Admitted to Select Colorado Institutions of Higher Education

District 50	CU/Boulder	CSU	DU	UNC	Mines	Adams State
16.4	23	21	25	18	27	16

As Colorado is a choice state, allowing families the opportunity to cross district boundaries for educational opportunities, we must be aware of competition in the marketplace that may be attracting our students away from the District due to our lack of performance in the areas of math and science. STEM programming has already been implemented in the following districts: Denver, Adams 12, Jefferson County, Boulder, Mapleton, Aurora, Douglas County, and Brighton. District 50 can regain educational competitiveness and increase student preparedness for the 21st century workplace through the implementation of a STEM program.

Target Population and Students Served

In approaching the design for a STEM school, staff evaluated what would position the program to best meet the needs of our students and community. As STEM is an interdisciplinary approach to learning coupling rigorous academic concepts with real-world lessons, we propose the school support 3rd – 8th grade. Students entering the school at 3rd grade will need to demonstrate proficiency, or near proficiency, in literacy and math by the end of 2nd grade. We believe by setting entrance requirements we will:

- Create a sense of competition across the District for our students to perform at higher levels.
- Signal to our families the unique nature of the program.

- Allow the school to focus on the development of science, technology, engineering and math skills without a need for remediation in literacy.

As the proposed design requires an application process, a traditional neighborhood school with defined attendance boundaries is not what is needed. We believe the STEM school should be a magnet school, drawing students from within and outside of the District. Colorado STEM Academy will be accepting students on an equal opportunity basis, including economically, linguistically, and ethnically diverse students. The school will meet all IDEA requirements in order to be in full compliance with federal, state, and district requirements. To benefit fully from the instructional programming at the school, we propose a three-phase roll-out as outlined in **Table 4**. Additionally, to capitalize on the choice option available to Colorado families, we propose reserving up to 60% of the enrollment for the approximately 2,700 in-District students currently choosing to go elsewhere for educational opportunities and/or for out-of-District families.

Table 4

Proposed Grade Level Roll-Out

School Year	Grade Levels	Number of Sections/Grade Level	Total Enrollment	In-District Enrollment	Enrolled Outside of District*
2013-14	3rd – 6th	2	200	80	120
2014-15	3rd – 7th	2	250	100	150
2015-16	3rd – 8th	2	300	120	180

*(*Represents both in-District students not currently enrolled in the District and students residing outside the District.)*

In addition to the minimum achievement targets set for admission, there is the expectation that families, students, and the school will work in equal partnerships to help each student reach his or her potential. Parents must commit to volunteer a yet to be determined amount of time to the school. This may be through service on school committees or organizations, in the classrooms, or through participation in field studies. Parents are also expected to monitor homework assignments and regularly communicate with the school regarding assignments on which their child is struggling.

Description of Colorado STEM Academy

Colorado STEM Academy will focus on science, technology, engineering, and mathematics. The students will receive a rigorous, well-rounded education with a problem-based instructional approach. Early engineering experiences will be integrated across the curriculum; technology use and training will be infused in all core and elective courses.

The school will be designed for students who like challenges and investigating the world around them. Teachers will use problem-based instruction to deliver an innovative, hands-on curriculum. Instruction will center learning on science, technology, engineering, and mathematics, as they impact the real world. The engineering curriculum will allow students to work on design and construction projects that integrate their math, science, technology and communication skills.

Colorado STEM Academy will serve as a pipeline for Project Lead the Way at Westminster High School in Bio-Medical Science and Engineering.

Content Focus and Theme *(Features of Colorado STEM Academy)*

- STEM curriculum for 3rd – 8th grade (designed and developed by staff).
- Problem-based instruction with an emphasis on creative thinking in all academic coursework.
- District 50 Instructional Model reflective of 21st century skills.
- University partnerships that provide STEM preparation and professional development for teachers, parents and support staff.
- An interdisciplinary approach to curriculum developing students' understanding of STEM concepts.
- Participation in extracurricular and co-curricular activities expanding learning opportunities in the STEM fields.
- Industry and business partnerships to ensure authentic, hands-on learning opportunities.

University Partners *(University Partners will provide opportunities for)*

- Specific training and coursework that results in initial certification in STEM content areas for future teachers.
- On-going STEM professional development for teachers and staff.
- Mentorships between university students and STEM students, i.e., 3rd – 8th grade.
- Practicum work for university students working towards a STEM certification.
- Assisting teachers in the development and implementation of STEM units of inquiry.

FOSS Science Delivery

- The objective of FOSS is to deliver a comprehensive hands-on science education program that will lead to measurable impacts on: 1) science knowledge and skills among students and their teachers 2) sustained changes in formal science education curricula and higher teacher confidence levels in science instruction.

Research (National Science Board)

- STEM education is one of the U.S. Department of Education's priorities reflected in the *Race to the Top* agenda.
- In a letter to President Obama, the National Science Board made the following recommendations:
    - The earlier children are exposed to STEM concepts, the more likely they are to be comfortable applying such concepts later in life.
    - STEM core concepts and ideas should be included in early education programs.
    - Improving the extent and quality of elementary STEM education should become a national priority.
    - The President should exercise his leadership often and intensely to motivate parents and other members of the community to support these goals.

It is our responsibility as educators to ensure that our children are prepared to lead our country in the 21st century and compete in the global marketplace. In order to do that, we need to provide our children with an education that includes a solid foundation in science, technology, engineering, and mathematics (STEM). We also need to encourage the students of today to pursue careers in STEM related fields. The cost for not addressing this challenge is too high for our country to ignore. *(State Educational Technology Director's Association, September 2008)*

Model Sites for STEM Schools

The Mabel Hoggard Math and Science Magnet School, Las Vegas (K-5)
http://peffer.wix.com/hoggard1

The STEM School at Lexington Park Elementary School, Maryland (4 – 12)
http://schools.smcps.org/lpes/stem-academy

Harmony STEM Schools, Houston and Austin, Texas (K-12)
http://harmonytx.org/schools/

STEM School Academy, Highlands Ranch, CO
http://www.stemhigh.org/home

STEM Magnet Lab School, Northglenn, CO
http://stem.adams12.org/

School Accountability Structure

The Leadership Team will work with the members of the school Governance Committee. The leadership team will include a school administrator, STEM content leaders, and level leaders. The decision-making model will support shared leadership for the school and collective accountability. The leadership team, led by the principal of the school, will ensure that the staff meets the demands of the STEM training model. This will include building on the strengths and talents of the staff, and train staff to develop STEM expertise.

Colorado STEM Academy Leadership Team

The school leadership team will consist of the following stakeholders:

Principal

- The principal will have extensive knowledge of STEM and certification in at least one STEM content area.

STEM Level Leaders 3rd – 5th grade

- One teacher from each competency level for development of problem-based projects and collaborative decision-making.

STEM Content Area Leaders 6th – 8th grade

- One teacher from each content area for development of problem-based projects and collaborative decision-making.

STEM Coordinator/Literacy Coach

- The STEM Coordinator/Literacy Coach will coordinate professional development and support teachers in the classroom. In addition, he or she will assist teachers with curriculum mapping and the development of units of inquiry.

Technology Education Teacher

- Will implement ITEEA (International Technology and Engineering Educators Association) standards that will guide students and parents in the design/build process of problem-based learning. He or she will train students, parents and staff in the use and integration of technology across content areas.

School Governance Committee

A Governance Committee for Colorado STEM Academy will be established to help guide instruction and hold all stakeholders accountable. Membership on this committee will include a STEM industry partner, higher education partner, as well as the principal and educators with expertise in curriculum development, teaching, administration, and finance. Parent and student representation is essential for the committee. The committee's primary role will be to provide guidance in the accomplishment of the school's stated vision, monitoring of the School Accountability Plan, which will be our Unified Improvement Plan (UIP) and annual approval of the school budget.

Parent Leadership Development

As partners in education, parents will be active participants and valued partners in STEM education. They will be expected to attend and participate in PTA meetings or activities and serve as PTA leaders and/or members. In addition, all parents will have opportunities to participate in the school science fair, math night, family literacy nights, technology night, fundraising opportunities, art and engineering exhibits and various extended day options. Parents will also have workshops and other opportunities to develop their background in STEM content.

Student Leadership

Students will participate in the STEM Student Government Association. Each grade level will have two representatives who will make recommendations to the governance team on behalf of the student body. These students will make recommendations on behalf of the student body for curriculum-related activities, projects, field trips and events that support their learning in STEM areas.

Curriculum & Instruction

Curriculum Design (Course of Study)

STEM teachers will center student learning on strong literacy skills while building students' understanding of rigorous content in the areas of science, technology, engineering and mathematics. Student centered instruction will be inquiry-based. Students will learn to think and solve problems as

scientists, technologists, mathematicians, and engineers. Colorado STEM Academy is adopting standards that are aligned with CAS, for all content areas.

Each level will develop and use a course overview, which will provide the scope and focus of instruction. Learning outcomes will be aligned with specific Colorado Academic Standards (CAS) and will be articulated in the course overviews. Teachers will integrate math, science, social studies, engineering and technology into units of inquiry. Progress in these units of study will be measured through the use of performance-based formative assessments and summative, content specific assessments. Learning goals will be carefully aligned with Westminster High School Project Lead the Way curriculum with the goal of adequately preparing students to continue their STEM education.

STEM Exploratory Program for 3rd Grade

Students in the STEM Exploratory Program will focus on developing strong mathematics and literacy skills, which are necessary for achievement in STEM areas. Instruction in 3rd grade will introduce students to the inquiry process, problem solving and critical thinking across all content areas.

STEM 4th and 5th Grade

- Math and science, taught as combined double period class using Competency-Based System curriculum.
- Technology will be integrated with math, science and engineering activities. In addition to technology as part of learning in the core areas, technology literacy goals will be taught and assessed through Engineering by Design technology curriculum.
- The literacy curriculum will emphasize the use of non-fiction reading in the content areas.
- STEM classes will be interdisciplinary and inquiry-based and will provide extensive opportunities for project-based learning.
- Students will participate in the District Science Fair.
- Technology will be used for intervention and enrichment opportunities.

STEM 6th – 8th Grade

- Students will solve problems using Algebra and Geometry.
- Competency-Based curricula will be used in all areas of instruction.
- Students will be prepared for Project Lead the Way and STEM at the high school level.
- Students will have extensive laboratory experiences using the most contemporary technologies for scientific inquiry, mathematical calculation, engineering design and problem-solving techniques.
- Extensive use of technology will be used in all classes as well as electronic presentations.
- Curricula will integrate analytical reading and technical writing skills development.
- Intensive communication assignments designed to refine verbal and visual communication abilities.
- Science fair participation at all levels.
- Participation in nationally recognized academic and engineering competitions TSA (Technology Student Association).

Pedagogical Approach & Classroom Design

Effective teaching starts with classroom strategies grounded in solid pedagogy. Effective STEM teaching challenges students to innovate and invent while integrating math, science and technology concepts

with other subject areas. Teachers will learn how to use inquiry-based methods and STEM teaching strategies to engage students and encourage a student-centered learning environment.

Support for Teachers with School-Based Professional Development

- Develop interdisciplinary curriculum that focuses on essential questions and learning outcomes aligned with CAS.
- Identify and plan specific hands-on activities in each STEM area for each level.
- Organize and facilitate project-based learning as part of daily instruction.
- Design and guide "mini-capstone" community-based projects at each grade level. Capstones will support the STEM school vision by linking learning in school to the greater Westminster Community.
- Use a variety of strategies and settings that identify and accommodate individual learning styles and engage students in experiential learning.

Core Literacy Program

The core literacy program will be a balanced literacy approach along with all current District programs. In preparation for STEM, students will use challenging, authentic text materials and will read both fiction and non-fiction, with an emphasis on non-fiction text in STEM content areas.

The District is also looking at new literacy programs that will align with the Colorado Academic Standards (CAS).

Small group instruction will be provided to students who require reading intervention in 3rd – 5th grade.

Core Math Program

The core math program will be aligned with Colorado Academic Standards (CAS) and will be implemented for the 2013/2014 school year.

Grades 3rd – 8th Progressive Math Initiative (PMI) provides an interactive common core math program with strong links to science learning. The program includes supportive reading material and gives students the opportunity to be actively engaged in their math learning.
(See also, *Progressive Science Initiative*. http://njctl.org/what-is-psi-pmi/)

Core Science Program (*FOSS Science Delivery)*

The objective of FOSS is to deliver a comprehensive hands-on science education program that will lead to measurable impact on:

- Science knowledge and skills among students and their teachers.
- Sustained changes in formal science education curricula.
- Higher teacher confidence levels in science instruction.

The core science program will include a strong literacy component as well as daily opportunities for discovery and inquiry through experimentation and projects. All students will receive instruction that is aligned with the learning goals and standards. Learning will be hands-on and project-based within the classrooms and the school will be equipped with laboratories for experiments.

3rd – 8th Grade

In order to maintain a focus on reading and to integrate literacy into science instruction, students in the elementary grades will use FOSS leveled science readers along with kit-based units of inquiry. The science program will provide:

- Inquiry-rich content with scaffold inquiry activities.
- Cross-curricular connections that link reading and science skills in every chapter.
- Leveled readers for differentiated instruction written to ensure multiple comprehensions needs to meet students where they are developmentally.

Ethics Coursework

Teachers will emphasize ethics in science at all grade levels. Teachers will be expected to identify topics and learning outcomes at each level, and implement their ethics curriculum using outlined curriculum. Students in 7th and 8th grade will complete an ethics project for their capstone portfolio.

Core Engineering Program 3rd – 5th Grade

Engineering is Elementary (EiE) is one of the first engineering curricula in the United States designed for elementary school-aged children. A global studies curriculum incorporates engineering and science inquiry with regional case studies. Developed by educators with the Museum of Science's National Center for Technological Literacy Integrated Science Labs ® (National Center for Technological Literacy, NCTL http://nctl.org), the focus is to enhance society's knowledge of engineering and technology. They describe the fields in this way:

- Scientists investigate the natural world and generate scientific knowledge using the scientific method.
- Technologies are the products and processes created by engineers who apply mathematics and science knowledge. Almost everything made by humans to meet a need is a technology, e.g., a telephone, a drainage system, a bridge.
- Engineers typically find solutions for societal problems. Engineers create the designs and instruments used daily, based on what scientists have found.
- Engineering entails design and problem solving under constraints, such as project goals, budget, deadlines, and the limits of knowledge itself. Both scientists and engineers deal with society's needs and values, the environment and the economy.

Core Engineering Program 6th – 8th Grade

Project Lead the Way's Gateway to Technology (GTT) is a pre-engineering program that provides curriculum and support to middle schools nationwide. The goal is to help students interested in engineering make the transition into high school and college engineering programs. The program is divided into five independent nine-week courses developed for 6th – 8th grade. GTT is taught in conjunction with a rigorous academic curriculum and is designed to challenge and engage the natural curiosity of students.

Core Social Studies Program

STEM social studies curriculum will offer a balance of case study learning related to current societal issues and studies of essential core knowledge. The curriculum will be based on the Colorado Social Studies Framework.

World Languages (Spanish)

Foreign language fluency is a significant asset for job seekers, in view of the fact that more and more companies trade internationally. After Mandarin Chinese and English, Spanish is the world's third most spoken language and ranks second in terms of native speakers, with almost 500 million people worldwide. Spanish is the second most used language in international communication, and an official language of the United Nations and its organizations. Approximately one of every ten United States residents is a native Spanish speaker. In District 50, a majority of students have a Spanish-speaking background.

As a Romanic language, Spanish is closely related to Latin. Though Latin is not necessarily the language most used in science, it is definitely the language of health sciences. Moreover, many words that we use in day-to-day conversations in English derive from words in Latin. For Spanish speakers, many of these words are therefore easy to learn and retain.

Arts Program

According to the National Science Foundation (NSF), the great scientific and technological breakthroughs are expected at the intersection of disciplines, with the arts playing a key role. Art curriculum will include technology and design engineering mediums. As a matter of fact, STEM and arts are two sides of the same coin, with STEM representing the knowledge, tools and processes to invent the future, and the arts providing us with our humanity. The two are inseparable.

At Colorado STEM Academy, we have a strong understanding of how STEM and the arts complement and balance each other. Students will use CAD/CAM programs to investigate the art of design engineering. Traditional art instruction will be blended into the curriculum to ensure a solid understanding of essential art concepts. Units of study will include scientific illustration, modeling, modern and classic elements of design, videography and photography. Career paths and training related to technology and engineering will be included in teaching.

Music

Music curriculum will include technology-based music instruction. Students will work in a computer lab to write, compose, develop and produce a wide variety of music. Student produced music will be shared through electronic and traditional means.

Exercise Science

The STEM school will provide a high quality exercise science program that provides physical education learning, health and wellness programs. Health education, including anatomy and physiology, will be included within exercise science curriculum. Health curriculum will use *The Great Body Shop Curriculum* to embed non-fiction reading into the exercise science/health courses.

English Language Learner Support

English Language Learners will be supported through the implementation of the Sheltered Instruction Approach. Students will be guided to construct meaning by scaffolding the instruction starting at the instructional level of each student. The students will have the opportunity to demonstrate understanding of concepts and skills through different assessments such as:

- Hands on activities
- Group tasks or projects
- Performance-based assessments

Instructional Technology

Technology will have a dual function at the STEM school. Technology will support learning in STEM classrooms as a tool for teaching and learning. Technology will also function as a separate subject with specific technology goals established at each grade level. This dual approach supports the understanding that technology offers students access to current and developing information, tools for visualizing and modeling, data collection, data analysis and emerging communication of ideas.

Within each classroom, teachers and students will use:

- Interactive white boards for classroom instruction and presentations.
- Mobile computer devices for research, communication and learning activities.
- STEM online resources for content area reinforcement.
- Three-Dimensional CAD software to enhance mathematics and engineering curricula for students in the upper grades.
- Kindle digital books to support literacy.
- Digital data collection equipment such as thermometers, probes and microscopes for scientific investigations and inquiry.
- Video conferencing and virtual fieldtrips to maximize students' exposure to STEM-related points of interest.
- Virtual learning including learning blogs, MIT courseware, Wiki, educational forums and digital learning communities.

Homework Expectations

- Homework experiences will support and extend classroom learning. Students will engage in activities and independent practice. Technology will enhance the flow of information between families and the STEM learning community. Educate, a computer/web based program, will provide families access to detailed information on projects and levels.

Learning Outcomes & Assessment Design

Assessment Design:

Learning will be measured through the systematic use of school wide STEM rubrics and a detailed, STEM Competency-Based report card.

Report cards will reflect three criteria; all reflective of course and level specific learning:

- **Product Criteria**: What students need to know and be able to do at each level (i.e. standards and STEM based content knowledge).
- **Process Criteria**: How students are doing related to their efforts and behavior (i.e. how students are developing their 21st century skills and as citizens).
- **Progress Criteria**: How far students have come from where they were at the beginning of the learning experience or unit of study (i.e., how quickly are students progressing towards goals and what growth can we measure).

Rubrics will reflect STEM project-based learning and performance assessments that are essential at all levels. School wide rubrics will be developed by students and teachers for all project-based learning experiences. Rubrics will reflect clear expectations for both students and parents. Data from rubrics will be collected and shared with stakeholders.

Students will be required to use rubrics to measure their own progress toward meeting assignment goals. All students will help in the design of rubrics for projects and performance assessments. Benchmarks for adequate achievement will be established and communicated regularly to Colorado STEM Academy families. School improvement goals will be directly linked to measurable data from school wide rubrics.

Student progress will be measured by:

- Student achievement on state assessments
- Performance assessments in all STEM areas
- Curriculum embedded performance tasks
- Team collaboration/leadership skills
- Participation in extra-curricular STEM activities/competitions (TSA)
- Capstone community projects: specific to each level
- Scantron assessments.

Students are expected to work in partnerships, teams and independently on a variety of STEM projects that demonstrate their mastery of STEM subjects at each level.

Performance Benchmarks

- STEM students will maintain a showcase portfolio of activities and projects demonstrating skills and competencies reflective of the benchmarks provided by the State of Colorado with an emphasis on the STEM fields. Comprehensive guidelines and school wide rubrics will be used to guide this process. These projects will be presented to parents during student-led parent conferences.
- Students in 8th grade will complete a capstone project as part of their culminating upper elementary school experience. Capstone projects will be presented to an authentic audience, including high school students, community partners, other students, staff and university partners.

Teacher Capacity

***Theme*-Specific Certification Requirements**

- All STEM teachers will participate in training that accomplishes two goals: to establish a solid base of understanding in all STEM areas, and to develop an area of expertise in one STEM content area. Teachers will be expected to make continued investments in STEM teacher professional development.
- To build capacity in the STEM areas, teachers will participate in additional professional development in their selected area of expertise. After completing their training, teachers will become part of a STEM Expert Team (i.e. four teams, one in science, technology, engineering and math). STEM Expert Teams will collaborate on curriculum, professional development, data, assessment of their content area and school improvement planning under the guidance of the STEM Coordinator. Teachers may select to rotate through teams from year to year. Each STEM Expert Team will have a designated STEM team leader that will serve as representative on the leadership team.
- The school will align the hiring process and subsequent professional development to ensure that the skills of new teachers can meet the goals of Colorado STEM Academy.

Training and Professional Development Program

A mandatory two-week Pre-STEM Service School will be developed for the summer preceding the school's opening. The purpose is to familiarize all teachers with STEM school expectations and vision of the school. Some topics covered during this time are listed below.

- 3^{rd} – 8^{th} grade curriculum mapping
- Classroom organization and expectations for inquiry-based learning
- STEM learning options and opportunities for teachers

All teachers must be willing to extend their knowledge of the STEM content areas through:

- Professional development
- Summer training and coursework
- Teacher workshops
- Action research projects
- Teacher externships and partner visits

Table 5

Innovation Programming Cost – Instructional Staff paid at District approved base per-diem rate ($218.91 for 20 extra days)

Staff receiving pay	Number of days	Description of event	Cost
11 CSA Instructional Staff	20 days @ $218.91 = $4378.20 + 788.08 benefits = 5166.28 per staff	Extended learning and enrichment time for students: Professional and curriculum development for staff	11 Staff x $5166.28 = Total Cost **$56,829.08**

Table 6
Sample Colorado STEM Academy Teacher Training Program

Type of Training	Attendance	Description
On-Site Professional Development	Mandatory	This training will target the needs of the entire staff as indicated by classroom walk-through, observations and evaluations. It will be differentiated in order to meet the varied learning needs and goals of staff.
Summer STEM School	Mandatory	This school will provide opportunities for new learning and curriculum development. A portion of this training may be presented off-site through grant opportunities.
College Coursework	Strongly Suggested	The coursework needed to complete certification in STEM content areas will be identified in each teacher's personal learning plan.
Project Lead the Way's Gateway to Technology (PLTW)	6^{th} – 8^{th} Grade Staff and Technology Education Teacher	Professional development for teachers and engineering curriculum for students in 6^{th} – 8^{th} grade. **Gateway to Technology** is a pre-engineering program that provides curriculum and support to middle schools nationwide. PLTW also provides teacher training through summer training institutes and on-going professional development in conjunction with state affiliate colleges and universities.

Teacher Personal Learning Plan

Each teacher will use a Personal Learning Plan to address his/her own learning and professional development needs as they relate to improved student learning. Teachers will be expected to model instructional strategies they have learned from professional development.

The plan may include:

- Samples of teaching activities
- Completed professional development
- STEM-related parent engagement activities
- Observations by supervisors and colleagues
- Appraisals that students make of teachers
- Teacher reflections.

Teaming/Collaborative Planning Expectations

- Teachers will be engaged in reflective, collaborative teaching. Common level planning time will be used to plan interdisciplinary units of inquiry, examine student work and student data, plan interventions and create common formative assessments based on CAS. All teachers will commit to sharing best practices. Common planning time will utilize the Professional Learning Community Model (DuFour's PLC model). Teachers are a learning community and will collaborate regularly with team members and students to ensure academic and personal achievement for the students.
- Student data, used to drive instruction, will be an important part of PLC meetings. STEM school staff will participate in on-going data analysis as a regular part of their collaboration.
- A master teacher on each level will establish a model classroom. Each teacher will be scheduled to visit this model classroom on a rotating basis in order to observe best practices and classroom management. The master teacher for each STEM content area will share best practices with staff and provide demonstration lessons. All staff is expected to take advantage of opportunities to increase their ability to deliver effective instruction in the STEM content areas.
- Teachers are expected to participate in lesson study groups by levels and by content areas. During these meetings, teachers will model, try and evaluate the success of lessons.
- A school resource room will be established for the purpose of providing on-site professional development to teachers.

Colorado STEM Academy Schedule

Length of School Day

- The school day will allow for in-depth study of each and all of the STEM areas, particularly for 4th – 8th grade.
- Extended day programming for 4th – 8th grade will focus on STEM-based activities and clubs such as:
    - **Robotics – STEM:** Includes hands-on, experiential, inquiry-based learning and makes STEM topics appealing to students of all ages through after school activities.
    - **Technology Club (TSA):** Fosters the development of technological literacy skills in students, parents and teachers of the school.

- Extended day programming for 3rd grade will focus primarily on literacy and math enrichment in preparation for the STEM curriculum.

Summer School/Extended Year

- Colorado STEM Academy will provide opportunities for experiential learning through content-related trips and activities. All students not meeting level expectations in literacy and/or math will be required to attend summer school.

Partnerships

Role of Partners: (Advisory/Curriculum/Embedded Activities)
Community and business partnerships will be developed that provide:

- Opportunities for hands-on exploration and experiential learning
- Curriculum development
- Professional development
- Extended day programming.

Internships/Job Shadows/Mentoring/Community Experiences

In order to expose students to STEM careers, Colorado STEM Academy will:

- Create partnerships with employers to expose students to careers in science, math, engineering, healthcare, biotechnology and technology.
- Solicit mentors who can spark interest in science and technology, share in exploration of STEM activities, and provide hands-on experiences that help young people understand the role of these important skills in their everyday lives.
- Provide guest speakers who promote awareness and interest in diverse careers in science and engineering.

Education Partners

- University partners are critical in the success of any STEM school. University partners can help with training and recruitment of staff along with opportunities for STEM students.

Plan of Study and Transition Planning

In order to establish the expectation that students will attend post-secondary schooling, the STEM school will:

- Create university or college partnerships for mentoring, fostering a college-going culture, and prepare students to be able to take college level courses/dual credit during high school.
- Implement a college-going culture with the goal that all students will attend post-secondary schooling after high school.
- Work collaboratively to develop a comprehensive curriculum that is closely aligned with the expected 9th grade competencies as determined by CAS.

Career Discovery

Highly focused academic and career counseling will be provided to 8th graders. This will include exposure

to a STEM high school and college options within STEM fields. By the end of 8th grade, each STEM student will complete a shadowing experience in their area of interest. Student portfolios will contain evidence of one of these experiences.

High School and College Readiness

High School and College Visits

- Prior to completion of 8th grade, each student will complete actual and virtual visits to college campuses. Visits will include tours and an admissions overview which specifies university expectations for freshman admissions. Students in 8th grade will also visit high schools with a STEM focus and attend one High School Choice Fair.

STEM Culture and Climate

- Colorado STEM Academy will have a culture of academic excellence.
- Learning deeper STEM content will be expected of all students, parents and staff in order to support the vision of the school.
- The school environment will be safe for both teachers and students to experiment with new ideas.
- The school will develop a partnership between teachers, parents and students who will work together to ensure student achievement.
- There is an unmistakable common belief that all students can learn at a high level.

Colorado STEM Academy Contract

The school will devise a ***Contract***, an agreement committing families, students, and school staff to work in equal partnership to help each student reach his or her potential. The agreement will identify conditions which must be created in the school and the home to increase student achievement and specify shared responsibilities that are necessary to create the conditions for continuous improvement.

School Uniforms

The school uniform will reflect the theme of the school as well as support a safer learning environment.

Colorado STEM Academy Advisory Program

Students will be mentored by one staff member throughout their learning experiences at Colorado STEM Academy. Multiage groups will meet once a week. Staff members will work with students to develop strong supportive relationships.

Parental Role

In Academics

- The STEM school will provide regular communication with parents about student progress and performance.
- As homework assignments become increasingly more difficult, parents are expected to monitor assignment completion using the rubric provided.
- Parents will have workshops and other opportunities to develop their background in STEM

content.

- Parents will have on-line access to classrooms assignments and resources through the development of class websites.
- Parents will be able to track student progress through on-line access to grades and projects.
- Parents will support literacy initiatives at home and communicate regularly with teachers about their child's progress.

In School Culture and Climate

- Parent commitment, roles and responsibilities will be articulated in an agreement which includes parents as partners in education and specifies expected roles and responsibilities.
- Parents will have opportunities for involvement through participation in field studies and after school events and activities such as science, math, literacy and engineering Family Nights.
- Parents will be connected to the curriculum through learning activities and homework in which families can participate.
- Guest speakers from STEM fields will motivate families through discussions on STEM career opportunities.
- Parents will serve on school committees and organizations.

Support Services

Special Education

- Special Education teachers will use a co-teaching and push-in blended service model. Lessons will be differentiated to ensure the success of all students in the class. Data will be disaggregated and monitored to ensure that all students are successful. Special education teachers will participate in personalized job-embedded professional learning to support the development of reading skills in the STEM content areas.

Tutoring

- Tutoring will be provided through extended day and the after school STEM Academy.

Support Services Model

- There will be a school-wide system of support for students' social-emotional and behavioral development. The use of the Responsive Classroom behavioral support and classroom management program will provide materials and curriculum to facilitate this school-wide design.
- Students who continue to experience academic difficulty or miss assignments will be required to participate in student support activities during summer school and the extended day.

Cost Savings/Increase of Efficiency

Colorado STEM Academy does not anticipate any cost savings resulting from the Innovation plan, but we do expect that the proposed measures, such as increased involvement of parents, the emphasis on partnerships, and extending time will increase efficiency in the area of instruction and student achievement. Such measures may well result in overall cost reduction in the areas of salaries for licensed and non-licensed staff as well as instruction, among other things.

Application Process (Colorado STEM Academy)

There will be an equitable selection process, such as a lottery, to determine who will be enrolled if more students apply than there are openings. Colorado STEM Academy will hold a lottery in spring 2013 to determine placement on the waiting list for all grade levels. More information on Colorado STEM Academy's admissions procedures can be found on our website under the Admissions tab. www.CoStemAcademy.org (***please see also Appendix E***).

Section V

Description of Projections in Academic Achievement

Colorado STEM Academy is committed to being a high performing elementary and middle school. We expect the school to receive an overall rating of "Exceeds Expectations" and an Academic Growth rating of "Significant Improvement" within three years of opening (District 50 SPF Framework). We will use Data Teams (Besser, Anderson-Davis, Peery 2006) to drive and adjust instruction. It is our feeling that all pieces of school improvement, teacher evaluation, and student growth objectives and data team goals need to be tightly aligned and consistently visited to attain our goals. The combination of these processes will provide a framework that allows us to engage in thoughtful conversations about teaching strategies, leadership decisions, and other adult actions that influence student achievement.

District 50 School Performance Framework Indicators	**Innovation School Annual Achievement Goals and Measures**
Student Growth Over Time Toward State Standards, including the following measures: • TCAP and other assessments chosen, including assessments in compliance with the READ Act, effective 7/1/2013).	Colorado STEM Academy has a commitment to academic success. We expect the school to receive an overall rating of, "Performance," and an academic Growth rating of "Significant Improvement" on the 2014 Colorado State Assessment. Therefore we will meet the following requirements: • The school's median growth percentile will be 50 or higher in reading, writing and math. • The median growth percentile will be above the acceptable range (at least 5 percentiles above the cluster median). • The school's percentage of students moving to a higher TCAP performance level in reading, writing and math will be equal to or above the District's percentage. • The school's percentage of students staying at proficient or advanced TCAP performance levels will be equal to or above the District's percentage. • The school's percentage of students Proficient or Advanced change over time will be 10 percentage points or more than the District's non-continuously enrolled students' percentage change over time. • All students will be expected to show at least one year growth in one year time in reading, writing and mathematics. In addition, those who are not yet at proficiency will be expected to improve by an additional .5 percent each year until they reach proficiency.
Student Achievement Level/Status, including the following measures:	Our goal is that 65% of students reach proficiency in reading, writing and math. Colorado STEM Academy is a new school

• TCAP and other assessments chosen, including assessments in compliance with the READ Act • Achievement gaps (i.e., FRL, ELL, Special Education—IEP, and ethnic subgroups)	with no prior testing data available. Looking at achievement data from comparable elementary (and middle) schools in the surrounding area, the school projects a 60% reading proficiency, a 45% writing proficiency and a 55% math proficiency rate. These goals are 10-15% higher than most schools in the surrounding area. Our students would continue to progress eventually reaching and surpassing the 65% level by gaining a year and a half of instruction each year. If achievement in our subgroups falls below these projected proficiency rates, we will take the following measure to ensure scores will increase among all grade levels (3rd through 6th) and among all disaggregated groups (i.e., ELL, IEP, FRL), in order for growth to occur among student groups across the content: **Literacy—Writing** To increase vocabulary, fluency, and comprehension. Implementation of Write From the Beginning. Explicit professional development and best practices in writing instruction. Support for our ELLs will occur through Pathways to Proficiency, the ELL component of Write From the Beginning. **Literacy—Reading** Increase vocabulary, fluency, and comprehension. Explicit focus on the five components of reading and a balanced approach to literacy strategies including guided, shared, independent reading and vocabulary development. Involving the entire staff in the review of Marzano's *The Art and Science of Teaching* as a way to identify an effective framework to guide our instructional choices. **Math** Increased interventionist support through pull out/push in model through a blended-service approach. More specific focus and scope and sequence with the Everyday Math curriculum. Increased staff development and focus on best practices in mathematics instruction. ELL teacher push in and pull out interventionist support during math instruction will support our ELLs.

Section VI

Proposed Budget, Including Funding Required for All Innovations

Our school leadership team will agree on budget allocations based on the number of students enrolled on October 1st. The Colorado STEM Academy leadership will be able to purchase administrative services based on our model for the following: transportation, food services, facility management, maintenance, student services and substitute teachers, from District 50, based on a pricelist that will be provided by District 50 to the principal or designee, or from other providers.

The budgets below illustrate the current year's budget plan along with some proposed figures for the 2013-2014 and 2014-15 school years. These budgets are rough outlines of some of the possibilities we have to adjust. Additional money has been moved to technology expenses and staff professional development in anticipation of the approval of the Innovations related to curriculum and technology. The budget process for Colorado STEM Academy will become a collaborative effort between administration, staff, and the School Governance Committee to determine true budget amounts for the upcoming school year. All of the innovation factors will be taken into account to ensure the programs are implemented with fidelity and that we are meeting the instructional needs of our students. This budget is subject to change as new figures come in from the federal, state and District level, along with changes in costs related to various purchases for technology and curriculum.

The Board of Education has also allocated $56,829.08 to cover the extra 20 days of professional development and extended learning if revenues generated do not cover the extra 20 days of pay (please refer to the table on page 29 for a detailed explanation of this budget item).

The table below shows a breakdown of the anticipated revenue for the 2012-13, 2013-14, and 2014-15 schools years, including local, state, federal, and philanthropic sources.
Colorado STEM Academy is continuing its exploration of non-District funds, which may include not-for-profit and profit-based funding opportunities.

1. **Anticipated Revenue**

	2012-2013 STEM Planning Team		2013-2014 3rd-6th STEM (2 Rounds)		2014-2015 3rd-7th STEM (2 Rounds)	
Revenue Item	***Number***	***Revenue***	***Number***	***Revenue***	***Number***	***Revenue***
Number of Students = PPOR $5,950.00 (state funded base)	0.00	0	200.00	(1,351,400.00)	250	($1,689,250.00)
Number of Students = PPOR $764.00 (Categorical At-Risk Funding per pupil)	***Exact revenue for each year dependent on student enrollment***					
District 50 Board of Education funded: staffing		($126,260.00)				
District 50 Board of Education				($56,829.08)		

funded: professional development & extended learning						
"Bringing STEM to Life" Grant Proposal (Goodrich Foundation & District 50 Education Foundation)				($50,000.00)		--
Private Family Foundation				($85,000.00)		($40,000.00)
(National Center on Time & Learning Grant		($10,000.00)		--		--
Total anticipated revenue*	**0.00**	**($136,260.00)**	**200**	**($1,543,229.08)**	**250**	**($1,729,250.00)**

*** This amount does not include the Categorical At-Risk Funding (calculated when enrollment is completed for each school year.**

The District 50 Board of Education has allocated $1,500,000 for furniture, fixtures and equipment (FF & E), curriculum and renovations, for the development of two STEM labs and all building program needs. Below is a breakdown of the funds allocated by the District 50 Board of Education to open Colorado STEM Academy (8 classrooms in year 1 and 12 classrooms in year 3, when full capacity is reached).

2. Technology Budget - Cost:

Blended Classroom Technology Equipment			
	Unit Cost	**Quantity**	**Total**
Desktop Computer w/Monitor	$800.00	7	$5,600.00
iPad	$440.00	10	$4,400.00
Chromebook	$200.00	10	$2,000.00
Headphones	$25.00	30	$750.00
Teacher Laptop	$1,200.00	1	$1,200.00
Projector	$1,800.00	1	$1,800 .00
Apple TV & Converter	$160.00	1	$160.00
Clickers	$1,700.00	1	$1,700.00
Document Camera	$900.00	1	$900.00
Charging Case	$900.00	1	$900.00
Total cost per Classroom			**$19,410.00**
		Total cost for 8 classrooms	**$155,280.00**

School Technology Equipment			
	Unit Cost	**Quantity**	**Total**
8 Classrooms Blended Classroom Technology Equipment (see Total Cost for 8 classrooms, table above)			$155,280.00
Mobile Carts	$28,500.00	2	$57,000.00
Interactive Table	$6,500.00	1	$6,500.00
Digital Microscope	$200.00	30	$6,000.00
STEM Lab Computers	$1,800.00	20	$36,000.00
Office Workstations	$900.00	4	$3,600.00
Telephones	$400.00	21	$8,400.00
BW Laserjet	$300.00	8	$2,400.00
iVisions Software	$1,000.00	1	$1,000.00
Project Lead the Way Software	$4,000.00	1	$4,000.00
iPad Apps	$2,000.00	1	$2,000.00
Adobe School Collection	$60.00	144	$8,640.00
3D Printer	$2,500.00	1	$2,500.00
Laser Engraver	$45,000.00	1	$45,000.00
Access Points	$800.00	20	$16,000.00
Cabling	$150.00	12	$1,800.00
Total Cost			**$356,120.00**

3. Furniture Fixtures and Equipment (FF&E) STEM Cost

Furniture Fixtures and Equipment	
Per Classroom - $9600.00 x 12 =	$ 115,200.00
STEM Lab 1 -	$16,000.00
STEM Lab 2 -	$13,000.00
Office and Clinic -	$12,000.00
Lunch Room and PE -	$17,000.00
Miscellaneous -	$10,000.00
Total Cost for 12 Classrooms =	**$183,200.00**

4. Curriculum Needs for Two STEM Labs Cost

Curriculum Needs STEM Labs	
Total Cost Pitsco STEM Curriculum Cost	**$100,000.00**

5. Staffing Costs 20-12-13

Colorado STEM Academy Staffing	
Total Staffing Cost	**$126,260.00**

(For a detailed breakdown, please see **Appendix B**.)

6. Cost associated with proposed Innovations

Innovation Cost	
Cost for proposed Innovations (extended school year)	**$56,829.08***

* (to be allocated for 2013-14)

(For a detailed breakdown, see **Table 5** on p. 29.)

Section VII

Statement of the Level of Support for Designation as an Innovation School

We, the Colorado STEM Academy Design Team, have engaged in a very inclusive, collaborative and transparent process. As a result of these outreach events and families signing up on our website, we have names of parents interested in having their students attend Colorado STEM Academy. We believe we are off to a strong start and have created a strong interest in our school.

The administration currently employed at Colorado STEM Academy supports the designation as an Innovation School. We took a vote with current administrators on February 20, 2013 at 9:30 am, and they are in support of this plan (**see Appendix C**).

All hired staff—licensed and non-licensed—at Colorado STEM Academy will be employed under at-will conditions. Current administration is already under contract with the District, per a standard administrator agreement. All future administrators will be hired under the at-will terms outlined in the **Staff Offer of Employment Letter** (**see Appendix D**). There are currently no staff members employed at Colorado STEM Academy, since it is a new school that will begin hiring staff in spring 2013 for employment in the 2013-14 school year. The **Staff Offer of Employment Letter** (**see Appendix D**) which will be provided to each prospective staff member, notifies the staff that Colorado STEM Academy is seeking innovation status, the staff member be provided a copy of the Innovation Plan and by signing the Offer of Employment Letter, the staff member specifies that he/she supports the designation of Colorado STEM Academy as an Innovation School.

As a new school, Colorado STEM Academy will not have a School Accountability Committee until students are enrolled.

After being fully staffed, the School Accountability Committee, staff, and administration will conduct a separate vote for each group to demonstrate support of Colorado STEM Academy being designated as an Innovation School.

It is clear that we want to offer a high-performing 3^{rd} – 8^{th} grade small school that provides an opportunity for families in our boundary (and for those families wishing to open-enroll) that works for their children. By providing a school environment that will focus on problem-based, project-based, and inquiry-based learning, we firmly believe that we will be unique and effective by helping students achieve at a high level academically and that we will graduate young citizens ready for college and ready to solve our most significant community problems. We know that parent and community engagement will be critical to our success and that is why we have and will continue to engage in such outreach efforts. Our community will play a vital role in making Colorado STEM Academy a true success story.

Colorado STEM Academy (CSA) Design Team has worked in collaboration with District 50 staff and administration to engage in a very thorough and thoughtful community process in determining the community's threshold for a program, such as Colorado STEM Academy. Overall, the community has shown strong support for Colorado STEM Academy and its academic program.

Continuing efforts to engage with community stakeholders will include one or more of the following:

- Conduct Regional Community Meetings to synthesize community feedback.

- Participate in a community ice cream social in the spring of 2013 where we will share and disseminate information about the Colorado STEM Academy program while seeking community input and initial perceptions of such a program.
- Participate in several smaller group community meetings throughout southwest Adams County to specifically address questions from the community (in a Q&A format).
- Host two community open houses so community can see the school and meet the staff.
- Recruit members of the community to help families with the enrollment and open enrollment process during pre-registration and registration events.

Please see Appendix C for letters of support.

Section VIII

State and District Policies to be waived, including Provisions of the Collective Bargaining Agreement & Compliance with NCLB Title II-A requirements

If the listed waivers for Colorado STEM Academy are approved, the school will establish a protocol for oversight and accountability to ensure compliance with the state. In each of the areas for Innovation, *TIME, TEACHING CONDITIONS, COMPENSATION, EMPLOYMENT & EVALUATION*, Colorado STEM Academy will ensure that appropriate groups within the school community are involved for accountability. The Colorado STEM Academy staff will explore the education decisions related to these Innovations and report their findings and ideas to various teams within the building. Ultimately, the Leadership Team at Colorado STEM Academy will make decisions as to the systems that will be implemented within the building. The administration will then take the ideas to the School Advisory Committee (SAC) to ensure accountability to the Mission and Vision of the building. The SAC Board will also ensure that the components relate to the objectives of the Innovation Plan. The School Advisory Board will also act as a liaison to the community to ensure parent input is included in the educational decisions impacting our students.

Each of the waivers as stated incorporate an action and a replacement policy or practice to identify specific accountability measures for the proposed Innovation. In order to comply with NCLB Title II A requirements, all core content instructional staff employed at Colorado STEM Academy will have a valid teaching license and meet subject matter competency requirements for the teaching subject. It is important for Colorado STEM Academy to be able to dismiss teachers and other staff who are not in alignment with the mission and vision of the school.

Please see Appendix A for a detailed listing and description of waivers requested from State statutes, District Policies, and Agreements, including waivers from the District's collective bargaining/negotiating agreement.

Appendices

Appendix A – State and District Policies to be Waived

State Policies – Colorado Revised Statutes

To enhance the ability of Colorado STEM Academy to innovate, we request the following Colorado Revised Statutes be waived:

Description	*Action*	*Statute to be Waived*	*Replacement Policy or Practice*
Teacher Employment, Compensation and Dismissal Act of 1990 Employment license required –Exception	Colorado STEM Academy will comply with federal law and regulation on Highly Qualified Teachers.	**C.R.S. 22-63-201**	The school will verify to the District the qualifications of teachers for the purpose of complying with federal and state law. In order to comply with NCLB Title II A requirements, all core content instructional staff employed at Colorado STEM Academy will have a valid teaching license and meet subject matter competency requirements for the teaching subject. It is important for Colorado STEM Academy to be able to dismiss teachers and other staff who are not in alignment with the mission and vision of the school.
Teacher Employment, Compensation Dismissal Act of 1990 Probationary teachers renewal and nonrenewal of employment contract	Delegates authority to the school to terminate at-will employees.	**C.R.S. 22-63-202**	The school will dismiss teachers in accordance with statute when applicable.
Teacher Employment, Compensation, and Dismissal Act of 1990 Renewal and nonrenewal of employment contract	The school will treat all teachers hired in accordance with State law as it pertains to at-will employment.	**C.R.S. 22-63-203**	Teachers hired from within the District will not retain their employment rights within the District and will be treated as at-will employees.

Description	*Action*	*Statute to be Waived*	*Replacement Policy or Practice*
Teacher Employment, Compensation and Dismissal Act of 1990 Transfer of teachers	The District delegates to the school the right to conduct its own teacher placement and relinquishes the right to transfer teachers.	**C.R.S. 22-63-206**	The District will no longer make direct placement of teachers to the school, or direct placement within school.
Teacher Employment, Compensation and Dismissal Act of 1990 Grounds for Dismissal	The District delegates to the school the right to dismiss teachers consistent with at-will employment.	**C.R.S. 22-63-301**	The school will dismiss teachers in accordance with State law consistent with at-will employment.
Teacher Employment, Compensation and Dismissal Act of 1990 Procedure for Dismissal	The District delegates to the school the right to use its own procedures for dismissing teachers.	**C.R.S. 22-63-302**	The school will adopt a consistent procedure for dismissing teachers.
Teacher Employment, Compensation Dismissal Act of 1990 Teachers subject to adopted salary schedule	The Board of Education delegates to the school the authority to set its own compensation system.	**C.R.S. 22-63-401**	The school will adopt a consistent policy to compensate teachers that is competitive to surrounding districts.

Description	*Action*	*Statute to be Waived*	*Replacement Policy or Practice*
Teacher Employment, Compensation Dismissal Act of 1990 License and authorization required in order to pay teachers	Waives the provision that requires teacher to hold licenses/authorization in order to be paid.	**C.R.S. 22-63-402**	The school will adopt a policy for fair compensation of instructional staff. Experts in science, technology, math, and engineering without a teaching license will be hired as full or part-time instructional staff to provide appropriate expertise to students.
Teacher Employment, Compensation Dismissal Act of 1990 Payment of salaries	Delegates to the school to pay their pro-rata share of the compensation up to the point that the employee is dismissed.	**C.R.S. 22-63-403**	The school will adopt a policy for fair compensation of staff upon dismissal.
Local Boards of Education—Duties Local Board duties concerning performance evaluations for licensed personnel	The school will fulfill the requirements of state law when conducting teacher evaluations. The school will have the authority to designate personnel who do not have administrative licenses to conduct teacher evaluations.	**C.R.S. 22-9-106(4)(a)**	The school will use District evaluation procedures and will still meet the intent of the law, but adopt a set of standards aligned with instructional programs at the school, as well as the teacher profile. School will permit instructional leaders (e.g. coordinators, TOSA) without administrative licenses to evaluate teachers.
Local Boards of Education—Duties Local Board duties concerning selection of personnel and pay	Delegate authority to the school to select staff and set rates of pay (interacts with 22-63-201 & Section 22-63-206)	**C.R.S. 22-32-109(1)(f)**	The school will select teaching staff directly and set rates of pay based on school policy.

Description	*Action*	*Statute to be Waived*	*Replacement Policy or Practice*
Schedule and Calendar **Actual hours of teacher-pupil instruction and contact** **School Calendar**	Delegates authority to the school to establish its own calendar.	**C.R.S. 22-32-109(1)(n)(I)** **C.R.S. 22-32-109(n)(II)(A)** **C.R.S. 22-32 109(n)(II)(B)**	The school will exceed statutory minimums for calendar, hours of teacher pupil contact and schedule, subject to District oversight based on the SPF. School will have authority to establish its own calendar, including professional development days, or days off that may differ from District.
Local Boards of Education—Duties Local Board powers concerning employment termination of school personnel	Delegates to the school the ability to discharge non-licensed employees; the school will be responsible for complying with statutory due process expectations when applicable.	**C.R.S. 22-32-110(1)(h)**	The school will adopt a policy for dismissal of non-licensed staff and will seek the support of Human Resources when handling dismissal cases.

District Policies – Board of Education Policies

To enhance the ability of Colorado STEM Academy to innovate, we request the following District 50 Board of Education Policies be waived:

Description	*Action*	*Board of Education Policy to be Waived*	*Replacement Policy or Practice*
Professional Staff Assignments and Transfers Administrative staff recommends licensed personnel for transfer to Superintendent	Exempts Colorado STEM Academy from involuntary or voluntary transfer of licensed personnel.	**GCF**	Colorado STEM Academy will not participate in transfer of licensed personnel, but reserves the right to hire licensed personnel that, in the principal's discretion, fits the instructional needs of its students.
Professional and ESP Staff Recruiting/Hiring The District handles hiring, recruiting, background checks, and appointment of positions to be filled at schools and other District facilities.	Delegates to the school the ability to recruit for, hire, and appoint candidates for open positions; the school will be responsible for complying with statutory due process expectations when applicable.	**GCE/GCF**	The school has authority to pursue recruiting, hiring, and appointment of suitable candidates on its own; will seek the support of Human Resources when handling recruiting, hiring, and appointment of candidates.
Professional Staff Induction Induction program is conducted jointly by the central administration and individual schools	Waives the provision that teachers new to the District and employed at the school will have to participate in District-mandated induction activities.	**GCHC**	The school will largely utilize District induction procedures, which comply with state law, but adopt sub-standards so they are aligned with instructional programs at the school, as well as the teacher profile.

Description	*Action*	*Board of Education Policy to be Waived*	*Replacement Policy or Practice*
Professional Staff Development Opportunities The District shall mandate and provide for professional growth opportunities	Delegates to the school academy the ability to supplement or replace District-required professional development activities.	**GCI**	The school will utilize District professional development opportunities, but adopt standards so they are aligned with instructional programs at the school, as well as the teacher profile.
Staffing New Schools The District is responsible for staffing positions within a new school	Waives the provision that the District selects licensed and non-licensed staff for the school.	**GCJ**	The school will select teaching staff directly and meet or exceed the requirements for the selection process utilized by the District.
ESP Recruiting, Posting, and Hiring The District is responsible for recruiting, posting, and hiring of ESP	Waives the provision that the District recruits, posts positions, and hires ESP.	**GDE/GDF**	The school will select non-teaching staff directly and meet or exceed the requirements for the selection process utilized by the District.
ESP Payment Schedule, Workweek and Workday The District is responsible for setting payment schedule, workweek and workday for ESP.	Waives the provision that the District sets payment schedule, workweek and workday for ESP.	**GDJ**	The school may set its own workweek and workday for ESP, aligned with its extended school day and year.
School Year/School Calendar/School Day The Superintendent supervises the development and implementation of the District calendar**.**	Waives the provision to follow the District calendar and District recommendations for staff development.	**IC/ICA**	The school will develop its own annual calendar and set length of school day, and thus meet or exceed the minimum standards of the District and state.

District Policies – Licensed Employees and ESP Agreements

To enhance the ability of Colorado STEM Academy to innovate, we request the following Articles (Licensed Employees & ESP Agreements) to be waived:

Description	*Action*	*Article to be Waived*	*Replacement Policy or Practice*
Grievance Procedure Grievance representation through the Association on behalf of the grievant (i.e., a licensed teacher or other school staff)	Delegates authority to the school to address and resolve grievances for all employees of the school.	**Licensed Employees Agreement, Article 6**	The school will adopt a consistent policy to address and resolve grievances.
Transfers Transfer options and inter-school posting of openings	Waives teacher transfer options (full-time relocation from one building site to another building site) and inter-school posting of openings.	**Licensed Employees Agreement, Article 7**	District will not make direct placement of teachers to the school, or direct placement within the school.
Teaching Conditions Defines contract year, teaching hours, teaching load, planning periods for teachers, provisions for substitute teaching, contracting work currently performed by licensed teachers, complaints concerning a teacher, in-service training.	Delegates authority to the school to establish its own calendar, define teaching conditions, professional development, and substitute teaching.	**Licensed Employees Agreement, Article 8– 1 through 8-23 and 8-25 (except for 8-24 waivers, which will stay in effect)**	The school will use District provisions, which comply with state law, but may adopt its own set of standards.
Right to Representation Teacher may request that an Association representative be present throughout the disciplinary process.	Waives the provision that allows Association representation at a disciplinary hearing against staff.	**Licensed Employees Agreement, Article 9**	The school will adopt a policy for fair disciplinary actions against staff.

Description	*Action*	*Article to be Waived*	*Replacement Policy or Practice*
Teacher Exchange Make available to teachers a limited program of teacher exchange within Adams County School District No. 50	Waives the provision of the Teacher Exchange Program.	**Licensed Employees Agreement, Article 10**	The school will not participate in the District Teacher Exchange Program.
Teacher Evaluation Appraisal of the overall classroom effectiveness of the teacher's effort according to predetermined criteria and responsibilities of Advisory School District Personnel Performance Evaluation Council	The school will fulfill the requirements of state law when conducting teacher evaluations. The school will have the authority to designate personnel who do not have administrative licenses to conduct teacher evaluations.	**Licensed Employees Agreement, Article 12**	The school will use district evaluation procedures. School will permit instructional leaders without administrative licenses to evaluate teachers.
Compensation Defines salary, advancement on salary schedule	Delegates to the school the authority to set its own compensation system; the school proposes that it may need to pay people on a different pay scale.	**Licensed Employees Agreement, Article 34**	The school will adopt a consistent policy to compensate teachers that is competitive with area districts.
Conflict Resolution Defines representation and procedures during conflict resolution	Waives the provision that allows Association representation at a disciplinary hearing against staff.	**ESP Agreement, Article 6**	The school will develop its own conflict resolution procedures, to be used with all staff at the school.

Description	*Action*	*Article to be Waived*	*Replacement Policy or Practice*
Transfers Defines transfer procedures for ESP.	Waivers from this policy will allow the Innovation School to opt out of District procedures for transfer of non-licensed staff.	**ESP Agreement, Article 7**	The school will reserve the right to opt out of transfer of ESP between schools, on a case-by-case basis.
Compensation Defines payment schedule, workweek and workday for ESP.	Waivers from this policy will allow the Innovation School to set its own payment schedule and workday/workweek for ESP.	**ESP Agreement, Article 17**	The school will develop its own payment schedules and workday/workweek for ESP.
Working Conditions Defines payment schedule, workweek and workday for ESP.	Waivers from this article will allow the Innovation School to set its own payday schedule, classified workweek, and classified workday.	**ESP Agreement, Article 19**	The school will develop its own payment schedules and workday/workweek for ESP.

Appendix B – Colorado STEM Academy – Proposed Staffing

	2012-2013 STEM Planning Team		2013-2014 3rd-6th STEM (2 Rounds)		2014-2015 3rd-8th STEM (2 Rounds)	
	Number	**Cost**	**Number**	**Cost**	**Number**	**Cost**
Students = PPOR $6,757	0.00	0.00	200.00	1,351,400.00	250.00	1,689,250.00
Number of Students = PPOR $764.00 (Categorical At-Risk funding per pupil)	***Exact revenue for each year dependent on student enrollment***					
Instructional Staff	**2.50**	**177,500.00**	**15.00**	**918,000.00**	**20.00**	**1,183,500.00**
Principal	1.00	86,000.00	1.00	86,000.00	1.00	86,000.00
Instructional/Technology Coach			1.00	65,000.00	1.00	65,000.00
Classroom Teachers			8.00	472,000.00	12.00	708,000.00
ELL Teacher			1.00	59,000.00	1.00	59,000.00
SPED Teacher			1.00	59,000.00	1.00	59,000.00
PE Teacher			1.00	59,000.00	1.00	59,000.00
Technology Teacher			1.00	59,000.00	1.00	59,000.00
World Languages			0.50	29,500.00	0.50	29,500.00
Counselor			0.50	29,500.00	1.00	59,000.00
Support Staff	**0.50**	**21,000.00**	**5.50**	**175,750.00**	**8.00**	**232,500.00**
Secretary	0.50	21,000.00	1.00	42,000.00	1.00	42,000.00
Office Assistant			1.00	23,500.00	1.00	23,500.00
Office Aide			0.50	9,850.00	1.00	19,700.00
Instructional Paras			1.00	22,900.00	2.00	45,800.00
Custodians			1.50	72,000.00	2.00	96,000.00
Culinary Services (not GF)			0.50	5,500.00	0.50	5,500.00
Community Liaison			0.00	0.00	0.00	0.00
Benefits Total		**19,260.00**		**203,125.00**		**261,130.00**
Grand Total Cost		**126,260.00**		**1,296,875.00**		**1,677,130.00**

ESP staffing is based on less than 850 students.

Appendix C – Letters of Support

Letter of Support –

Westminster, February 19, 2013

Re: Statement of Support from Colorado STEM Academy Administrative Team

To Whom It May Concern:

At this time, I am the sole administrator of Colorado STEM Academy. I will also be in charge of opening the school in August of 2013 and serving as principal for the 2013/14 school year.

This letter is an expression of my support for the designation of Colorado STEM Academy as an Innovation School.

Sincerely,

Anthony Matthews

Principal, Colorado STEM Academy
Adams County School District 50
6933 Raleigh Street
Tel. 720.542.5016
E-mail: amatthews@adams50.org | http://www.adams50.org

Letter of Support –

WESTMINSTER

January 22, 2013

To Members of the Colorado State Board of Education,

I am pleased to write a letter of support for the Colorado STEM Academy's application for innovation status. It is an important and necessary step in developing a school that will serve the needs of the students of District 50.

As Mayor of Westminster, I am pleased to serve the people of the District 50 community, and have followed very closely the district's commitment to innovation and reform. I am so proud of the hard work the district has undertaken. As you know, District 50 was removed from "Turnaround" status last year and teachers and administrators are working tirelessly to ensure that all of our children receive a quality education and achieve proficiency in the classroom.

I am also well aware of the needs of the business community and the demands of a 21st century economy. It is imperative that we graduate more students with skills in science, technology, engineering and math. The Colorado STEM Academy will offer a rigorous education that I believe will meet the needs of our students and the business community.

Thank you for all you do for the children of Colorado.

Sincerely,

Nancy McNally

Nancy McNally
Mayor

City of Westminster
Office of the
Council

4800 West 92nd Avenue
Westminster, Colorado
80031

303-658-2006
FAX 303-706-3921

Letter of Support –

January 2013

To Members of the Colorado State Board of Education,

I am writing to you to urge your support for Adams' County School District 50's application for innovation status for the Colorado STEM Academy scheduled to open in August of 2013. I offer you two valuable perspectives on why, I believe this application should be approved.

Some of you may recall that I wrote the very first innovation plan to be enacted in the state of Colorado. The plan helped us to retool Manual High School and meet the challenges of the Denver community. As we discovered, the ability to move with speed and flexibility is hugely important as school districts try to reform and innovate.

My second perspective comes from my current work with the National Center on Time and Learning, and the TIME collaborative. It is a multi-year investment in the development of high-quality expanded learning opportunities for students across the country. We are working closely with the Ford Foundation, Colorado Legacy Foundation and Colorado Department of Education to identify schools and districts across the state and country that can serve as models for the effective use of time.

District 50 is one of just four Colorado school districts to partner with us on this project and was selected because of its history of innovation and the opportunity to imbed our training with the new staff of the Colorado STEM Academy.

I believe that innovation status is critical if District 50 is to succeed in the opening of its STEM school that is built around a commitment to students having more time in the classroom.

Please don't hesitate to contact me if you have any questions about District 50's application or the National Center of Time and Learning.

Sincerely,

Rob Stein

Rob Stein
Senior Director, District and State Support
National Center on Time and Learning

Letter of Support –

January 23, 2013

District Accountability Advisory Committee (DAAC)
Adams County School District 50

To: District 50 Board of Education
6933 Raleigh St.
Westminster, CO 80030

To Whom It May Concern,

Per Board Policies ADE, ADE-E, and ADE-R the District Accountability Advisory Committee (DAAC) has reviewed the Innovation Plan for the Colorado STEM Academy presented to the Board of Education on Tuesday, January 22, 2013.

DAAC supports the Colorado STEM Academy Innovation Plan. This plan has met the standard of educational integrity and excellence as embodied in the Colorado STEM Academy Innovation Plan. DAAC recommends that Adams County School District 50 approve the application for Colorado STEM Academy.

If you have any questions, please let us know.

Sincerely,
District Accountability Advisory Committee

Dawn Baird, DAAC Chair

Date: 1-25-2013

Appendix D – Staff Offer of Employment Letter

CONTRACT OF EMPLOYMENT

1.0 Parties. This contract of employment is entered between Colorado STEM Academy and _____ (the "Employee").

2.0 Nature/Term of the Employment Relationship. **This contract is for employment of the Employee on an AT WILL basis during the 2013-2014 school year at the School.** That is, this contract can be terminated by either party, at any time, with or without advance notice, with or without opportunity for a hearing, and with or without cause. This contract is for employment on a full time (1.0 FTE) basis and, if not terminated by either party, for the 2013-2014 school year. The full contract year consists of 205 days. Hours and calendar days of employment are established by and may be changed by the School's governing board. This contract is void-able at the option and in the sole and absolute discretion of the School should reference checks, background checks, or confirmation of licensing 1) prove unsatisfactory to the School, or 2) not be timely completed.

3.0 Contract Obligations & Policies of the School Incorporated. This contract is subject to all terms and conditions established by District policies and the Colorado STEM Academy Innovation plan. To the extent the employee's duties involve compliance with District policies and the Colorado STEM Academy Innovation plan, employee agrees to become familiar with and abide by obligations established in District policies and the Colorado STEM Academy Innovation plan.

4.0 Innovation School. The School's Innovation Plan was approved by the District 50 Board of Education. The School is awaiting designation by the Colorado Department of Education as an Innovation school pursuant to the Innovation Schools Act of 2008, C.R.S. § 22-32.5-101, *et seq*. Employee will be provided a copy of the School's Innovation plan. By signing this document, the Employee states that he/she supports the School's designation as an Innovation School.

5.0 Professional Employment & Certification. The School is employing the Employee in a professional capacity on a salaried basis. It is an expectation of the School that the Employee will make professional needs (including professional development needs or desires) known to the School. If the Employee's position would ordinarily require a license (such as a teaching license, or a certain endorsement), the Employee agrees to have or to seek the appropriate Colorado license. Employees

hired on temporary licenses or authorizations may be required to document their progress toward a regular license. Employee is responsible to remain, at all times, "highly qualified," within the meaning of the No Child Left Behind Act.

6.0 Compensation. The Employee's base salary for the full 2013-2014 school year (08/01/13-07/31/14) shall be: $_____ (1.0 FTE). In the event an employee is hired during the school year, the salary shall be reduced pro rata and commence on the date of hire. Deductions for retirement and other benefits and withholding for taxes are made from this salary. Certain payments for benefits may be made by the District in addition to this salary. Payment is normally made over a 12 month period, though work is performed during the school year. Additional stipend for extra-duty days, total of stipend $_____. Total Salary $_____.

7.0 Nondiscrimination, Compliance & Child Abuse Reporting. The School is subject to laws respecting nondiscrimination and such laws protect parents, students, visitors, and other employees, as well as the Employee. Employee agrees to abide by the nondiscrimination standards applicable to the School, including prohibitions on harassment. Employee further recognizes and agrees to report to proper School authorities any conduct that may constitute harassment and to report to proper public authorities any conduct that may constitute child abuse. Harassment may be reported to an employee's immediate supervisor or, if that supervisor is implicated in or does not timely investigate and correct the harassment, to higher administration or a member of the Board of Directors.

8.0 Extracurricular Programs. Employee's responsibilities may include work in direct or indirect support of any and all aspects of the School's program, including extracurricular activities. Certain activities related to such programs may involve additional compensation, which must be the subject of a separate written agreement. In the absence of a separate agreement, duties performed in relation to extracurricular activities are included within the compensation stated in this agreement.

9.0 Leave. Leave during the days covered by this contract is governed by School policies and law. Paid leave taken under school policies which could have been taken as unpaid leave under the Family and Medical Leave Act (FMLA) will be considered a part of the 12 week period covered by FMLA.

10.0 Current District 50 Staff. Staff employed by District 50 who obtained non-probationary status in District 50 prior to their employment at Colorado STEM Academy will be subject to the terms and conditions of the Colorado STEM Academy Innovation plan. Such staff will regain their non-probationary status with District 50 upon securing, without a break in service, a mutual consent position

within another District 50 school. Such staff will have the right to participate in the District 50 staffing cycles available to all District 50 staff, but will not be guaranteed placement in any other school or further employment beyond their employment at Colorado STEM Academy if they do not secure a position through mutual consent.

11.0 Entire Agreement. This Agreement and the documents incorporated by reference herein constitute the entire agreement between the parties and there are no other oral or written agreements, understandings, restrictions, warranties, or other representations between the parties relating to this subject matter other than those set forth. This agreement supersedes all prior agreements, understandings, discussions, or negotiations relating to this subject matter.

I HAVE READ THIS CONTRACT, HAD THE OPPORTUNITY TO DISCUSS IT, AND UNDERSTAND IT.

Date of Hire (if applicable): _____

By signing this document, I _____ acknowledge that I have read and I understand the foregoing employment conditions and accept the offer of employment on the terms and conditions contained herein.

_____ _____

Employee (Signed Name) Date

_____ _____

Witness (Printed Name) Date

_____ _____

Witness (Signed Name) Date

Appendix E – Student Application

STEM Central
ATTN: Anthony Matthews
7200 Lowell Blvd.
Westminster, CO, 80030

Colorado STEM Academy
2013-2014 Student Application Form

Please complete the application form for each child you wish to enroll at Colorado STEM Academy.
Once your child's application has been pre-screened we will contact you to set up a time for reading and math testing. After completion of testing you will fill out a formal registration packet and be placed in the spring lottery.
Completed application should be sent to the address above.

Student Information:

Last Name | *First Name* | *Middle Name*

Birthdate | *Gender* | *Grade in 2013-2014*

Current School | *School District where you reside*

Parent Information:

Mother's First and Last Name | *Email address*

Address | *City* | *Zip*

Cell phone | *Work phone* | *Home phone*

Father's First and Last Name | *Email address*

Address | *City* | *Zip*

Cell phone | *Work phone* | *Home phone*

Has the student been expelled or suspended from any school? (circle one) Yes / No
Are there any siblings applying to CSA? If so, fill out answers below.

Name/Grade | *Name/Grade* | *Name/Grade*

Parent/Guardian Signature: _____ Date: _____

There will be an equitable selection process, such as a lottery, to determine who will be enrolled if more students apply than there are openings. This application does not guarentee admission to Colorado STEM Academy.
CSA will hold a lottery in Spring 2013 to determine placement on the waiting list for all grade levels.
More information on Colorado STEM Academy can be found on our website.
www.CoStemAcademy.org

Appendix F – Board of Education Resolution

ADAMS COUNTY SCHOOL DISTRICT No. 50
RESOLUTION

WHEREAS the Board of Education is committed to leading the nation's cities in student achievement, high school graduation, college preparation, and college matriculation; and

WHEREAS the Board of Education believes that we must develop new, innovative approaches to teaching and learning in our existing and future schools by offering incentives, giving schools more autonomy over the critical areas of personnel, use of time, expanding choices, and building the capacity for innovation, and holding schools accountable for improving student achievement; and

WHEREAS The Innovation Schools Act provides a critical means for schools and the District to accelerate our direction toward its goals; and

WHEREAS the Board of Education has considered the Innovation Plan for the Colorado STEM Academy (CSA) and found that it meets all expectations of the Innovation Schools Act, including that it is fiscally feasible and that it will not result in lower student performance.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The Board of Education approves the Innovation Plan submitted by the Colorado STEM Academy (CSA) and submits it to the Colorado Board of Education under the Innovation Schools Act.
2. The District shall hold the Colorado STEM Academy (CSA) accountable on an annual basis for progress toward the goals in its Innovation Plan and their Unified Improvement Plan using the Adams County School District 50 School Performance Framework and report that progress to the Board of Education and the Colorado Department of Education.
3. The Chief Education Officer will be responsible for the continued review and accountability of all instructional elements of the plan, including any academic waivers from the District's curricular policies.
4. The District 50 Board of Education has the authority to reverse the Superintendent's denial of an Innovation School's autonomy request, including requests for any waivers from the District's curricular policies, if it is determined that District 50 is not respecting a school's approved Innovation Plan or is not adhering to the spirit of the Innovation Schools Act or the approved District 50 Board of Education Innovation Policy. The Innovation Plan of the Colorado STEM Academy (CSA), and any attachments and testimony provided thereto, is hereby incorporated, and shall be maintained, as part of this Resolution.
5. The District 50 Board of Education requests to be designated as a "District of Innovation" by the Colorado Board of Education under the Innovation Schools Act.

Dr. Marilyn Flachman, President

Sharon Whitehair, Vice President

January 24, 2013