

Calgary

Science

School

Education Plan



2006/2007

to

2008/2009



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I Message From CSS Board Chair



On behalf of the Board, administrators, teachers and staff of the Calgary Science School (CSS), I am pleased to introduce the school's Education Plan for 2006/2007 to 2008/2009.

The school is nearing the end of its seventh year of operation and continues to enjoy success with a full student enrollment and a complement of highly motivated and dedicated administrators, teachers and staff.

Each year the Board focuses on projects designed to not only maintain, but also improve, the school's achievements in meeting its goals. This year we identified a number of projects and have been working on them with the assistance of administrators, staff and parents. Our students' parents contribute significantly to the work of the school, volunteering for school activities and often serving on ad-hoc committees. The Board is extremely grateful for this help and recognizes the extent to which parental involvement strengthens our school.

One of our projects for this and following years is to strengthen our professional development program by identifying a cadre of "experts" in various disciplines, who will work with our teachers to create student projects that align the school curriculum with real life challenges. This will contribute to the problem-based learning foundation of CSS. We are investigating the possibility of a broader range of teacher exchanges to further our outreach activities. Although we continue to have secondments of teachers from other jurisdictions in our school for two-year terms, we are investigating the possibility of our teachers being seconded to other schools for a two-way exchange of learning experiences.

In December, we were thrilled to learn that our teacher proposal for the Emerging Technologies Grant was accepted, resulting in the provision of a personal laptop computer for every student beginning Grade 6 in the 2006/2007 school year. Each of these students will keep their computer for four years until the completion of Grade 9. This will afford us the opportunity to study how and when computers should be used in the learning process.

CSS remains an exciting place for children to learn. The breadth of school experiences continues to increase, including not only innovative programming in the science and mathematics areas, but extensive activity in the humanities. The students have a broad range of curricular and extracurricular choices including debate, music, drama, sports, outdoor education trips and various clubs. The teachers have developed an array of interesting and challenging local courses to provide greater opportunities for elective courses for our upper elementary and junior high school students.

We remain grateful to the Alberta government and Alberta Education for the opportunity to operate a charter school, with its freedom to explore and develop innovative and effective teaching methods. We are excited to continue this process through effective implementation of our Education Plan and through the continued existence of charter schools within Alberta's public education system.

Donna M. Maxwell, Chair
Calgary Science School Society
June 9, 2006



II

The Planning Process

In 2004/2005, the Board, staff and other stakeholders of CSS engaged in an extensive planning process based on concepts from the book *From Good to Great* by Jim Collins. As a result of this process, the education plan was significantly revised from previous years. In November 2005, the Board, including parents and volunteers from the teaching staff, participated in a retreat that resulted in the further refinement of the vision statements, measures and indicators developed in the fall of 2004.

In February 2006, the CSS staff revised and refined the measures and targets in the education plan. They also initiated the revision of our vision and mission statements. This process continues through the work of the Board Communications and Outreach committee. Parents, teachers and Board members serve on this committee.

The data from the above processes was compiled and returned to stakeholders for review.

The development of the Education Plan was informed by:

- The Annual Education Results Report
- The Guide for Charter School Planning and Results Reporting, April 2005 from Alberta Education
- Survey data from staff
- Alberta Education's Accountability Pillar survey
- The Priorities of the CSS Board
- Alberta Education's three-year plan and results
- Feedback from Alberta Education
- Ongoing monitoring of input from parents, Board and other stakeholders
- Information from the Alberta Education Charter School Study



Accountability

The Education Plan for the Calgary Science School for the three years commencing September 1, 2006 was prepared under the direction of the Charter Board in accordance with the responsibilities specified in the School Act, the Government Accountability Act, Alberta Education Policy 2.1.1 (Accountability in Education: School Authority Accountability”) and the provincial government’s accounting policies. This Education Plan was developed in the context of the provincial government’s business and fiscal plans. The Charter Board is committed to achieving the results laid out in the plan.

The planning process is designed to be open and participatory. One important aspect of accountability in this process is open communication with parents, community, government and other stakeholders. Accordingly, this plan will be communicated in the following ways:

- Posted on the CSS website at: <http://calgaryscienceschool.com/publications>
- Communicated with parents at a School Council/Town Hall meeting
- Distributed to:
 - Alberta Education
 - Other schools and school jurisdictions as requested
 - Parents as requested
 - Community members as requested

A handwritten signature in blue ink that reads "Donna Maxwell".

Donna Maxwell
Chair, Calgary Science School Board

Two handwritten signatures in blue ink. The top one reads "Louise A. Partridge" and the bottom one reads "Jim Toews".

Louise A. Partridge & Jim Toews
CSS Co-superintendents



IV

Vision, Mission & Principles

Vision (currently under review)

1. CSS provides an interactive and fertile environment for the dynamic exchange of ideas among our stakeholders (students, parents, teachers and administrators) and the educational community at large.
2. Students demonstrate the capacity to become life-long learners through commitment to learning and by exhibiting critical and creative thought, service to others and strong organizational skills.
3. Through a problem-based approach to curriculum and a variety of rich, off-site experiences students are excited, engaged and empowered. Within our school and beyond its walls, our teachers focus on real life issues and emerging technologies.
4. The Board ensures that the appropriate allocation of financial and other resources supports the quality learning program and the innovative nature of CSS. Resource distribution is determined by the school staff and adjusted throughout the year with due consideration of input from stakeholders. The Board oversees these processes and seeks supplemental resources as required.
5. Individual professional development needs are met as teachers interact and share in a professional learning community.
6. Through the mandate of its charter, CSS serves a diverse population of students with different abilities, aptitudes and learning styles. CSS is known for its welcoming atmosphere and for respecting the unique history of everyone who is part of the school family.
7. CSS serves as a model of innovation in education. Built around a framework of problem-based teaching, we find effective new ways to help students learn and understand the world around them. We are prepared to experiment and find new ways to help students understand how to use emerging technologies. In addition, we are always searching for ways to improve how we evaluate student progress, administer and manage the school, communicate with stakeholders and share our knowledge with others.

Mission

The CSS mission is: *to improve student learning by providing a special focus on science and mathematics in an environment in which learners strive to become ethical leaders who find motivation and excitement in discovering and forging connections within and among the sciences, mathematics, the arts and the humanities.*

At the Calgary Science School, "IT'S NEVER JUST AN ORDINARY DAY"

Principles

CSS abides by the following principles:

- Honesty
- Dedication
- Fairness
- High ethical standards
- Perseverance
- Valuing diversity
- Accountability
- Continuous improvement
- Service
- Academic excellence

Vision Statements with Measures/Indicators

The Board of the Calgary Science School Society feels strongly that Vision statements, in order to come to reality, must be supported by measures and indicators. The statements developed by the Board are included below. Where appropriate, the measures were incorporated into the Goals, Outcomes and Measure in this plan.

1. CSS provides an interactive and fertile environment for the dynamic exchange of ideas among our stakeholders (students, parents, teachers and administrators) and the educational community at large.

Measures/Indicators:

- Number of subscribers to the 'Community at Large' newsletter
- Number and extent of outreach activities
- Number of hits on the website
- Number of parents working on the school's various committees
- Number of collaborative meetings related to problem based learning

2. Students demonstrate the capacity to become life long learners through commitment to learning and by exhibiting critical and creative thought, service to others and strong organizational skills.

Measures/Indicators:

- Results of authentic assessment of problem based learning
- Percentage of students involved in extracurricular activities
- Percentage of students that complete homework and assignments
- Number of students involved in the community

3. Through a problem-based approach to curriculum and a variety of rich, off-site experiences students are excited, engaged and empowered. Within our school and beyond its walls, our teachers focus on real life issues and emerging technologies.

Measures/Indicators:

- Teacher assessment of student participation in problem-based lessons
- Feedback from student surveys that focus on problem-based learning experiences
- Number of opportunities for student involvement
- Number & length of field trips
- Cutting edge use of technology
- Student turnover

4. The Board ensures that the appropriate allocation of financial and other resources supports the quality learning program and the innovative nature of CSS. Resource distribution is determined by the school staff and adjusted throughout the year with due consideration of input from stakeholders. The Board oversees these processes and seeks supplemental resources as required.

Measures/Indicators:

- Level of teacher satisfaction with fund allocation
- Level of teacher involvement in the budgeting process
- Individual professional development needs are met as teachers interact and share in a professional learning community

5. Individual professional development needs are met as teachers interact and share in a professional learning community.

Measures/Indicators:

- Number and quality of structured professional development opportunities available to staff
- Innovative teaching practices and programs
- Amount and quality of teamwork
- Multidisciplinary partnerships
- Number of outreach initiatives
- Quality of teacher professional growth plans

6. Through the mandate of its charter, CSS serves a diverse population of students with different abilities, aptitudes and learning styles. CSS is known for its welcoming atmosphere and for respecting the unique history of everyone who is part of the school family.

Measures/Indicators:

- Number of teacher adaptations to curriculum and surroundings
- Number of extracurricular programs
- Number of electives
- Feedback from student surveys that focus on our ability to accommodate diverse skills and learning needs
- The number of multicultural events that celebrate diverse cultural and religious backgrounds

7. CSS serves as a model of innovation in education. Built around a framework of problem-based teaching we find effective new ways to help students learn and understand the world around them. We are prepared to experiment and find new ways to help students understand how to use emerging technologies. In addition, we are always searching for ways to improve how we evaluate student progress, administer and manage the school, communicate with stakeholders and share our knowledge with others.

Measures/Indicators:

- Results of teachers survey to determine their views of the school as a place of innovation
- Identification of CSS generated ideas that appear in classrooms in other districts
- Number of authentic assessment strategies developed and used by staff
- Number of students on the waitlist
- External evaluations determine the effectiveness



V

CSS Profile

CSS serves students from all areas of Calgary. We continue to have a rich cultural mix of students that reflects the diversity in the city of Calgary. We value this diversity and the strength it adds to our programs. Our population is made up of approximately 1/3 girls and 2/3 boys. In September 2006, we will achieve our maximum enrolment of 600 students in Grades 4 through 9, with 35 teaching staff. There are four classes at each grade level.

At CSS, we engage students in real-world tasks that honor methods of inquiry central to the core disciplines of mathematics, science, and the humanities. We encourage students to actively explore their environments and provide many opportunities for both day trips and camping trips. A technology-rich environment allows students easy access to timely information, powerful tools to work through problems and diverse options for communicating the results of their investigations. As students work through various problems, we help them develop necessary communication and project management skills and help them understand the impacts of their actions in the world.

As part of our mandate, CSS continues to reach out to other educators in Calgary, our province, other parts of Canada and the world. Our teachers have given numerous presentations to educators from other schools and we regularly host visitors who are interested in learning from and with us as we seek to stay on the cutting edge of educational innovation. We maintain connections with the ATA through service on specialist councils, executive councils and conference participation. We are also committed to supporting pre-service teacher education. To that end, each year we host a cohort of MT students from the University of Calgary and a number of students from Mount Royal College. Last year we hosted our first conference and we plan to make this an annual event. These outreach activities are a significant part of the culture at CSS.



VI Goals, Outcomes, Measures & Targets

Accountability Pillar measures from Alberta Education are identified in bold/italics print and in the charts in Goals 2, 3 & 4.

Goal 1

Engage students in relevant inquiry-based experiences that honor the interdisciplinary nature of knowledge and understanding.

Outcomes	Measures	Targets
<ul style="list-style-type: none"> Teachers foster problem-based learning (PBL) in their classrooms 	<ul style="list-style-type: none"> Number of teachers who self-assess at the “accomplished” level in each of the 9 categories of our teacher inquiry rubric (available on the CSS website) Number of students who respond “often” to question 1 on the student inquiry survey. (I have opportunities at school to explore real-life problems and issues) 	<ul style="list-style-type: none"> Baseline TBD using June survey results
	<ul style="list-style-type: none"> TPGPs aligned with inquiry-based learning. 	<ul style="list-style-type: none"> Teachers review TPGPs at least three times per year
	<ul style="list-style-type: none"> Number of times teachers book mentors from The Galileo Educational Network Number of teachers who take advantage of the professional improvement assistance program 	<ul style="list-style-type: none"> Teachers will book 70 days with Galileo mentors (2005/2006: 67 days)
	<ul style="list-style-type: none"> Consistent application of assessment criteria: development of specific descriptors for inquiry in math and science available on the CSS website 	<ul style="list-style-type: none"> Baseline TBD using June 2007 report card data
<ul style="list-style-type: none"> Student learning is improved through regular involvement in relevant PBL experiences. 	<ul style="list-style-type: none"> Ability of students to use critical and creative thought to solve problems within academic disciplines (number of students achieving 4s in inquiry on the report card rubric available on the CSS website) Ability of students to enhance community and resolve conflict (number of students achieving 4s in enhancing and supporting community on the report card rubric available on the CSS website) 	<ul style="list-style-type: none"> Baseline TBD using June report card data
<ul style="list-style-type: none"> Students attain high standards of prescribed curriculum outcomes in a rich and challenging environment 	<ul style="list-style-type: none"> Number of students achieving the standard of excellence on PATs 	<ul style="list-style-type: none"> 50% of CSS students will achieve the excellence level in the PATs (Provincial targets from 17-25%)
	<ul style="list-style-type: none"> Percentage of students achieving 4s in inquiry and knowledge (report card rubric available on the CSS website) 	<ul style="list-style-type: none"> Baselines TBD using June report card data

<ul style="list-style-type: none"> • Improved student learning through the effective use of information and communication technology 	<ul style="list-style-type: none"> • Effectiveness of 1:1 computer pilot project (Grade 6) 	<ul style="list-style-type: none"> • Measure TBD in collaboration with The Galileo Educational Network
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Strategies

PD Plan

- Employ 0.4 FTE PD/Outreach coordinator
- Implement professional improvement assistance program (see Appendix D).
- Design PD Fridays around teacher needs (as identified in PD survey)
- Use teacher inquiry rubric (Appendix A) to guide planning and reflection
- Provide opportunities for regular review of the teacher inquiry rubric
- Maintain connection with The Galileo Educational Network (with support from AISI, Cycle 3)
- Maintain connection with the University of Calgary
- Maintain mentoring program / new staff orientation to assist teachers new to inquiry-based learning (with support from AISI, Cycle 3)
- Set aside regular time to review and share TPGPs (e.g. at department meetings)
- Provide opportunities for all staff members to have input in the formulation of the school education plan

Inquiry

- Develop connections with experts in various disciplines
- Continue extended outdoor experiences at all grade levels to provide students with a base of rich, common experience
- Use cutting-edge technology to investigate real issues/problems
- Maintain multi-graded, inquiry-based electives in Grades 6-9
- Pilot 1:1 technology initiative

Assessment

- Develop specific descriptors for inquiry in math and science (with support from AISI, Cycle 3)
- Work with parents to develop common understanding of rubric criteria (assessment committee, within each class)

Goal 2

Excellence in Learner Outcomes

Outcomes	Measures	Targets
<ul style="list-style-type: none"> Learners demonstrate high standards 	<ul style="list-style-type: none"> Percentage of students achieving the excellence and acceptable level of achievement in PAT's in Grades 6 and 9 	<ul style="list-style-type: none"> See Table 1 and Goal 1
	<ul style="list-style-type: none"> Number of students achieving 4s in inquiry (see Goal 1) 	<ul style="list-style-type: none"> Baselines on documents from AB Education Baseline TBD using June report card data
<ul style="list-style-type: none"> Learners are well prepared for citizenship 	<ul style="list-style-type: none"> Degree to which students engage in real-world problems and make real contributions Percentage of students who participate in extracurricular activities in CSS Number of school-sponsored community service activities 	<ul style="list-style-type: none"> Baselines TBD using June survey results (teacher inquiry rubric; see Appendix A) Baselines TBD from school records and the Charter Based Accountability Framework
	<ul style="list-style-type: none"> Percentage of teachers, parents and students who are satisfied that students model the characteristics of active citizenship 	<ul style="list-style-type: none"> Baseline 2004: 80% (overall average) Actual 2005: 86.6% (overall average) Actual 2006: not available yet Target TBD
<ul style="list-style-type: none"> Learners are well prepared for lifelong learning 	<ul style="list-style-type: none"> Percentage of teachers, parents and students satisfied with preparation for lifelong learning (required for K-9 charter schools) 	<ul style="list-style-type: none"> 95% of teachers indicated that the problems students study pertain to real life situations either most of the time or some of the time. 91% of teachers reported that students have choice over problems to study some of the time or most of the time (14% indicated most of the time). 86% of teachers reported that they utilize student self-assessment most of the time or some of the time (9% indicate most of the time). 61% of respondents (including parents and teachers) agree that high school graduates demonstrate the skills, knowledge and attitudes necessary for lifelong learning. <p>* Targets are based on only one year of data.</p>

<ul style="list-style-type: none"> Learners are well prepared for employment 	<ul style="list-style-type: none"> Percentage of teachers and parents who agree that students are taught attitudes and behaviours that will make them successful at work when they finish school. 	<ul style="list-style-type: none"> 95% of teachers indicated that the problems that students study pertain to real life situations either most of the time or some of the time. 91% of teachers reported that students have choice over problems to study some of the time or most of the time (14% indicated most of the time). 86% of teachers reported that they utilize student self-assessment either most of the time or some of the time (9% indicate most of the time). 83% of respondents agree that students are taught the attitudes and behaviors that will make them successful at work when they finish. <p>* Targets are based on only one year of data.</p>
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Strategies (see Goal 1)

Table 1: Provincial Achievement Test Results - Trend Data and Targets for Grade 6

Acceptable/Excellence							
	Actual 2000/2001	Actual 2001/2002	Actual 2002/2003	Actual 2003/2004	Actual 2004/2005	Targets 2005/2006	Targets 2006/2007
Science	100/50	100/53.1	100/54	99/68	100/60.6	100/55.9	100/56
Math	97.9/62.5	98/44.9	100/50	97/64	100/59.2	99/51.4	100/55
Social Studies	100/64.6	100/51	100/69.4	100/63	99/42.4	99.7/54.3	100/55
Language Arts	100/27.1	100/57.1	100/35.4	99/38	99/25.3	99.7/39.3	100/40

Table 2: Grade 9 results on Provincial Achievement tests (2005-2006 Targets are based on two years of data.)

Acceptable/Excellence			
	Actual 2003/2004	Actual 2004/2005	Target 2005/2006
Science	100/50.0	98/52	99/51
Math	98/64.0	92/48	95/56
Social Studies	100/66.0	98/52	99/59
Language Arts	100/42.0	100/36	100/39

Goal 3

CSS will provide high quality learning opportunities for all

Outcomes	Measures	Targets
<ul style="list-style-type: none"> The education system meets the needs of all learners, society and the economy 	<ul style="list-style-type: none"> Level of parental satisfaction with the program at CSS 	<ul style="list-style-type: none"> Baseline 2004: 89.8% Actual 2005: 92.4% Target: 90.0%
	<ul style="list-style-type: none"> Teacher parent, and student satisfaction with the overall quality of basic education in Alberta 	<ul style="list-style-type: none"> Baseline 2004: 91.0% Actual 2005: 94.5% Target: Maintain current level
	<ul style="list-style-type: none"> Teacher, parent and student satisfaction with the opportunity for students to receive a broad program of studies including fine arts, career, technology and health and physical education 	<ul style="list-style-type: none"> Baseline 2004: 75.5 % Actual 2005: 76.4%
	<ul style="list-style-type: none"> Teacher, parent and student satisfaction with services for students in schools (eg. academic counseling, career counseling, library services) 	<ul style="list-style-type: none"> Baseline to be established in 2006/2007
	<ul style="list-style-type: none"> Student Computer ratio 	<ul style="list-style-type: none"> Maintenance of a minimum of 3:1 student to computer ratio, with the addition of 1:1 in Grade 6
<ul style="list-style-type: none"> Schools are safe and caring 	<ul style="list-style-type: none"> Teacher, parent, and student agreement: that students are safe at school, are learning the importance of caring for others, are learning respect for others, and are treated fairly at school 	<ul style="list-style-type: none"> Baseline 2004: 70.3% Actual 2005: 96.7% Target: Maintain 2005 level
<ul style="list-style-type: none"> Children at risk have their needs addressed through effective programs and supports 	<ul style="list-style-type: none"> Teacher, parent and student satisfaction with services for children in schools 	<ul style="list-style-type: none"> Baseline 2004: 70.3% Actual 2005: 86.7% Target: Maintain 2005 level
<ul style="list-style-type: none"> The school treats students as partners in the democratic process 	<ul style="list-style-type: none"> Number of opportunities for students to provide leadership and have a voice in decision making 	<ul style="list-style-type: none"> Target to be determined from school records

Strategies**CSS Learning System Meets Needs**

- Continue electives in Grades 6 to 9
- Provide opportunities to recognize and celebrate the cultural diversity that exists within our school community (e.g. Peace Festival, Amazing Race Day etc.)
- Make bursaries available to anyone who can demonstrate need
- Collect information from parent surveys regarding parent satisfaction with the CSS program
- Adapt school and program to allow universal access to activities for students with medical or physical conditions
- Employ a full time educational technologist to help effectively utilize the state of the art technology in the school in support of student learning
- Involve staff in the processes regarding allocation and utilization of budget monies in order to provide high quality learning opportunities for all
- Collect information from students' surveys regarding student satisfaction with their access to equitable and diversified learning experiences at CSS
- Continue to work on achieving a better gender balance in our student population

Safe and Caring School / Special Needs Met

- Utilize the guidance and student health and safety policies and procedures in addressing the needs of the school community
- Continue the development of a counseling and guidance program to address the needs of the school community
- Maintain staff awareness of critical incident management procedures
- Ensure that referrals are made to the Calgary Rocky View Student Health Partnership when necessary and appropriate
- Ensure that referrals are made to external practitioners for educational or psycho-educational assessment as required
- Administer a school climate survey to all students as a means of determining the degree of safety, caring, fairness, and belonging felt by each student

Democratic School

- Further develop processes to involve students in decision-making
- Continue student leadership initiatives at all grades
- Develop systems for more clearly hearing student voice (electronic drop box on network and suggestion box placed outside of the school office, inclusion in meetings, etc.)
- All Grade 9 students participate in leadership program
- Look into feasibility of student representation on school council
- Student voice is actively sought whenever appropriate

Goal 4**Highly responsive and responsible charter school**

Outcomes	Measures	Targets
<ul style="list-style-type: none"> Improved results through effective working relationships with partners and stakeholders 	<ul style="list-style-type: none"> Percentages of teachers and parents satisfied with parental involvement in decisions about their child's education 	<ul style="list-style-type: none"> Baseline 2004: 77.8% Actual 2005: 86% Target: TBD
	<ul style="list-style-type: none"> Number of parent information sessions Number of parents on ad hoc and standing committees 	<ul style="list-style-type: none"> Five parent info sessions per year
<ul style="list-style-type: none"> The charter school demonstrates leadership and continuous improvement 	<ul style="list-style-type: none"> Number of presentations given by CSS staff Number of visitors from other school systems 	<ul style="list-style-type: none"> Target to be determined. See Outreach report on the CSS website
	<ul style="list-style-type: none"> Number of times staff access Galileo 	<ul style="list-style-type: none"> See Goal 1
	<ul style="list-style-type: none"> Percentage of teachers and parents indicating that their charter school has improved or stayed the same the last three years 	<ul style="list-style-type: none"> Baseline 2004: 77.3% Actual 2005: 81.5% Target: TBD
	<ul style="list-style-type: none"> Percentage of teachers who agree that professional development opportunities made available through the charter school are focused on priorities and effectively address their ongoing professional development needs 	<ul style="list-style-type: none"> Data to be gathered in 2006/2007
<ul style="list-style-type: none"> Improved community satisfaction with education. Required Provincial Priority for Improvement for Charter School Plans) 	<ul style="list-style-type: none"> Level of parent and student satisfaction as measured with local and provincial surveys 	<ul style="list-style-type: none"> Baseline 2004: 91% Actual 2005: 94.5% Target: 95%

Strategies**Communication**

- Use school website, newsletters and other media to facilitate communication
- Maintain communication with Student Health Initiative to ensure that the information comes to the school and is available to staff in supporting students and families
- Expand the role of the communication coordinator to facilitate communication amongst stakeholders
- Implement Communications Plan

Parent Involvement

- Increase the involvement of Board and School Council members in the formulation of the school education plan
- Maintain parent involvement on school committees
- Work with the School Council to continue their involvement in achieving the goals of CSS
- Host a series of Parent Information evenings to enhance their involvement in the school and in the education of their children

Pre-Service Education/Professional Development

- Host a cohort of MT students
- Host case classes in the school
- CSS liaison, partner teachers, and university liaison co-plan case classes
- CSS teachers take part in case classes
- Provide opportunities for student teachers take part in PD Fridays
- Host Mount Royal College volunteers; Host whole-class visits from Mount Royal College education classes
- Maintain partnership with The Galileo Network; including support for our work with student teachers
- Develop partnerships with outside experts through developing a brochure to distribute to an identified group of experts
- Host a lunch meeting of experts and teachers in September
- Pilot expert-teacher connections

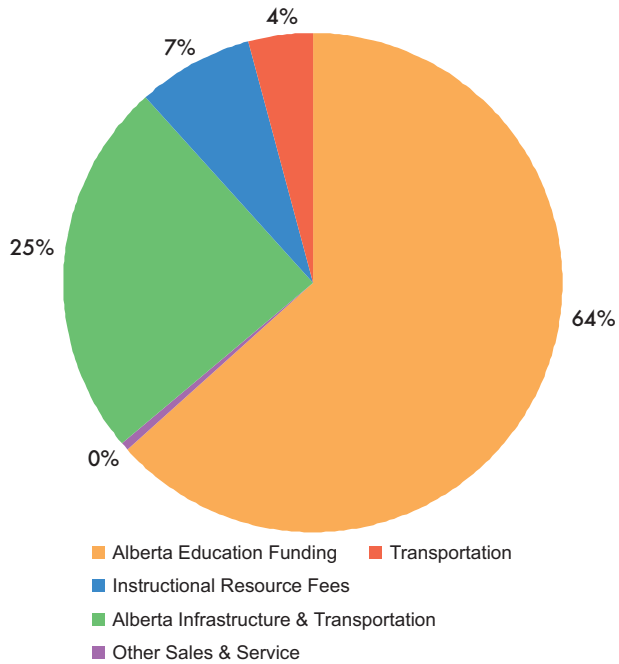
Workshops/School Visits

- Maintain our membership in the Alberta Association of Public Charter Schools
- Continue outreach to other schools and systems
- Continue to host a CSS conference on inquiry based learning

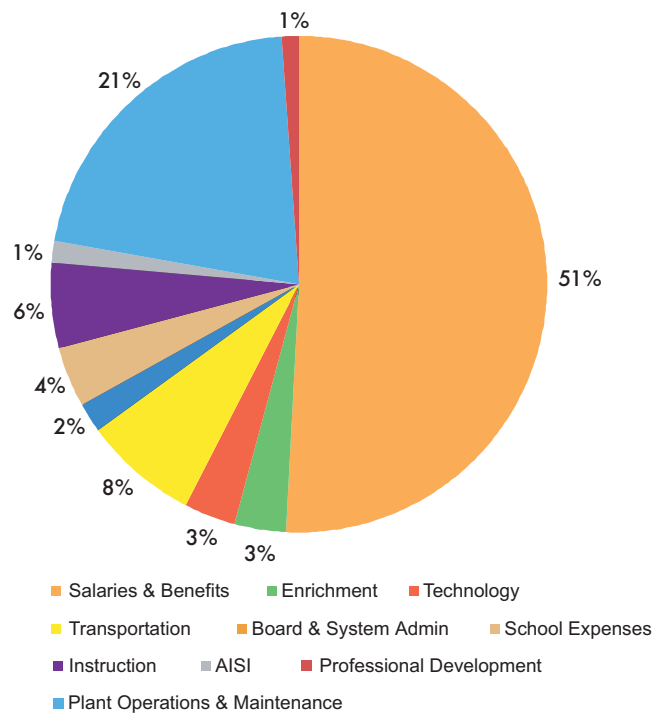


VII Financial Summary

2006/2007 Revenue



2006/2007 Expenditures



Detailed information on the annual budget may be obtained by contacting the Secretary-Treasurer at 282-2890 ext. 121.



1

Capital Plan 2006-2009

The Calgary Science School has recently received our Charter renewal for 2004/2005-2009/2010. This capital plan is intended to forecast the facility requirements for the program improvement and expansion needs of our school over this Charter period. We continue to be satisfied with our location at Clem Gardner School. Our move to this location in the fall of 2002 has enabled us to increase our enrolment to 350 in 2002/2003, 450 in 2003/2004 and 500 in 2004/2005. In conjunction with CSS being approved for a new five-year charter, the Board decided to expand to 550 students in 2005/2006 and continues to explore the various program and facility modifications that would be required to make the accommodation of 600 students possible (100 at each grade level 4-9). The following priorities have been identified to meet the projected capital needs of our school over the next three years and into the foreseeable future.

Priority # 1

Project: Modify and expand various interior storage areas to enable all classroom spaces to be used for instruction.

Estimated cost: \$25,000

Timeline: 2005/2006

Priority # 2

Project: Install all-weather protection for the courtyard entry area under the library to better enable our school to meet Alberta Learning's expectation of Quality Daily Physical Activity for all students. By developing this multi-purpose area we would be maximizing the use of space available within the footprint of our building. This would also enable us to meet the growing expectations for the educational programming needed for our expanding student population..

Estimated cost: \$20,000 - \$50,000

Timeline: 2005/2006

Priority # 3

Project: Purchase and install new playground equipment to replace present equipment on the school playground. The CBE playground inspector has recently inspected our present playground. His report identifies a concern re: the continuing deterioration of the existing playground equipment. The report indicates that the present equipment should be removed within the next two years. Its removal would be part of this project.

Estimated cost: \$150,000 - \$200,000.

Timeline: 2006/2007

Priority # 4

Project: Continue the ongoing maintenance and upgrading required to overcome the following deficiencies in the building. These improvements are needed to bring the quality of the learning environment to an appropriate standard for students and staff.

1. Upgrade lighting in classrooms, library and hallways to meet modern lighting standards.

Estimated cost: \$15,000

2. Continue the installation of linoleum to replace floor tiles that are lifting in the Science wing and other locations throughout the floor. Upper floor was completed previously.

Estimated cost: \$70, 000

3. Replace library carpet which is deteriorating and staining student clothing.

Estimated cost: \$25,000

4. Replace humidifier trays that are un-operable under library and Science wing furnaces.

Estimated cost: \$20,000

Timeline: 2005/2006

**For further details please contact Jim Toews, Superintendent
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2 Technology Plan 2006/2007

Introduction

This plan is designed to align with the CSS mission statement and the general education goals outlined by Alberta Education. This plan covers the first year of the school’s new three-year Technology Plan and addresses opportunities and changes occurring at CSS.

Role of Technology

Technology continues to be an integral part of the learning environment at CSS. We continually strive for innovation in order to be leaders in effectively implementing educational technology. Our theme for the 2006/2007 school year is Personalized Learning. Our focus is to provide everyone within the CSS school community with the necessary tools and assistance they require in order to support their individual goals and learning needs.

Administration	<ul style="list-style-type: none"> • Assessment • Collaboration • Communication 	<ul style="list-style-type: none"> • File sharing and saving • Presentations • Research
Teachers	<ul style="list-style-type: none"> • Assessment • Collaboration • Communication • Curriculum Integration 	<ul style="list-style-type: none"> • File sharing and saving • Presentations • Research • Lesson Planning
Students	<ul style="list-style-type: none"> • Collaboration • Communication • Project creation 	<ul style="list-style-type: none"> • File sharing and saving • Presentations • Research
Parents	<ul style="list-style-type: none"> • Communication 	<ul style="list-style-type: none"> • Information sharing

Professional Development

The professional development component of this plan requires teachers to develop and demonstrate the necessary skills to implement the Technology Integration Curriculum according to Alberta Education’s timelines. Teachers are encouraged and supported in their implementation of the curriculum objectives through their Teacher Professional Growth Plans and supervision and evaluation processes available to them. This plan requires that staff hiring practices ensure that teachers and support staff new to CSS have the necessary foundation skills for implementing the curriculum objectives relative to their teaching assignments. (*see School-Wide Technology Based Goals*)

In order to assist and enhance the computer-based skills of students and staff, a half-time educational technologist was hired during the 2004/2005 school year. This individual was given dedicated time to assist the school community with technology integration. Due to an increased student population and staff needs, the 2006/2007 school year will see CSS increase the dedicated time of their educational technologist.

Maintenance

At the present time, CSS does not have in-house expertise (or personnel) to develop and maintain the school’s computer network. During the 2005/2006 school year, Office Solutions Inc. was contracted to develop and maintain the technology at CSS. We look to maintain this relationship throughout the 2006/2007 school year.

Details and Critical Issues

Acceptable Use Policy

As a condition of access to CSS's computer facilities, all users shall abide by a school-developed "Contract for use of Computers and Computer Networks". This contract will be revised for the 2006/2007 school year.

Increasing Enrolment

A 1:3 ratio of computers to students must always be maintained.

2004/2005 Grades 4-9 (approx. 500 students)

2005/2006 Grades 4-9 (approx. 550 students)

2006/2007 Grades 4-9 (approx. 600 students)

Opportunities for the 2006/2007 School Year

Personalized Learning Initiative

CSS secured a \$150,000 grant from Alberta Education to implement a Personalized Learning Project involving the Grade 6 students and teachers of the 2006/2007 school year. Students will be provided with a personal laptop they can take home on evenings and weekends. Teachers will be provided with professional development and the technology to support this project. These laptops will remain with this group of students until they graduate from CSS at the end of Grade 9. During this four-year study, CSS, Galileo and Alberta Education will evaluate the effectiveness of laptop technology in enhancing the education of Grade 6-9 students. (*see Personalized Learning Proposal*)

Video Conferencing

CSS obtained a \$30,000 grant from Alberta Education to develop our video conferencing potential. This money will be spent to improve the infrastructure and hardware necessary to make video conferencing possible. (*see Video Conferencing Proposal*)

Issues and Resolutions for the 2006/2007 School Year

Photocopier

Our school's increasing population places a large strain on our digital Ricoh photocopier. Paper use has increased dramatically, surpassing the capabilities of the machine. Due to limitations for the product of its time, staff using Apple computers are unable to utilize some of the features and capabilities they are requesting (eg. email and scanning).

Resolutions:

1. Research new production models in order to purchase a new photocopier that is Mac compatible and able to keep up with the increased pages we require per month. Possible photocopiers include Ricoh, Konica-Minolta and Canon.
2. Move the Ricoh photocopier upstairs for it to become our secondary machine.
3. Provide more professional development opportunities for staff in order to encourage them to utilize alternative methods to transfer data. These options include transferring files on the server, increasing the content present on the school website and displaying information through the use of classroom projectors.

Website

As more members of our school community obtain personal computers and have Internet access, the demands and expectations for our school website have grown. Initial conversations with parents have shown that not everyone is accessing the information present on the school website because of the difficulties they have had logging into the password protected area.

Resolutions:

1. Tech committee will form a focus group to re-evaluate the effectiveness of the CSS website and develop a more user friendly and functional front-end.
2. Utilize the expertise of Vern Begg from the communications committee.
3. Examine the possibility of developing an 'update to server' automator.

Student Profiles

As teacher and student proficiency with technology integration increased, we noticed a strain on the carrying capacity of our network. Multimedia rich projects have increased bandwidth concerns and login speeds have lengthened.

Resolutions:

1. With the assistance of Office Solutions Inc. and Apple Canada, we look to enhance the efficiency of our network by modifying hardware and the configuration of our servers and student profiles. Initial recommendations from these two companies include:
 - a. Reconfiguring our servers and RAID
 - b. Modifying the configuration of our servers to eliminate redundant DNS settings.
 - c. Eliminating roaming profiles and introducing a generic login for students to utilize.

Personalized Laptop Initiative

The introduction of personal laptops to our Grade 6 students will lead to a new set of opportunities for our school. This initiative will require the introduction of new policies and guidelines for students, parents and teachers.

Resolutions:

1. Creation of a new Acceptable Use Policy complete with school expectations and consequences for breaching the rules.
2. Development of a series of parent workshops in order to educate and support home users on the opportunities and possible concerns for home laptop use.
3. Implementation of a school based insurance program to cover lost, stolen or damaged laptops.
4. Provide more PD opportunities for staff to promote efficient and appropriate use of technology for student learning.

Backup System

At this time, CSS does not have all of the hardware necessary to properly protect and backup all of the files that are being saved on the servers. Much of the content on the different shared point are disorganized and the same content is being saved to multiple locations.

Resolutions:

1. The tech committee will examine the content being placed on the server and prioritize the importance of the content being saved by the different groups using the hardware (students, teachers and administration)
2. New hardware will be purchased to properly protect important digital information.
3. Policies/guidelines will be created to limit the amount of content that different groups are able to transfer to the server.
4. Students, teachers and administration will be trained on the hierarchy of the server-shared points. Everyone will learn where and how to save their digital archives.

Communication with Alberta Education

Throughout the 2005/2006 school year, our front office has had difficulties effectively downloading and uploading files required by Alberta Education. Our front office is utilizing Mac computers that are not fully compatible with the technology requirements of Alberta Ed.

Resolutions:

1. Provide all front office staff with Windows PCs that meet the communication requirements of Alberta Ed.

Communication between Students and CSS

Many students do not have a digital means of sending and receiving information.

Resolutions:

1. CSS is committed to providing an email account to all CSS students for the 2006/2007 school year.

Classroom Computers

Each classroom was provided with two PC computers for the start of the 2005/2006 school year. The purpose of these machines was to provide students with Internet and server access to support the projects and activities occurring in the classroom. These computers include PCs from Computers for Schools and old PCs that have been evergreened from our previous PC computer lab. The age of these machines combined with modern software requirements have made it difficult to effectively connect and integrate these computers into our existing server setup. This has resulted in computers that have not properly worked throughout the school year.

Resolutions:

1. Teachers will be asked if they are interested in keeping the computers present in their classroom with the understanding that they will need to be reconfigured and in some cases replaced in order to enhance productivity.

Classroom Projectors

Installing classroom projectors within each classroom had a positive outcome for the 2005/2006 school year. It increased laptop use, tech integration and provided a new communication tool for students and teachers. As proficiency with this technology increased, teachers have requested extra capabilities.

Resolutions:

1. Projectors will be networked to enhance video-conferencing capabilities and allow for web-streaming of content.
2. We will continue to examine the role and potential of SmartBoards in the classroom to possibly expand the number of them within the school.
3. SmartBoard software will be installed on all teacher machines so that take advantage of this technology more often.
4. Examine the potential of wireless keyboards and mice in order to enhance SmartBoard integration.
5. Review peripherals such as ELMO to see if they have a place in our school environment.

Innovative Tools and Software

As technology changes and the PD of our staff increases, teachers are beginning to look for new tools and technology integration opportunities in order to enhance what is already occurring in the classroom.

Resolution:

1. Review the potential of podcasting in the classroom.
2. Allow teachers to take advantage of the video-conferencing opportunities we are beginning to set up in the school.

Possible School-Wide Technology-Based Goals

Goal 1

Students and teachers have access to technologies that best support the learning outcomes as defined in Alberta Education's Technology Integration Curriculum.

Strategies:

- a) Ed plan addresses the importance of school based technologies
 - i. 1:3 computer ratio
- b) Tech plan supports the acquisition of necessary technologies
 - i. The Tech plan 'drives' the technology budget

Goal 2

Professional development programs result in technologically-based, pedagogical practices that maximize learning opportunities.

Strategies:

- a) School professional development plans will reflect professional development activities that support technology integration, instruction, and learning practices.
- b) Provide staff with 'Quick Courses' and 'Technology Mentors' in order to develop technology based skills.

Goal 3

Technology integration practices meet and exceed the expectations and implementation timelines prescribed by the Alberta Education Information and Communication Technology Curriculum.

Strategies:

- a) Staff will be provided with a planning grid that links general and specific learner outcomes to the implementation schedule.
- b) Staff input

Goal 4

Students, teachers, and key partners will be able to measure their success in achieving the technology integration goals and objectives.

Strategies:

- a) Teachers will use the technology integration scoring guides defined in the Illustrative Examples to Accompany Information and Communication Technology Interim Program of Studies to inform student learning and teaching practices.
- b) Staff input

Goal 5

Teachers are able to extend innovative practices in problem-based learning using enhanced technology.

Strategies:

- a) Teachers (and students) will have access to the hardware and software necessary to promote technology integration.
- b) Teachers will receive appropriate professional development opportunities focusing on the enhancement of their technology related skills.
- c) Staff input

Emerging Technologies in the 21st Century Calgary Science School Proposal

1) Project Title

Calgary Science School – Personalized Learning Initiative

2) Emerging Technology Areas

- (1) Wireless Local Area Networks and Mobile Devices
- (3) Web-based Collaboration Tools

3) Applicant Information

a) Calgary Science Charter School

b) Scott Petronech

Educational Technologist

Calgary Science School

5915 Lewis Drive SW

Calgary, AB T3E 5Z4

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- c) The Calgary Science School has solidified partnerships with all companies and organizations necessary to implement this project. We have also received approval from school administration to secure all resources (human resource, hardware and software, technical support and professional development) to implement our Personalized Learning Initiative.
- d) Letter of support from Board – Appendix A
Letter of support from Co-Superintendents – Appendix B
- e) Calgary Science School
 - i) Ron Sweet (Principal) – Will oversee entire project, receiving weekly updates (formal and informal) from the school's Educational Technologist.
 - ii) Scott Petronech (Educational Technologist) – Main contact for this project. Will act as a liaison between all necessary parties. Main role will be to assist students and staff with technology integration.

Galileo Education Network

- i) Brenda Gladstone (Chief Operating Officer) – Will oversee all of Galileo's contributions to the Calgary Science School. This will cover the areas of research and professional development.
- ii) Candace Saar (Galileo Mentor) – Will assist the Calgary Science School in obtaining all necessary professional development tools for participating staff and teachers. Candace will be responsible for the formal evaluation of this project.

Apple Canada

Trish Lee (Senior Manager Education & Training)

Stephane David (Education Sales Manager, Western Region)

Both individuals will work together to provide the Calgary Science School and Galileo Education Network with the personnel and expertise necessary for professional development, hardware, software and infrastructure support.

- f) Letter of support from Galileo – Appendix C
Letter of support from Apple Canada – Appendix D

4) Description of Proposed Project

The Calgary Science School in partnership with the Galileo Education Network and Apple Canada will implement a Personalized Learning Initiative to evaluate the educational benefits of wireless technology by providing a test group of students with 24-hour access to portable laptops. These students will have access to this emerging technology during a four year study. The educational benefits to these students and the entire school community will be monitored and analyzed in this multiple year pilot project.

The students targeted for this initiative are next year's grade 6 students of the Calgary Science School. This will result in a study containing 100 students and 10 teachers during its first year of implementation. This test group will have full access to personal wireless laptops from the Calgary Science School until they graduate from our middle school at the end of grade 9. All teachers associated with this group of students will have the support, assistance and tools necessary to take advantage of opportunities to integrate technology into their daily teaching practice.

The following are the Calgary Science School's Technology Based Goals that are reviewed and evaluated on a yearly basis:

- i) Students and teachers have access to technologies that best support the learning outcomes as defined by Alberta Education's Program of Studies.
- ii) Professional development programs result in technologically-based, pedagogical practices that maximize learning opportunities.
- iii) Technology integration practices meet and exceed the expectations and implementation timelines prescribed by the Alberta Education Information and Communication Technology Curriculum.
- iv) Students, teachers, and key partners will be able to measure their success in achieving the technology integration goals and objectives.
- v) Teachers are able to extend innovative practices in problem-based learning using enhanced technology.

Goals and Outcomes for

Students

- i) **Life-long learning opportunities** – Students will take ownership of their own learning as they are given guidance and direction in appropriate ways to utilize this technology. This involves not only being responsible for the physical hardware, but the ethical implications as well. Social, emotional and cognitive skills will be developed as students utilize technology to create, communicate and collect information in a digital world.
- ii) **Access to cutting edge technology** – Today's emerging technologies will be standard tools/resources that everyone will have access to in the future. These students will be able to begin utilizing these resources now.
- iii) **Transition from operation to application** – Technology use is often centred around skill development due to limited technological resources present in schools. Having access to technology for an extended period of time will allow students and teachers to apply this knowledge in a more meaningful manner, supporting authentic learning activities.
- iv) **Global connections** – This initiative will allow us to strengthen our ability to collaborate with global neighbors. Laptops and wireless technology will provide students with more opportunities to develop and participate in telecollaborative projects. At this time, we are developing a relationship with a network of schools from Serbia and Seattle. We are looking for

opportunities to link the students of our school with their own. Our proposal for a Personalized Learning initiative will help this to occur.

- v) **Strong Academic Program** – Calgary Science School implements a problem-based approach connecting students to real-world problems and situations. Personal laptops will be utilized to do more than engage students. Wireless technology will be used as a tool to enhance a rigorous academic learning environment, challenging students with a strong learning focus.

Teachers

- i) **Professional development** – Allowing teachers to be immersed in innovative technologies will allow staff to analyze their teaching practices in greater depth. It is important for our school community to understand that technology must be used as a tool to enhance what is already occurring in the classroom. More than this, teachers must make the pedagogical shift from operation to application when using technology. Personal laptops and wireless technology will provide us with another opportunity to develop an ideal classroom where students learn at their own pace yet collaborate to create something more dynamic than any one of them could imagine. In this classroom, students are passionate about learning, and teachers have the technological means to nurture that passion.
- ii) **Educational resources** – Inquiry-based learning is the primary focus of our learning community. Students and teachers identify and apply real-world problems and issues to the Alberta Program of Studies. This often results in learning opportunities that cannot be taught from a textbook. Our school utilizes experts from many different sources (Galileo, University of Calgary, Mount Royal College, Alberta Distance Learning...), but it is difficult to bring experts into our school environment on short notice. A Personalized Learning initiative will allow us to access and take advantage of more educational opportunities.

Parents

- i) **Home access** – Adults and children will be provided with resources and technologies that they might not be able to afford or access otherwise.
- ii) **Computer training** – Parents will have access to a series of computer-based workshops to assist their children at home. These workshops will be skill and knowledge based and include topics such as: Internet Safety and Appropriate Use, Software Skill Development (Word Processing, Web Page Design, Editing Digital Media...). This will also allow our parents to further embrace technology integration.
- iii) **Support for School Programs** – Not all parents are fully aware of the objectives, products and outcomes students develop within a school setting. Portable laptops will allow each student to create a digital portfolio of their own unique educational experience.

Outreach

- i) **Student teachers** – Calgary Science School has a partnership with the University of Calgary, allowing a full cohort of student teachers to work within our school community during their practicum. These university students will have the opportunity to observe and actively participate in this Emerging Technologies endeavor.

- ii) **School-based workshops** – One of our school's mandates is to provide professional development opportunities to other schools and teachers throughout the Province. Last year, CSS staff presented over 20 workshops, reaching approx. 700 teachers, parents and students. Participating in a technology-based project such as a Personalized Learning Initiative will allow us to expand our workshop and information session topics using qualitative and quantitative information from our research and evaluation components.

Teaching / Learning Methods Involved

As a school that focuses on Inquiry-based learning, our students spend a large portion of their day examining and developing proposals and solutions to authentic issues and problems. This problem-based approach encourages hands-on learning and empowers our school community to network, ask questions and present information to different community groups. Providing students with the laptops and infrastructure necessary to utilize wireless technology whenever necessary will allow us to enhance and facilitate these lifelong learning skills in the students, teachers and parents of our school community.

Hardware and Software Employed

Infrastructure

- i) At this time, Calgary Science School is utilizing Apple Airport Extreme technology (54Mbps 802.11g) to create a wireless network. In order to accommodate another 100 laptops using wireless technology to access the school server, more base stations will be required in order to create a 'dense' signal strength.
- ii) During the 2005-2006 school year, Calgary Science School installed NEC digital projectors in each classroom. These projectors are capable of being networked and controlled through the school server, allowing laptops to transmit a digital signal and project it onto a screen. In order to effectively utilize wireless laptops with these projectors, category 5e wire will be installed to connect classroom projectors to our existing server.

Hardware

- i) 100 students will be provided with 14" Apple iBooks containing a 1.42GHz PowerPC G4 processor with the capability of burning CD and DVD media.
- ii) Students and teachers will utilize 4 Laptop Charging Carts to store and charge laptops when not in use.
- iii) 4 SmartBoards will be installed in the grade 6 homerooms
- iv) 100 students will be provided with an extra power-charging device in order to utilize laptop at home.
- v) 100 students will receive a protective laptop case to transport their laptops to and from school.
- vi) An email server will be configured in-house, allowing all students to obtain a Calgary Science School email account accessible from home and school.

Software

- i) Laptops will be installed with software focused around productivity tools used for writing, composing, organizing, sorting, calculating, drawing, painting, and publishing. This will include (but not be limited to) Microsoft Office, Macromedia Suite 8 (Flash, Dreamweaver, Fireworks, Contribute and Flashpaper), iLife 05 (iMovie, iDVD, iPhoto, iTunes and Garageband),

iChat, Pages, Keynote, OmniGraffle, LegoMindstorms and Geometry Sketchpad.

Associated Research

Newmann, and others (2001) found that when teachers organize instruction around assignments that demand higher order thinking, in-depth understanding, elaborated communication connected to their lives beyond the classroom, learning improves. (Newmann, F., Bryk, A., and Nagaoka, J. 2001. "Authentic Intellectual Work and Standardized Tests: Conflict or Coexistence" Consortium on Chicago School Research.) A study, conducted by Newmann, Lopez and Bryk, of Chicago students in grades 3, 6 and 8 reported differences in academic achievement of at least 40 percentile points in both reading and mathematics when students were provided with high quality intellectual work compared with those doing work that merely required them to reproduce knowledge. Networked mobile technologies enable learners to connect to strong discipline expertise outside of the classroom as well as provide access to authentic audiences for the products and performances that they create. In addition computer technologies enable learners to demonstrate more elaborated forms of communication to express their findings and conclusions. Mobile technologies and wireless networks enable students to extend their communication skills in a variety of situations and contexts with audiences that extend well beyond the classroom.

Onsite face-to-face professional learning opportunities can also be extended for teachers through mobile networked technologies. These devices enable teachers to collaborate with colleagues and discipline experts to access "just in time" professional development support from mentors at anytime and place. Ongoing job embedded professional development support is vital for teachers who are attempting to create the types of knowledge building environments that require students to use technology well. Teachers and students will be provided with this support both onsite through the educational technology coordinator and online using their own mobile devices to access the professional support of the Galileo Network.

At the OECD/Canada/Alberta Conference on E-Learning in Post-Secondary Education held in Calgary in June of 2005, Don Tapscott made the following comments in his keynote address:

Outside the classroom, students live in a world where social and economic relationships are mediated by real-time, always-on, interactive communication networks that not only offer unprecedented choice and autonomy, but also create new forms of authority and require new kinds of responsibility from users. Inside the classroom, students too often are transported back to a world that has largely disappeared for members of their generation, at least in OECD countries – a world of limited choice, standardized products, and one-way communication flows. The key to closing the gap between the "broadcasting paradigm" that still dominates the classroom and the "interactive paradigm" that increasingly shapes social and economic life is to use technology to transform pedagogy, so that it fits the capabilities, needs and interests of the new students in developed countries – and the sheer numbers of young people and adults that constitute the largest generation of learners ever throughout the world.

Clearly there is a need for new images of teaching and learning to come forward to unseat the “broadcast paradigm” that Tapscott mentions. Tapscott is not alone in calling for learning that is more in alignment with the realities of the contemporary world. Eisner contends that life in a digital age requires a much broader definition of literacy and schooling experiences that enable these literacies to emerge:

Schools need to cultivate multiple forms of literacy... literacy that goes beyond our conventional notions of reading, writing, computational skill and numeracy. Literacy involves the ability to encode or decode meaning in any of the symbolic forms used in the culture ... Our lives are enriched by the ability to secure wide varieties of meaning. Schools that neglect some cultural forms, such as the arts, guarantee that they will graduate semiliterate students ... Different forms of representation evoke, develop, and refine the modes of thinking that contribute to the cultivation of what is broadly called mind. The school curriculum that excludes such resources neglects the development of mind to its fullest capacities. (The Enlightened Eye: Qualitative Inquiry and the Enhancement of Educational Practice, 2d ed. New York: Merril Publishing Company, 1997.)

Educators must be able to cultivate the multiple literacies that will enable students to thrive in a technologically advanced and networked world. Students live in a world that is already connected through e-mail, online communities, and resources where wireless networks and computing technologies are pervasive. Those students who are able to use these technologies to their best advantage will be the ones who will have the most success in this new wired world. Today's students must be provided with opportunities to use computer technologies and robust networks in the service of doing authentic intellectual work and representing knowledge in all of the different forms that digital technologies and their imagination make possible. As Breuleux (2001) points out,

Currently, there is a strong convergence of support for the social construction of knowledge - the idea that learning emerges from an active, collaborative process of constructing understandings, or knowledge. Therefore, current research on the use of ICT in schools targets questions of knowledge-building and collaboration such as; *Can ICT support more powerful, more complete experiences of collaborative knowledge building?*

The answer is yes, it can, if it integrates well-designed technologies in the context of meaningful, mindful inquiry projects, non-presentational pedagogies, with access to resources and tools, and adequate support for technological maintenance and pedagogical renewal. ~ Alain Breuleux (Breuleux, A. (2001). *Imagining the present, interpreting the possible, cultivating the future: Technology and the renewal of teaching and learning.* Education Canada, Vol. 41 (3).)

5) Technical Support

Our school has hired a Calgary-based technology support company to assist us with our technical needs. Office Solutions Incorporated has been contracted to maintain and optimize all software and hardware within our school environment. Apex Audio Visual has assisted us with the networking and installation of projectors and speakers in all classrooms. We have also fostered a relationship with Apple Canada. Technical engineers from their company work with us to

enhance our computer environment and make recommendations when we require hardware and software updates and acquisitions. All three of these groups will be brought in to act as consultants as we look to enhance our wireless infrastructure and prepare to integrate laptops into classroom studies.

6) Professional Development

In order for professional development to be effective it needs to be ongoing and job-embedded. The Calgary Science School has been working closely with members of the Galileo Educational Network for the past 2 years in face to face and online environments to design authentic intellectual opportunities for students. This year the professional learning in the school has focused more intentionally on assessment, particularly assessment that has been designed to improve learning. Teachers at the Calgary Science School have a long history of examining their own practice critically and there is an underlying expectation at this school that teachers work collaboratively with colleagues and experts to continue to improve their practice. A strong collaborative learning community of classroom teachers has emerged who are dedicated to pushing the envelope of classroom practice in order to improve the learning opportunities of their students. Given that teachers at this school have a long established tradition of looking at their own teaching and learning practices, CSS provides fertile ground as a site where new emerging technologies could be introduced and studied. The collaborative professional learning relationship that has already been established between the teachers at CSS and Galileo presents a solid framework for this pilot to build upon. Galileo has extensive experience in helping teachers, principals and school jurisdictions create high quality authentic intellectual work for students and documenting the changes in learning using a variety of multimedia formats. Extensive research by Newmann, Schlechty, Bereiter, Scardemalia, Clifford & Friesen and others point to the extraordinary gains in learning that may be achieved when students are provided with work that requires construction of knowledge, disciplined inquiry and that has value beyond school.

Teachers have personal laptops, a wireless network, and digital projectors. In addition they have the support of a full time onsite educational technologist who is able to assist the school community with technology integration. This individual will spearhead and coordinate this pilot in conjunction with the Professional Development and Outreach teacher at the school.

7) Leadership

Superintendents and school administrators will be involved at every stage of this project. In adopting an action research approach to documenting and studying this pilot, administrators will be invited to visit classes, talk to students, examine data as it is being collected, record observations and be updated on an ongoing basis regarding progress. Best practices in technology integration to improve learning will be captured throughout the pilot using a variety of multimedia formats which will then be shared with colleagues. As new images of learning emerge, they will be presented during professional development sessions and staff meetings to generate feedback and further discussion related to these mobile technologies and their pedagogical implications. Given that CSS is already a leader in terms of providing placements and rich learning experiences for cohorts of student teachers from the University of Calgary, there are additional opportunities for these best practices to be widely disseminated to a new generation of educators.

8) Evaluation and Research

We propose to adopt an action research approach to document the progress of this cohort of students and teachers throughout this 4-year pilot when learners have access to a wireless network and individual laptops. Students and teachers participating in this pilot will collect artifacts of their learning on an ongoing basis as the pilot progresses. Such artifacts may include student self-assessments, summative assessments, PAT scores at grade 6 and 9, samples of student work and written reflections. The PAT scores will be compared to the provincial averages in both the grade 6 and 9 years to determine if any significant learning gains have been achieved as measured on these standardized tests. These artifacts will help us to glean insights into the relationship of wireless LAN infrastructure and student access to laptops for enhancing teaching and learning.

Digital technologies such as digital still and video cameras will be used to document the process and tell the story throughout this pilot. The intent will be to implement a process where an ongoing feedback loop is introduced that will enable us to gather additional insights from colleagues, researchers and professional learning experts throughout the pilot. These digital clips will be offered up for discussion and feedback during professional learning days and regularly scheduled meetings at the school. This process will allow for ongoing assessment and continuous refinement of the work throughout the pilot.

Based on Eisner's work on multiple literacies and Gardner's work on multiple intelligences, teachers will be working closely with Galileo Network to design authentic intellectual learning experiences to cultivate these ways of knowing and elaborated forms of communication. Artifacts of this learning will be collected and shared to help further inform our understanding of student's access to networked technologies and their learning.

Digital stills and video footage will be used to capture and illustrate what learning looks like when students have access to contemporary tools to engage in authentic intellectual work and when the opportunity for high quality feedback can be obtained more quickly through the use of wireless networks and laptops.

We will also administer a survey to teachers and administrators each of the four years to determine their perceptions of achievement in a variety of areas.

9) Reporting

The evaluation and reporting of this initiative will be vital. The design and intent of the evaluation will be to summarize findings throughout the entire project so that it might help to inform future uses of wireless technologies and student computing devices. Galileo will be contracted to lead the data collection process, and write the interim and final reports with the help of the other educational stakeholders involved. The findings will be examined through an ongoing feedback process which will lead to further refinements to guide subsequent research directions and dissemination of best practices related to the wireless networks and mobile technologies to enhance learning.

The Calgary Science School's Educational Technologist and Galileo will work collaboratively with teachers following an action research process as they work with these new technologies to design authentic intellectual learning experiences for their students that cultivate multiple forms of literacy. The process for the

collecting and reporting baseline and other forms of data will also be established at this time.

During the next phase we will document the achievements of learners using digital technologies and written reflections. During the final phase, we will conduct focus group interviews with teachers, students and parents to gather additional insights that can be used to tell the story of this pilot.

One interim report will be presented to Alberta Education after Nov. 1, 2006 but before Jan. 15, 2007 (oral report with brief written summary).

One final written report will be presented to Alberta Education by Nov. 30, 2007 accompanied by a multimedia representation of the work.

10) Sustainability

The Calgary Science School has implemented the following policies and practices which will ensure the sustainability and of this project.

- i) The Calgary Science School already utilizes progressive technology and has the infrastructure necessary to implement a Personalized Learning Initiative.
- ii) The Calgary Science School website utilizes dynamic technology, allowing students and teachers to post information. In the future, this site will allow all members of the school community to dialogue and contribute to discussion boards.
- iii) A full time Educational Technologist is already employed.
- iv) Teachers have received three years of training in technology integration and have been given personal wireless laptops to utilize at home and in the classroom.
- v) The school utilizes looping at the gr. 6-7 level, allowing teachers to participate in this initiative for consecutive years.
- vi) A modified school calendar allows for ongoing staff PD to occur 1 week before students return to school in the fall and nearly every second Friday throughout the school year is a PD or school-wide planning day.
- vii) AISI funding supports this initiative allowing for ongoing release time and professional development of teachers to work with Galileo.
- viii) The Calgary Science School's Technology plan is developed at the school level allowing for the following:
 - Increased tech support hours to maintain computer hardware.
 - Modification of the yearly tech budget to support emerging and innovative learning initiatives.
 - Support for continuation of Personalized Learning Project in subsequent years after the completion of this pilot (pending review of School-wide evaluation and research).

11) Deliverables and Timelines

May / June 2006

- i) Evaluate wireless infrastructure and expand if necessary to accommodate new laptops.

June / July 2006

- ii) Network existing NEC projectors.
- iii) Install SmartBoards in grade 6 classrooms.

- iv) Obtain student iBooks and all necessary hardware and software for this project.

August 2006

- v) Orientation and staff PD before new school year begins (mid-August start).
- vi) Parent information night on Personalized Learning Initiative.
- vii) Begin pilot project with grade 6 students and teachers.

August 2006 – June 2007

- viii) Continued maintenance of wireless hardware and software.
- ix) Proactive professional development, support and training for teachers, parents and students.
- x) Ongoing assessment and evaluation of Personalized Learning project.

12) Budget

We request \$150,000.00 from Alberta Learning to initiate this Personalized Learning pilot project. The Calgary Science School will contribute \$152,807 towards its implementation.

Quantity	Description	Price	Extended
100	iBook 14"1.42GHz/512MB/Superdrive	\$1,520	\$152,000
100	Alberta Advance Disposal Surcharge	\$5	\$500
100	Incase Briefcase for 14" iBook	\$99.95	\$9,995
100	Extra Power adapters	\$85	\$8,500
4	Laptop Charging Cart	\$1,499	\$5,596
4	Apple Remote Desktop 2.2	\$379	\$1,516
100	Mac OSX Maintenance 36 Months	\$109	\$10,900
100	iLife '05 Maintenance 36 Months	\$39	\$3,900
100	QuickTime Pro 7	\$32	\$3,200
100	Other school based software programs	\$200	\$20,000
4	SmartBoards and installation	\$2600	\$9,200
	School-based email server & software		\$6,000
	Maintenance and insurance of laptops		\$10,000
	Improvements to existing wireless network		\$10,000
	Networking of Classroom Projectors		\$5000
	Galileo - staff PD and program evaluation		\$25,000
	Educational Technologist (1/6 salary)		\$11,500
	Tech support to sustain projects		\$10,000
		TOTAL	\$302,807

Calgary Science School

Video-conferencing Implementation Plan

1. Charter Board Information:

- a. Calgary Science Charter School Society
- b. Scott Petronech
Educational Technologist
5915 Lewis Drive SW
Calgary AB, T3E 5Z4
Phone: (403) 282-2890
Email: scott.petronech@calgaryscienceschool.com
- c. Appendix A – Letter of Support from Superintendent

2. Implementation Plan:

- a. CSS Video-conferencing Project
- b. In the hopes of integrating innovative technology into our school program, Calgary Science School is prepared to dedicate the appropriate space necessary to develop a video-conferencing area. This room will be utilized to support the following teaching and learning opportunities:
 - i. Outreach: One of our school's mandates is to provide professional development opportunities to other schools and teachers throughout the Province. Last year, CSS staff presented over 20 workshops, reaching approx. 700 teachers, parents and students. CSS has identified that one of the primary shortcomings of this kind of outreach is the difficulty in offering follow-up workshops and sessions. A video-conferencing lab will allow our staff to offer more outreach and networking opportunities as we connect and stay in touch with other school communities.
 - ii. Telecollaboration: Inquiry-based learning is the primary focus of our learning community. Students and teachers identify and apply real-world issues to the Alberta Program of Studies. This often results in learning opportunities that cannot be taught from a textbook. Our school utilizes experts from as many different sources as possible (Gaileo, University of Calgary, Mount Royal College, Alberta Distance Learning...), but it is difficult to bring an expert into our school environment on short notice. A video-conferencing lab would allow us to connect both students and staff to experts from around the globe.
 - iii. Development of New Teachers: Our school has developed a partnership with the University of Calgary's Masters of Teaching Program. A full cohort of student teachers are assigned to our school. At this time, we utilize web-streaming so student teachers can observe and learn from their peers. This technology has been effective, but all broadcasts can only be viewed from within our school. We are unable to send video outside of our building.

- iv. Alberta Distance Learning: Our school is continually looking to improve existing school programs. At this time, we are looking for a more effective way to implement a second-language program. Because of this, we are field testing a grade 4 web-based program with ADLC. Our involvement in this program allows us to utilize web-based resources and link us to French Instructors located in Barrhead. We are also looking into offering our own Distance Learning programs for members of the ADLC. We have a Spanish specialist who could offer her services to this collective. Video-conferencing would strengthen our ability to effectively communicate with these experts.
 - v. Link to Serbia: Our two school Superintendents are involved in a Canadian initiative to improve the education system in Serbia. Video-conferencing would allow our superintendents to communicate with their colleagues overseas and would allow our school to take part in more global dialogues as they forge connections and opportunities for our school.
 - vi. Student Learning: - Many of the opportunities mentioned have been teacher focused, but our main interest in developing a video-conferencing lab is for the direct impact this facility will have on our students. We want to give students the opportunity to utilize these tools on a daily basis to dialogue and collaborate with peers, mentors and specialists from around the globe. This will allow us to develop the academic, interpersonal and transferable skills of our students. We also see this as a way to foster self-confidence, self-esteem, and global consciousness in youth.
- c. Video-conferencing technology will allow us to strengthen our ability to collaborate with global neighbors and access a broader wealth of knowledge. This tool will also encourage our school community to make the transition from passive consumers to active producers. We believe that the collaboration opportunities that a video-conferencing lab will generate will allow CSS staff and students to be authors as well as consumers.
 - d. This project would impact all members of our school community. As a grade 4-9 middle school, we see opportunities for all grades and staff members to utilize this technology. All 600 students and approximately 40 teachers, administrators and support staff will be able to access this area.
 - e. Technology integration is an important component of our existing programs. As a school that focuses on Inquiry-based learning, our students spend a large portion of their day examining and developing proposals and solutions to real-world issues. This problem-based approach encourages hands-on learning and empowers our school community to network, ask questions and present information to different community groups. All teachers are provided with a networked laptop and students have access to 105 laptops, 3 computer labs (with 26 machines in each lab), and 2 computers in each classroom. Our students and teachers also utilize 35 digital cameras and 15 digital camcorders in order to create multimedia projects within a classroom setting. These peripherals have given our school a preliminary introduction into the world of web-streaming and

the potential of video-conferencing. In the fall of 2005, we installed a networkable digital projector and speakers in every classroom of our school. We have also installed Supernet into our school. These projectors in conjunction with designated VPNs will be connected to our video conferencing centre, allowing entire classes to participate and engage in ongoing video-conferencing opportunities.

- f. It will be important for our school community to understand that video-conferencing (and all other technology) must be used as a tool to enhance what is already occurring in the classroom. Teachers make the pedagogical shift from operation to application when using technology. Video-conferencing will provide us with another opportunity to develop an ideal classroom where students learn at their own pace yet collaborate to create something more dynamic than any one of them could imagine. In this classroom, students are passionate about learning, and teachers have the technological means to nurture that passion.

3. Technical Support:

- a. Our school has hired a Calgary-based technology support company to assist us with our technical needs. Office Solutions Incorporated has been contracted to maintain and optimize all software and hardware within our school environment. Apex Audio Visual has assisted us with the networking and installation of projectors and speakers in all classrooms. We have also fostered a relationship with Apple Canada. Technical engineers from their company work with us to enhance our computer environment and make recommendations when we require hardware and software updates and acquisitions. All three of these groups will be brought in to act as consultants as we look to develop a video-conferencing centre.

4. Professional Development:

Our school is on a modified calendar. That has allowed us to create a learning environment for teachers with ongoing professional development opportunities. At the start of the school year, staff come back to school a week before students arrive. One of the focuses of this week is technology integration and instruction. Every second Friday is a non-student day. These days are divided into Professional Development and Teacher Planning days. This allows for formally scheduled ongoing PD for staff. In order to assist and enhance the computer based skills of both students and staff, a full time educational technologist is on staff. This individual is given dedicated time to assist the school community with technology integration. This individual will assist the school in spearheading this video-conferencing initiative.

5. Evaluation:

This project will be evaluated through both qualitative and quantitative measures.

- i. Parents, students and teachers take part in an anonymous evaluation every year. This evaluation has a technology component.

- ii. As part of our school's education plan, the effectiveness of technology-based programs and initiatives are evaluated by school staff, administration, superintendents and the board.
- iii. Every 5 years an external review evaluates the programs and effectiveness of CSS teaching practices.
- iv. We will also look to obtain feedback from all appropriate partners and collaborators associated with this project.

The following are the Calgary Science School's Technology Based Goals that are already reviewed and evaluated on a yearly basis:

- i. Students and teachers have access to technologies that best support the learning outcomes as defined in Alberta Education's Technology Integration Curriculum.
- ii. Professional development programs result in technologically-based, pedagogical practices that maximize learning opportunities.
- iii. Technology integration practices meet and exceed the expectations and implementation timelines prescribed by the Alberta Education Information and Communication Technology Curriculum.
- iv. Students, teachers, and key partners will be able to measure their success in achieving the technology integration goals and objectives.
- v. Teachers are able to extend innovative practices in problem-based learning using enhanced technology.



3

Communications Plan

Mandate

To build a stronger community profile for CSS. This will be accomplished by focusing on improved internal and external communication with stakeholders, and through outreach activities.

Action Item:

1. To employ a half-time communication coordinator to facilitate communication amongst all stakeholders.

Internal Communication (students, parents, staff)

Definition: Material and activities that provide information about events and activities taking place at the school to students, parents and staff.

Goal: To keep students, parents and staff informed and engaged in matters regarding student learning.

Action Items:

1. Surveys: Develop and administer year end student survey and explore the feasibility of a Grade 12 Survey.
2. Spectrum Newsletter: Add a section which acknowledges student community achievement. Maintain and improve newsletter.
3. Website: Continue to improve usability and keep current and effective.

External Communication

Definition: Material and activities that provide information about the school. It enhances the understanding and the image of the CSS in the community, to its stakeholders and potential stakeholders. The key external stakeholders are:

- Parents of potential students currently in Division 1
- Media
- Businesses that might become supporters of the school
- Community at large

Goal: To build a stronger profile within the external community.

Action Items:

1. School Pamphlet: produce brochure specific to CSS to inform potential parents what CSS is all about. Add a tag line such as "it's not just about science" or "science and so much more..."
2. Advertising: Continue to advertise in select education magazines such as Calgary Living magazine or Choice magazine, as required throughout the year.
3. Open Houses: Continue to annually host two information nights for parents with children on waiting lists.

Outreach**Definition:**

Outreach is teaching, research, and service that engages CSS with the larger educational community. Outreach activities generate knowledge, share resources and apply the expertise of our school in ways that advance public education and the goals of CSS.

Goal: To engage in a variety of outreach activities which deepen our understanding and share the work of CSS.

Details: Support, record and monitor the wide variety of outreach activities our school participates in over the school year. Review quarterly reports of outreach activities.

Action Items:

1. Secondment/Exchange: Secondments proceeding. Exploring potential of Teacher Exchange.
2. Host one CSS conference per year (eg. Gender Smarts).
3. Establish connections with experts in the community.
4. Continue to track, develop and maintain our outreach connections.

In many ways, we are beginning to weave our outreach and professional growth plans together. As we strive to articulate our practices, we work toward common goals that direct our attention to common areas of interest.

Outreach Activity Plan

Pre-Service Education

Galileo / U of C

- Work with Galileo and the University of Calgary to provide support for pre-service cohorts to develop skill in inquiry-based learning:
 - Host cohorts of student teachers.
 - Support teaming of Galileo mentors with student and partner teachers.
 - Work with field advisors to build continuity between the university and the school.
- Seek opportunities for staff to present for university classes (e.g. Les Pearson's science methods class).

Mount Royal College

- Host Mount Royal College pre-service students.
- Host full-class visits.

Hosting Conferences

Annual CSS Conference (e.g. Gender Smarts)

- Involve staff in identifying themes that allow us to refine and showcase our expertise.
- Encourage staff to co-develop presentations to encourage staff interaction and to refine/showcase areas of expertise.

Charter School Conference (alternate years)

- Include at least one CSS staff member on the program planning committee.
- Encourage staff to co-develop presentations to encourage staff interaction and to refine/showcase areas of expertise.

General Workshops

- Compile a list of workshops that CSS staff have done in the past. Post these on the website so that interested parties may request our services.
- Develop a feedback form so that we can keep improving our ability to communicate our ideas.

School Tours/Visitors/Partnerships

- Develop an official tour that highlights key areas of our program: e.g. (a) inquiry-based learning, (b) technology, (c) diverse programming (electives, comp, etc.), (d) democratic policies and (e) outdoor education.
- Develop a relationship with CBE's science school.

Post-Secondary Involvement

- Encourage professional writing.
- Support teachers who wish to further their education at the Masters or Doctorate level (professional improvement assistance).

Provincial Organizations

Alberta Speech and Debate Association

ATA Specialist Councils

- Encourage involvement in ATA specialist councils.
- Present at relevant specialist council conferences.

Alberta Education

- Seek opportunities for staff to be involved in curriculum evaluation and development.

Expert Connections

- Seek experts in various curricular areas who we can partner with teachers at appropriate grade levels and with whom we can develop long-term relationships. They would help with planning and implementing various units of study in a way that more closely mirrors the “real world” and helps us find ways to involve students in “real work” rather than just “school work.”

Community Service

Calgary Catholic Immigrant Society

- Partner CSS classes with adult classes to tell the immigrants’ stories

Habitat For Humanity

- We could aim to do one (optional) community service day each year.

Grade 9 Leadership Initiatives

The key here is that sidewalks are important not because they provide an environmentally sound alternative to freeways (though that is also the case) nor because there’s something quaintly old-fashioned about pedestrian-centered towns (that is more a matter of fashion than empirical evidence). In fact, there’s nothing about the physical existence of sidewalks that matters to Jacobs. What matters is that they are the primary conduit for the flow of information between city residents. Neighbors learn from each other - and each other’s stores and dwellings - on the sidewalk.

Emergence: The Connected Lives of Ants, Cities, and Software by Steven Johnson

Appendix 4 - Calgary Science School - Charter Based Accountability Framework - Draft (March 7, 2006)

Outcomes	Measures	Data collection methods	2002-03	2003-04	2004-05	2005-06	2005-06	2005-06	Comments
						Target	Actual	Improvement	
Goal 1: To foster high self-esteem through stimulating challenge and meaningful academic achievement.									
Outcome 1: Students have high self-esteem	Measure 1: % students who indicate that they are pleased with their success in school	Annual student survey							
Outcome 2: Students improve their learning and their critical and creative thinking skills through regular involvement in relevant problem-based learning (PBL) experiences.	Measure 1: Average score of all students in Grade 6 and in Grade 9 in the "Inquiry" component of the Progress Report	Progress report							
	Measure 2: Improvement in average score the "Inquiry" component of the Progress Report for Grade 9 students as compared to the marks of the same students when they were in Grade 6	Progress report							
	Measure 3: Average score of all students in the "Enhancing and Supporting Community" component of the Progress Report	Progress report							
Outcome 3: Students demonstrate high standards of prescribed curriculum outcomes	Measure 1: % students who achieve the excellence level on PATs	PAT data							
Goal 2: To develop in students a lifelong love of learning, a desire for self-development and the skills to provide ethical leadership									
Outcome 1: Students have a love of learning	Measure 1: % students who indicate that they enjoy their school work	Annual student survey							
Outcome 2: Students have a desire for self-development	Measure 1: % students who indicate that they enjoy trying out new challenges	Annual student survey							
Outcome 3: Students have leadership skills	Measure 1: % students who indicate that they have taken opportunities to exercise leadership in the school or in a school-sponsored activity	Annual student survey							
	Measure 2: Average score of all Grade 9 students in the "Leadership" component of the Progress Report	Will be added to the Progress Report, for Grade 9 only							
Goal 3: To create a community of peers who value scholarship, academic achievement, curiosity, discovery and creativity.									
Outcome 1: Students value scholarship and academic achievement	Measure 1: % students who indicate that it is important to do well in school	Annual student survey							
Outcome 2: Students value curiosity, discovery and creativity	Measure 1: % students who indicate that they enjoy looking for answers and solving problems	Annual student survey							
Outcome 3: Students are well served even if they have varied abilities, aptitudes and learning styles	Measure 1: % of students that feel they are safe at school, are learning the importance of caring for others, are learning respect for others and are treated fairly at school	Accountability Pillar survey							
	Measure 2: Average number of multicultural events, that celebrate diverse cultural and religious background, attended per student	School records							

Outcomes	Measures	Data collection methods	2002-03	2003-04	2004-05	2005-06 Target	2005-06 Actual	2005-06 Improvement	Comments
	Measure 3: % of students who feel that their cultural values and background are respected at the school	Annual student survey							
Outcome 4: Students feel that the school treats students as partners in the democratic process	Measure 1: % of students who think that their voice is heard and respected by the adults in the school	Annual student survey							
	<i>Earlier measure: % of students who have had opportunities to be involved "all the time" in decisions that affect student life at CSS</i>	2003 student survey	18%	20%					
Goal 4: To serve as an excellent preparation for students intending to pursue post-secondary education									
Outcome 1: Students complete high school and enrol in post-secondary education within a minimum number of years after completing Grade 9	Measure 1: % of CSS Grade 9 graduates who complete high school within 3 years of completing Grade 9	Alberta Education data							
	Measure 2: % of CSS Grade 9 graduates who enrol in post-secondary within 4 years of starting grade 10	Alberta Education data							
Goal 5: To develop a variety of employability skills that are essential for future employment in a high technology society									
Outcome 1: Students demonstrate strong organizational skills	Measure 1: Average score of all students in the "Work Habits" component of the Progress Report	Progress report							
Outcome 2: Students demonstrate a variety of employability skills that are essential for future employment in a high technology society	Measure 1: Average score of all students in the "Knowledge and Skills" component of the Progress Report	Progress report							
	Measure 2: Average score of all students in the "Communication" component of the Progress Report	Progress report							
	Measure 3: A measure of the impact of the one-to-one computing project	To be suggested by evaluators							
Goal 6: To provide an environment that encourages students to be active learners.									
Outcome 1: Students are able to experience the richness and excitement of knowing about and understanding the natural world	Measure 1: Average number of days per student per year spent on field trips	School records							
	Measure 2: % of students who very much enjoyed their field trips	Annual student survey							
	Measure 3: % of students who think that an understanding of the natural world is important	Annual student survey							
Outcome 2: Students are excited, engaged and empowered	Measure 1: % of students who feel that they can take on any challenge	Annual student survey							
	<i>Earlier measure: % of students who feel that they can do just about anything they set their minds to "all the time"</i>	2003 student survey	37%	34%					
	Measure 2: % of students who are excited to come to school	Annual student survey							

Outcomes	Measures	Data collection methods	2002-03	2003-04	2004-05	2005-06 Target	2005-06 Actual	2005-06 Improvement	Comments
	<i>Earlier measure: % of students who enjoy being at school "all the time"</i>	2003 student survey	28%	29%					
	Measure 3: Cutting edge use of technology - assessment of what percentile the school falls into in terms of adoption of specified technologies	With the assistance of Alberta Education's registry of technology initiatives and endowments							
	Measure 4: % students who indicate that one-to-one computing makes them feel more engaged	Annual student survey							
Outcome 3: Students take part in voluntary enrichment activities	Measure 1: Average number of voluntary enrichment activities (extracurricular, intermural) participated in, per student	Annual student survey							
	<i>Earlier measure: % of students who have had opportunities to be involved "all the time" in activities outside the classroom</i>	2003 student survey	41%	39%					
Goal 7: To provide students with the ability and desire to put their learning to use as members of society.									
Outcome 1: Students are of service to others	Measure 1: Average number of activities participated in, within the set of specified school-sponsored outside of school community service activities	Annual student survey							
	Measure 2: Average number of activities participated in, within the set of specified school-sponsored in-school community service activities	Annual student survey							
Outcome 2: Students are able to use appropriate inquiry processes in making personal decisions	Measure 1: % students who can see how they could use the inquiry process in making personal choices	Annual student survey							
	<i>Earlier measure: % of students who indicate that Quest helped them to understand the relationship between their learning and real world problems "all the time"</i>	2003 student survey	17%	27%					
Outcome 3: Students are able to engage intelligently in public discourse and debate	Measure 1: % students who indicate confidence in their ability to participate and to do well in debates	Annual student survey							
	Measure 2: Average number of external debates participated in, per student	School records							