Technology Integration Plan

Adventist Education

A JOURNEY TO EXCELLENCE

CAT~net http://catnet.sdacc.org

2006-2009

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Executive Summary

This page is intended to provide a concise summary of the future direction for educational technology (technology) in Seventh-day Adventist schools across Canada as proposed in this *Technology Integration Plan* (TIP).

Technology Vision

A technology plan represents an organization's best thinking about technology infusion and directions for the future. Elements of a successful technology plan will find their way into an organization's budget, curriculum and job descriptions.

The vision of this plan is to fully integrate technology in all Seventh-day Adventist schools across Canada. This integration will:

- Empower and enhance students, teachers, parents, and others with clear targets for technology use.
- Allow students and teachers to gather, process, and communicate information at appropriate levels.
- Define desired goals for learners.

Goals of the *Technology Integration Plan*

Goal 1 - Technology Across the Curriculum

Students and teachers at all K-12 levels will use technology to enhance learning across all curriculum areas.

Goal 2 - Professional Development

All teachers will have access to technology training and support programs. It is anticipated that all teachers in Seventh-day Adventist schools across Canada will acquire the necessary skills in technology to enhance the learning experiences of their students.

Goal 3 - Technical Support

All schools and teachers will be provided technical assistance as they implement current software and hardware.

The identification of local conference technology leaders will provide necessary assistance in the implementation of technology at the local school level.

Goal 4 – Funding Communities

Financial support for technology integration in Seventh-day Adventist schools across Canada must be encouraged at all levels - the Seventh-day Adventist Church in Canada **(**SDACC**)** Office of Education, local conferences, and local school boards/operating committees.

Goal 5 - Implementation and Evaluation

A variety of infrastructures will be established to ensure that this *Technology Integration Plan* is meeting the needs of schools and constituencies.

Goal 6 - On-going Revision

This *Technology Integration Plan* will be critically evaluated and updated on a yearly basis to reflect current realities in technology.

Introduction

1.1 Vision

The implementation of a comprehensive *Technology Integration Plan* for Seventh-day Adventist schools across Canada will:

- Empower students, teachers, parents, and other constituent members, with technology and information literacy skills.
- Allow these skills to be used to gather, process, and communicate information at a level relevant to their current and anticipated needs.

1.2 Mission Statement

The *Technology Integration Plan* for Seventh-day Adventist schools across Canada will:

- Provide direction and support.
- Enlighten, encourage, and enable learners to develop and use technology and information literacy skills.
- Empower learners to become responsible, contributing, and ethical members of an ever changing global society within a Christian framework.

1.3 Mandate of the Technology Planning Committee

This plan is the result of work done by a selected group of SDACC educators who worked via Internet and teleconferencing in February and March 2005.

The group's mandate was to revise the 2002-2005 *Technology Integration Plan* which would provide guidance and support for technology decision-making for SDACC conferences and schools for the next three years - 2006-2009.

The two-fold premise of this *Technology Integration Plan* is that student learning will be improved, and our SDACC educational system will be enhanced, through technology integration across the curriculum. This technology plan addresses:

- The integration of technology across all curriculum areas, K-12.
- Professional development for all teachers.
- Hardware and software selection guide-lines and support for the interpretation and implementation of the *Technology Integration Plan.*
- Funding support from a variety of stakeholders.
- Implementation of the recommendations of the *Technology Integration Plan* and the evaluation of its implementation over the next 3 years (2006-2009).
- The ongoing evaluation and revision of the *Technology Integration Plan*.

1.4 Committee Members

Colin Hill, Canadian University College (Chair)
Mike Lekic, SDACC, Coordinator
Michael Adams, Alberta Conference
Anel Alexis, Quebec Conference
Tim Buttler, Parkview Adventist Academy
Dan Carley, Ontario Conference
Steven Gabrys, British Columbia Conference
Greg Kapiniak, Alberta Conference
Lawrence McMullen, British Columbia Conference
Ian Mighty, Man-Sask Conference
Dave Russnell, Seventh-day Adventist Church in Canada
Margaret Russnell, Kingsway College
Jean Septembre, British Columbia Conference
Bruce Wentzell, Maritime Conference

1.5 A Technology Vision for SEVENTH-DAY ADVENTIST Schools

It is evident that knowledge is accelerating at an ever increasing rate. With this tremendous increase in information and powerful advances in technology, come very real, demanding, yet challenging sets of problems.

Alvin Toffler in his book *The Third Wave* poses the following questions:

- *Is it enough to simply be satisfied with teaching yesterday's 3 R's?*
- *Are we doing our students a disservice if we don't also make them computer and media literate? Should we be giving them the skills to gather, discern and use information gained from the various media sources?*
- *How literate is a child if they cannot discern truth in what they hear and/or see in this world of technology?*

Seventh-day Adventist schools across Canada must address the strong challenges found in these words. With this in mind the Technology Integration Committee would like to propose the plan enclosed in this document.

It is our objective, that this plan, be a dynamic and interactive document that will enlighten, encourage, and enrich. It is also our desire that this plan will provide the following elements:

- Identification of goals, skills, and resources relevant to the integration of technology across the curriculum in all subject areas.
- The development of a system of technology training and support for all teachers, in all Seventh-day Adventist schools, across Canada.
- The identification of hardware and software resources necessary to implement the components of this plan.
- Procedures for implementing this plan which include strong links of support and lines of communication (e.g. technology leaders, an Internet presence, etc.).

It is our hope that readers will recognize the possibilities inherent in this plan. It not only opens exciting new ideas and methods in the classroom, but also in the area of Christian service in our ever expanding world.

Goals of the Technology Plan

Goal 1 - Integration of Technology Across the K-12 Curriculum

- To identify specific technology and information skills needed at various skill levels for both students and teachers.
- To provide an infrastructure for training and an information network to support educators in the effective implementation of technology in their classrooms.
- To use technology to share Christian knowledge and values.

Goal 2 - Professional Development for Teachers

- Promote and facilitate the ongoing technology advancement of staff members in an effort to maintain quality education in Adventist schools.
- Engage staff members in active, practical uses of technology at beginner, comfortable, competent, and advanced levels with a view of technology competency.

Goal 3 - Software, Hardware, and Technical Support

- To identify and put into place the steps/processes involved in the purchase of hardware/software.
- To develop, implement and maintain a system of technology leaders responsible for providing assistance in system design, curriculum development strategies, and software training.
- To have a multimedia computer within the classroom for every teacher.

Goal 4 – Funding Communities

- Provide funding for:
  -establishment of a basic technology infrastructure.
  -ongoing professional development.
- Community and parent support:
  -Provide ongoing communication to relevant groups regarding the stages of the *Technology Integration Plan*.
  -Invite relevant groups to view and access technologies at the school.

Goal 5 - Implementation and Evaluation of the *Technology Integration Plan*

- Ensure the *Technology Integration Plan* is accessible, understood and implemented at local levels.
- Ensure that implementation of the *Technology Integration Plan* is meeting the needs of schools and their constituencies.
- Evaluate and share those aspects of the *Technology Integration Plan* that have been successful.

Goal 6 - The On-going evaluation and Revision of the *Technology Integration Plan*

- Critically evaluate and update the *Technology Integration Plan* to reflect changes in curriculum and technological developments.

Goal 1 - Integration of Technology Across the K-12 Curriculum

Background

In this Information Age, technology is an essential element in today's classroom. Students who do not know computer essentials – word processing, spreadsheets, databases, network usage, Internet usage, and operating systems – are distinctly disadvantaged.

For these reasons, technologies need to be integrated across the K-12 curriculum and used as tools to enhance teaching and learning. Technology skills must be incorporated into existing subject areas and not taught as a separate subject. The types of skills necessary in today's world include: use of telecommunication tools, publishing tools, multimedia presentation tools, research, and information gathering tools.

Action Plan

To provide for the integration of technology across the K-12 curriculum, an academic plan must be established which will incorporate the following elements:

1.1 Identify specific technological & information skills needed at varying user levels.

Important Resources note:
If you do not already have them, ask for the following Seventh-day Adventist North American Division publications:

- Guides for K-12 Business and Computer Education (1999);
- Computer/Technology Implementation Strategies K-8 – supplement (2001);
- Computer Literacy Competency Test (2001),
- Distance Education Policies, Standards, and Guidelines (2001), and
- Curriculum Guide: Business and Computer Education, K-12 (2002).

As an example of skills that may be required at different learning levels, check pages 20-24 of the following Manitoba Education and Training document. (http://www.edu.gov.mb.ca/ks4/docs/support/tfs/pdfed_tech.pdf.

1.2 Strategies to discover, develop, implement, and support the integration of technology:

1.2.1 To strongly encourage the integration of computer and technology skills into all subject areas. (s*ee Appendix B*)

1.2.2 To develop and maintain an Internet presence that will allow users to:

- Gain access to other technology plans and implementation strategies and other resources.
- Utilize listserv, or newsgroup sites for the networking of the Seventh-day Adventist educational system allowing for the interchange of ideas and support for curriculum integration. This will be accomplished by using the proposed CAT~net. (*see Appendix C)*
- Acquire an e-mail address for communication purposes.

1.2.3 To implement a line of communication to technology leaders for assistance in curriculum integration.

Goal 2 - Professional Development for Teachers

Background

Teachers play a key role in whatever happens when computers or other tools are used in education. If technology is to effectively impact teaching and learning within Seventh-day Adventist schools, teachers must be comfortable with computers, seeing them as tools that enhance their daily teaching.

Indeed, technology can help increase teaching time and productivity through the use of word processing, database, spreadsheet, presentation, administrative software (attendance, grading), report card and test generation software.

2.1 Successful Technology Integration

To implement student learning objectives, administrators, teachers, and staff members must be provided with effective training and support materials. Research studies have shown that technology is successfully integrated into all areas of student life when the following conditions occur:

2.1.1 Administrator/teacher/staff development is ongoing and systematic.

2.1.2 Administrators, teachers, and staff members are provided with technology training which encourages them to progress from functional computer users to those with advanced levels of proficiency.

2.1.3 Administrator/teacher/staff development sessions provide ample "hands-on" experience with technology and serve to introduce new technology tools as they become available.

2.1.4 Administrator/teacher/staff training workshops and in-services are aimed at, and developed directly from, curriculum objectives and requirements.

2.1.5 Administrator/teacher/staff members are made aware and kept abreast of the various support staff and resources available to them.

2.1.6 Administrator/teacher/staff training, in-services, and workshops are supplemented with lesson modeling, examples of classroom activities, and classroom management techniques.

2.1.7 Administrator/teacher/staff training, in-services, workshops, and lesson modeling are followed up with informal evaluation activities which monitor progress and build on initial training.

2.2 Educational Technology Strategic Plan

In order to establish a staff development program, conferences and local schools will have to assess formally or informally the following:

2.2.1 Professional development interests and needs.

2.2.2 Development of a descriptive summary of technology skills and usage.

2.2.3 Identification of a number of individuals willing to share skills and techniques with colleagues.

2.2.4 An inventory of how technology is being used, both at home and at work, by teachers and administrators along with their level of competency.

This assessment will indicate the need to establish a sequential, long-term professional development program to provide teachers with the necessary skills to implement an effective technology plan. In order to implement an effective technology plan teachers will need to maintain the necessary technological tools. Please note Goal 4.3 "Matching Fund" which states that conferences initiate a matching fund to assist teachers in sustaining this goal.

2.3 Professional Development Readiness

Professional development is dependent upon the levels of readiness among teachers involved in the program and involves at least three levels:

2.3.1 Whether teachers are capable of basic use of software applications, e.g., integrated software, desktop publishing, Internet, and authoring/presentation software.

2.3.2 Whether teachers are able to infuse technology effectively into the curriculum, emphasizing a multi-disciplinary approach.

2.3.3 Whether teachers are able to design and develop products or presentations that are interdisciplinary, interactive, and thematic using multimedia authoring tools.

Within these levels, teachers are encouraged to actively participate and apply themselves in using technology to enhance their own learning. They should take personal initiative to learn about educational technology tools and resources, and incorporate them as appropriate into their instruction.

2.4 Strategies for Implementation of Staff Development

A plan needs to be developed by either the school or the conference, that will design the path teachers are to follow to achieve the desired outcomes. The following are strategies that may be implemented in this plan:

2.4.1 Schools should provide adequate hardware and software in order to increase access to technology.

2.4.2 Schools should establish an Information Technology coordinator who will link administrators, students, teachers, and parents. The coordinator will also be responsible for preparing an annual report to the local school board and conference technology committee/office of education regarding the schools progress towards implementation of the *Technology Integration Plan.*

2.4.3 Conference and schools should provide on-going in-service that reflect staff and administrator needs in using technology to enhance learning.

2.4.4 Schools are encouraged to allocate time for professional development days, yearly for technology in-service.

2.4.5 Schools should annually allocate funds for the implementation of staff development.

2.4.6 Schools should provide access through the Internet in order to communicate with other Seventh-day Adventist educators for support.

2.4.7 The integration of cooperative learning is a dynamic form of professional growth for staff.

2.4.8 Conferences and schools should provide educational opportunities that are linked directly to solving real problems related to student learning.

2.4.9 Conferences and schools should provide examples of practical uses of technology in all aspects of curriculum.

2.4.10 Conferences and schools should ensure that the information technology coordinator is sufficiently

trained in order to properly in-service staff members.

2.5 Intended Results of This Technology Plan

The implementation of an ongoing technology in-service program for teachers is anticipated to be continued over the next three years.

2.5.1 Implementation

- In conjunction with the SDACC, schools are encouraged to create or revise their Technology Plan specific to their school needs, outlining how technology will be integrated into the school's curriculum.
- It is recommended that all schools obtain Internet access.
- Teachers wanting to prepare for the integration of technology could take the following courses through CUC: EDCI 310 *Technology in Education* and/or EDCI 410 *Internet in the Classroom.* Additional courses be offered at CUC to update teachers on current technology practice outside of EDCI 310 and EDCI 410. Online courses and training are also being offered through AVLN (Adventist Virtual Learning Network www.avln.org) and ADEC (Adventist Distance Education Consortium www.sdaedu.org).
- It is recommended that each school select an Information and Communication Technology (ITC) coordinator from the school to be trained to help teachers with on-site support, in-servicing, and dissemination of information. The ITC
- Coordinator in conjunction with the principal, would be responsible for ensuring and coordinating professional development activities related to technology.
- Teachers are expected to gain a level of proficiency in the use of the Internet, sending and receiving e-mail, and basic use of software applications. As well they should know how to operate CD ROM's/DVD's, through in-service training provided by the school. Time for this training (recommended 30 hours) can be provided through professional development days, extracurricular hours, teacher workshops, and summer school.
- Computer courses available through local educational institutions, distance education (Internet/homestudy/video), or CUC, will supplement technology skills. For the NAD Distance Education Policy/Guidelines K-12, see http://catnet.sdacc.org/resources).
- Teachers are able to prepare and incorporate multimedia presentations (e.g. Powerpoint, Hyperstudio) for students through in-service training provided by the school. As well they are able to use software programs to create graphics for educational illustrations and animation, and use scanners through in-service training provided by the school (recommended 15 hours).
- Teachers are encouraged to integrate technology effectively into the curriculum through the use of technology documents, hands-on, and/or on-site visitation. This can be acquired through the Internet or personal contact with other professionals in the area of technology.
- It will be expected that the staff be kept abreast of new technological advances in technology through whatever means possible.
- Teachers are encouraged to use available technology (electronic gradebooks, e-mail, fax modems, school web sites, etc.) to enhance teacher-parent communication with regards to student progress.

Not all staff members will attain these levels at the same time, however it is anticipated that all staff members will participate in acquiring proficient skills in technology to better enhance educational learning.

Technology can be used to support and provide meaningful professional development experiences for teachers in the following ways:

- Teacher ideas shared via the Internet.
- Ease clerical tasks for teachers.
- Sharing of organized information between teachers.
- Ease of research and inquiry on topics and materials.
- Provide different ways of instruction and evaluation.
- Provide a wide range of resources available that influence learning.
- Empower teachers and students with the use of higher level skills.
- Provide opportunities for teachers to be learners.

2.6 Conference Technology Leaders

It is the desire of the SDACC Office of Education that each conference's Office of Education will develop, implement, and maintain a group of technology leaders.

These conference technology leaders (CTL's), based on the level of support from their local school and conference, and as time and commitment allow, will fulfill the following job description:

- Act as a role model for teachers, demonstrating the use of technology across the curriculum.
- Encourage technology integration.
- Be involved in professional development training.
- Advise conference and schools concerning technology advancements.
- Interact through e-mail with schools.
- Aid in the implementation of technology plans.
- Direct schools to resources that will be able to answer their questions.

2.6.1 Teacher Productivity Training

In teacher productivity training, CTLs will:

- Learn skills and techniques necessary for teaching basic applications (word processing, drawing, painting, spreadsheets, etc).
- Demonstrate the use of spreadsheets by creating teacher documents such as class check-off lists and substitute teacher daily lesson schedule and plans.
- Demonstrate use of spreadsheet principles in using gradebook programs to facilitate teacher record keeping and communication.

2.6.2 Multimedia

In multimedia training, CTL's will:

- Explore the planning and design of classroom multimedia projects.
- Learn skills and techniques for basic multimedia applications such as Powerpoint, Hyperstudio, etc.
- Demonstrate the use of multimedia applications for instructional use.
- Examine a variety of evaluation and assessment tools.

2.6.3 Telecommunications

In telecommunications training, CTL's will:

- Become active, competent on-line users of telecommunication services.
- Use the Internet as an instructional tool.
- Research and capture web pages.
- Create a web page.
- Address issues related to acceptable use policies, child safety, security, copyright, etc.

2.6.4 Learning Resource Management

In the learning resources management training, CTL's will:

- Address a learning resource management plan as part of a local technology plan.
- Use resource-based learning as an essential part of technology-related curriculum planning and implementation.
- Use information literacy to access, evaluate, and use information from a variety of sources.
- Have a tool for software evaluation and selection.
- Address acceptable use policies, copyright, ethics, child safety, and other related issues.

Goal 3 - SOFTWARE, HARDWARE, & TECHNICAL SUPPORT

Background

The ongoing implementation of technology in Seventh-day Adventist schools across Canada means that teachers and schools must have access to technical support. The following guidelines provide a basis for evaluating each schools' technical needs.

Action Plan

Due to the constantly changing technology available, knowledgeable, (preferably holding industry certification) and dedicated individuals should be involved in or consulted at each step in the process.

3.1 System Setup

When setting up computer systems three main areas need to be considered:

3.1.1 Schools need to first assess their technology needs by referring to denominational and provincial guidelines.

3.1.2 Schools need to choose software that meets identified needs.

3.1.3 Schools need to acquire hardware that will run the desired software (*see Appendix E and Appendix F*).

3.2 Hardware, and Technical Support

After needs have been identified the issue of software and hardware purchase arises. Schools will not want to buy low quality software or hardware and then have problems. Care needs to be taken that quality products are purchased which provide satisfactory technical support. (i.e. warranty, proper licensing of all software, service contracts, service level agreements, high upgrade potential, phone support, on-line support.).

By using quality products, schools will have a more reliable and longer lasting system providing a greater return on investment.

To effectively complete these primary objectives a school, whether one or ten teachers, needs to obtain a multimedia computer system and provide Internet access.

3.3 Networks

If your school has multiple computers, you will want to consider the advantages of networking you school computers.

A network environment enables components to communicate with each other. This reduces the high cost of purchasing expensive peripherals, adds security to stored programs and data, and eliminates the high cost of duplicating resources. You could network your school administration, teachers in their classrooms, and your computer lab(s). Please note that a network involves a higher level of technical knowledge and financial commitment from the local school.
(For network advantages see Appendix F.)

Internet connected networks can also allow for the use of Course Management Systems (such as Desire 2 Learn, Moodle or WebCT) to be used for enhancing the face to face classroom by providing collaboration opportunities and additional activities/resources.

3.4 Software Selection

The process of software selection will be greatly simplified if the following guidelines are followed:

- Analyze needs.
- Specify requirements.
- Identify promising software.
- Read relevant reviews.
- Preview software.
- Make recommendations.
- Get post-use feedback..

(*See CAT~net for software reviews.)*

3.5 Identify, develop, and maintain an infrastructure/framework for implementing the *Technology Integration Plan (TIP)*

- Choose technology leaders who will be responsible for assisting in the interpretation and implementation of the *TIP*.
- At the conference level establish a program of workshops and accredited courses offered at teacher conventions, summer school, and regional workshops.
- Identify resources to aid in the development of computer usage policies
- Identify resources to aid in the development of policy for acceptable Internet usage in the school. *(see Appendix H)*

3.6 Computer Usage Policies

Most people who use on-line services have positive experiences. But, like any endeavor - traveling, cooking, or attending school - there are some risks. The on-line world, like the rest of society, is made up of a wide array of people. Most are decent and respectful, but some may be rude, obnoxious, insulting or even mean and exploitative.

As with all matters of law and ethics, ignorance of the rules does not excuse violations. The following is a recommended computer usage policy. (*see Appendix H for a complete Acceptable Use Policy.)*

It is contrary to most computer policies to:

- Use another person's account (even if you have permission).
- Attempt to discover another user's password.
- Copy, disclose, or transfer any of the computer software provided by the school without written permission from the school.
- Copy any of the copyrighted software provided by the school without permission. (*NOTE: It is illegal to copy any software which has a copyright*.) The use of illegally copied software is considered a criminal offense.
- Use any school computer equipment or software to violate the terms of any software license agreement.
- Attempt to bypass standard procedures. This includes, but is not limited to, unauthorized use of a password, accessing a file without permission, and reading an execute only file. Lack of file protection does not give the user the right to do any of these things.
- Copy, rename, change, examine, or delete files belonging to someone else without the owner's permission.
- Deliberately use the computer to annoy others, by sending obscene, abusive, or threatening messages.
- Use a school computer for non-educational work. For example, using school computers for profit making activities such as running a word processing service is NOT permitted.
- Tamper with terminals, microcomputers, or any other associated equipment.
- Collect or discard output other than your own without the owner's permission.

- Consume food or drink around terminals, microcomputers, or any other computer equipment.

3.7 Internet Safety Software

Great concern has been expressed over material available over the Internet. However, there is software available to control what can be accessed on the Internet.
Technology can be used to supplement supervision while students use the Internet. Software solutions can be installed that monitor and block/allow access to internet resources. For networked systems, content filtering devices can be installed that will monitor and block/allow access and provide for much greater flexibility and management/reporting potential.

(*See Appendix G for resources dealing with child safety on the Internet*.)

3.8 Virus/Firewall Software and Best Practices

The amount of Viruses, Trojans, and Spyware/Adware are on the increase. They can destroy data, disrupt business operations, allow access to local computers and networks, download private information, jeopardize other organizations, etc. A completely impervious environment is impossible to achieve, but setting and adhering to certain guidelines and best practices should be maintained.

- Install standard Anti-Virus, Anti-Spyware software on all computers and devices that are at risk.
- Ensure that your Operating system and Web Browser have the current security updates. Keeping all other installed software updated will reduce the likelihood of a security breach.
- Configure software to load at boot-up and scan all files when sending/receiving email, downloads/uploads, surfing the internet, FTP sites, audio-video media, etc.
- Software must be kept up to date to protect against emerging threats and must not be disabled for any reason under normal operating conditions.

Along with Anti-Virus and Anti-Spyware/Adware, there should be some form of firewall between your computer systems and the internet, especially if there is a persistent link to the internet such as ADSL or cable connections. Firewall choices would be either software or hardware based. For stand alone systems an internet security bundle will include both Anti-Virus and Firewall software and will work well. For larger networks a more robust managed hardware/software solution is called for.

For more information:

- http://www.norman.com/Virus
- http://www.microsoft.com/security
- http://itpapers.zdnet.com
- http://www.cnet.com

Goal 4 - Funding Communities

Background

The Technology Team, made up of representatives of all stakeholder groups, must commit to make available the necessary resources to local school boards to facilitate the equitable implementation of the goals and objectives set out in this document.

4.1 Action Plan

In considering the implementation of a technology plan there are several salient issues that must be considered.

- The technology needs in a school must be surveyed first. The acquisition of new technologies should be made following a careful analysis of the technology plan and the existing available resources.
- The real cost of implementing a technology plan includes initial costs and on-going costs. Successfully implemented technology plans allow for both initial capital expenditures and funding for on-going support and upgrading of software and hardware, as well as additional funding for staff training as required. Appropriate depreciation of technology items should allow for regular replacement of dated/obsolete and inoperative equipment.
- To ensure the success of this technology plan funding should be made available from all governance levels: the Seventh-day Adventist Church in Canada, the local conference, and the local school board.

4.2 Budget Development

In the development of budget guidelines the following points are recommended:

- Requiring a minimum dollar amount per student for technology education;
- A budgetary formula to conferences and local boards in the area of technology education;

EXAMPLE:

Operating Expense

Technology Education	
Hardware	5%
Software	1%
Training/Support	3%
Maintenance/Upgrading	1%
TOTAL	10%

Capital Expense

Technology Education	
Annually	5%

- Required depreciation of technologies allows for the replacement of equipment at a regular interval (3 to 5 years);
- Seek to achieve equity in the disbursement of identified funds; and
- Target a 2:1 student:computer ratio is present in all schools within the Seventh-day Adventist Church in Canada.

4.3 Funding of Initiatives

The SDACC has a $60,000 yearly budget allocated for Capital Improvement/ Technology in the schools that is shared by three entities/conferences on a rotational basis.

The following serve as starting points in considering various funding options and sources for the implementation of this plan.

Matching Fund -- To encourage the acquisition of educational technologies the SDACC recommends that conferences initiate a matching fund to assist teachers in purchasing computers using, at a minimum

the formula 1/3 conference + 1/3 local board + 1/3 teacher to a fixed maximum.

Grants -- Establish a centralized listing of available grants from corporate, government and private sources that would provide assistance to local boards through CAT~net. (i.e. grants available from corporations such as http://www.smarterkids.org/and Provincial Ministries of Education)

Special Project(s) -- The SDACC will undertake specific project(s) on an on-going basis to assist conferences and local boards in implementing local technology plans.

Local Fundraising -- As local boards develop and implement technology plans they should be encouraged to seek additional local sources of funding to assist in realizing stated objectives.

4.4 Recommendations

CAT~net -- The maintenance of the *Canadian Adventist Teachers Network* by the SDACC, will facilitate the implementation of technology plans by conferences and local school boards. The potential benefits include:

- Assistance in the development and implementation of technology plans;
- Availability of limited technical support;
- Recommendations regarding the purchase of various hardware and software, including the purchase of site-licenses; and
- The maintenance of the CAT~net site.

4.5 Community/Constituency and Parent Support

Involvement of constituent members and parents is essential for the success of any technology plan. Components of this involvement include the following:

4.5.1 The technology committee composition needs to reflect a cross-section of the community and include a treasurer/finance expert. (Teachers, administrators, parents, business people, church members)

4.5.2 The technology committee needs to communicate to parents and constituency the plans that they have concerning technology in the school.

- The committee's philosophy and objectives of technology implementation.
- The projected costs (both initial and on going).
- The benefits of the program (both to students and community/constituency).
- The status of the program as it proceeds through the implementation process.

4.5.3 The technology committee needs to involve teachers and constituency in the planning and decision-making process. This can take the form of information nights during which individuals would have opportunity to express their views in relation to the technology plans.

4.5.4 The technology committee needs to make provision for parent and constituency access to the technology being utilized in the school.

4.6 Marketing/Public Relations

To make any technology plan more meaningful to the general constituency, communication needs to take place. This may take the form of newsletters, outlining the overall philosophy of technology use in our schools, the make-up of the technology plan, and examples of how technology is being used in the schools to benefit students.

Goal 5 - Implementation and Evaluation of the *Technology Integration Plan*

Background

It is the desire of the SDACC Office of Education that a technology base, consistent with denominational and provincial education standards, be maintained and integrated into regular classroom activities. The implementation timeline for this *Technology Integration Plan* is illustrated below.

Action Plan

5.1 Proposed Implementation at the SDACC Office of Education Level

March

-Revised draft of technology plan completed and distributed to committee.
-Final draft and revisions completed.
-Publish revised technology plan in PDF including hyperlinks to:

- Technology plan examples
- Related provincial sites
- Technology leader support

-K-12 Board presentation -Emphasis on:

- Major revisions
- New directions

-Publish plan on website(s) (eg. CAT~net)

5.2 Proposed Implementation at the local conference level

April

-Make education superintendents aware of revised technology plan
-Prepare or revise instruments for:

- School technology plan.
- Hardware/software purchasing/ upgrading procedures.
- Implementation and evaluation.

May

Send memo to all schools stating:

- Reminder to review/revise technology plans.
- Encouragement for meaningful budgeting for hardware and software purchases/upgrades.
- Encouragement for staff training as provided by technology leaders and local community specialists.
- Encouragement for legal and ethical software use and installations by ensuring correct licensing procedures.
- Availability of technology leaders
- Publication of current proficiency expectations.
- Teachers' conventions will have, as needed, meaningful workshops and/or presentations on technology integration into the curriculum and/or training with specific applications.

-Telephone contact to principals and head teachers by provincial technology leaders to obtain informal information with regard to implementation of plan, particularly:

- School technology strengths.
- Challenges.
- Plans for the next school year.
- Perceived strengths and short-comings with the technology plan as experienced at the local level.

5.3 Evaluation of the Implementation of the *Technology Integration Plan*

Each conference will strike an evaluation committee consisting of the educational superintendent and conference technology leaders to evaluate the progress made towards the implementation of the SDACC *Technology Integration Plan* at the local level.

Appendix I contains a worksheet to be used in the evaluation of the implementation of the *Technology Integration Plan.* It is important to tailor the recommendations of the SDACC *Technology Integration Plan* to local school needs.

Goal 6 - On-going Evaluation and Revision of the *Technology Integration Plan*

Background

It is an absolute necessity that accountability measures be put in place to monitor the progress of each goal, strategy, and action of the *Technology Integration Plan*.

The *Technology Integration Plan* will be reviewed and revised on an annual basis. Progress reports will be given yearly at the SDACC K-12 Board of Education. These reports will reflect a critical evaluation of the plan and contain proposed updates which will reflect the most current changes in curriculum and technology development.

Action Plan

6.1 On-going Evaluation

Continue to monitor and revise the CAT~net website to be used in actual implementation of the plan and as the first area of contact.

Spring 2008

-Present revisions and ascertain degree of support for the program at the SDACC K-12 Board of Education meetings.
-Set up summer program with:

- CUC summer sessions
- Regional workshops

-Identify resources and personnel for 2006 NAD Teachers' convention to provide training with specific software packages as well as demonstrations of various educational applications for various grade levels.

Annually

Committee assesses implementation of plan at the local levels.

To enhance the Communication between Conference Technology Leaders an annual meeting is required.

Requirement to use Appendix I

Survey of implementation evaluation worksheet (name change pending) should be utilized by Union administration every three years.

Each education institution is encouraged to use this survey in order to better understand the staff needs for that specific school.

APPENDICES

APPENDIX A

Information Technology Guiding Principles

Goals of Technology Integration in Schools

Technology is not an end in itself. It represents a set of tools to help students and teachers to achieve their educational goals. The primary goal for the use of technology in education is to improve student learning and enhance the efficiency of the educational system. The educational results of technology integration include:

- Students will use computers and telecommunications technology to acquire the knowledge and skills they need for the workplace, or to continue their education at the post-secondary level.
- Teachers will use technology to access information, to enrich student learning, and to collaborate with each other.
- Teachers, administrators, and other school staff will use technology to share instructional and administrative information.
- The SDACC Office of Education will use technology to enhance the timeliness and effectiveness of communications, information sharing, and data exchange with schools across Canada.

These commonly shared principles will facilitate sound information and technology management practices. These principles will maximize the potential for effective integration of technology initiatives.

Student Learning and Instruction

- Technology should be used primarily as a tool for learning, not as a subject of learning.
- Technology should be readily available to students wherever learning occurs and readily available to teachers.
- Technology should be used to provide teachers and students with access to learning resources and information available via global networks, such as the Internet.
- Technology should be used to enhance classroom instruction and support individualized instruction.

Teacher and Staff Development

Educators must take personal initiative to learn about educational technology tools and resources. They also must incorporate appropriate technology into their instruction.

Teachers should be supported in their technology learning and in the effective use of technology resources through access to professional development and training activities.

- All educators should be provided with appropriate hardware and software tools to effectively perform their duties.
- Teachers should have access to support services to enable them to utilize technology effectively.
- Teachers should have access to networks such as the Internet to facilitate information access, communications and collaboration with colleagues.
- Teachers should have access to the latest information that will enable them to share and learn about teaching and student learning approaches that utilize technology.

Technology Plans, Standards, and Guidelines

Planning is vital to achieving effective technology integration.

The primary intent of this *Technology Integration Plan* is to facilitate effective use of information technology throughout the education system.

Hardware and Software

Hardware and software should be effectively maintained and upgraded on a planned, ongoing basis in order to meet changing curriculum and administrative needs.

Hardware and software integration should be planned and managed within the context of denominational and provincial technology directions, standards, and guidelines.

Application Software and Systems

- Packaged software (with a minimum of customization) should be the preferred means for addressing data processing and application systems needs.
- Where application system development is required, a standards-based, modular approach should be used to facilitate compatibility, flexibility, maintenance, and shared use within the education sector.

Networking and Telecommunications

Schools and/or conference networks should be planned using standards-based approaches, and within the context of denominational and provincial technology directions, standards, and guidelines.

APPENDIX B

Sample Objectives for the Integration of Technology Across the K-12 Curriculum

Technology lends itself well to learning and instruction because it is a powerful tool that, when properly implemented, improves student learning and achievement.

Below is an excellent example (from the Simsbury, Connecticut school system) of how technology can truly be integrated across all K-12 curriculum areas. Seventh-day Adventist Schools will need to integrate Bible across the various levels.

Grades K-2

Reading/Language Arts

- Students will, with assistance, enter work such as sight words, numbers, their names or telephone numbers into a template using a word processing/publishing program.
- (Optional Activity) Students will compose work which becomes part of a publishing project such as a class book or individual book. Pupils' writing will be entered using a word processing/publishing program by a student and/or adult.
- Students will illustrate ideas, stories, people, places, scenes, or objects using a paint program.
  (Curriculum Connection with appropriate grade level science and social studies units is suggested for the above mentioned objectives.)
- Students will interact with CD-ROM and DVD discs, which extend and enrich the developmental concepts of the reading/language arts program.

Math

- Students will participate in a graphing project which utilizes a computer graphing program.
- Students will illustrate grade level math concepts using a paint program.
- Students will sort and classify data using appropriate curriculum related software.
- Students will interact with CD-ROM and DVD discs, and the computerized card catalog which extend and enrich the developmental concepts of the math program.

Grade 3

Reading/Language Arts

- Students will, with assistance, enter work such as acrostic poems into a template using a word processing/publishing program.
- Students will illustrate a story, poem, report cover, or book report using a paint program.
- (Optional Activity) Students will compose a cohesive narrative which will be entered into a word processing/publishing program by a student and/or adult.
  (Curriculum Connection with appropriate grade level science and social studies units is suggested for the above mentioned objectives.)
- Students will interact with CD-ROM and DVD discs, and the computerized card catalog which extend and enrich the concepts of the reading/language arts program.

Math
- Students will participate in a graphing project which uses a computer graphing program.
- Students will illustrate grade level math concepts using a paint program.
- Students will sort and classify data using appropriate curriculum related software.
- Students will interact with CD-ROM and DVD discs, and the computerized card catalog which extend and enrich the developmental concepts of the math program.

Grade 4

Reading/Language Arts
- Students will compose, edit, and revise a friendly letter, descriptive paragraph, or narrative using a word processing program.
- Students will illustrate a story, poem, report cover, or illustrative book report using a paint program.
  (Curriculum Connection with appropriate grade level science and social studies units is suggested for the above mentioned objectives.)
- Students will interact with CD-ROM and DVD discs, and the computerized card catalog which extend and enrich the concepts of the reading/language arts program.

Math
- Students will collect, organize, sort, and graph data using a graphing program.
- Students will interact with CD-ROM and DVD discs, and the computerized card catalog which extend and enrich the developmental concepts of the math program.

Science
- Students will access and retrieve science data utilizing CD-ROMs, DVDs, and the computerized card catalog.

Social Studies
- Students will access and retrieve social studies data utilizing CD-ROMs, DVDs, and the computerized card catalog.

Grade 5

Reading/Language Arts
- Students will compose, edit, revise, and produce a hard copy of at least three written works (completed in school) for their writing folders using a word processing program.
- Students will illustrate and enhance writing projects by using changes in format, typeface, font size/style, clip art, and student-created graphics using a word processing program. *(Curriculum Connection with appropriate grade level science and social studies units is suggested for the above mentioned objectives.)*
- Students will interact with CD-ROM and DVD discs, and the computerized card catalog which extend and enrich the concepts of the reading/language arts program.

Math
- Students will collect, organize, sort, and graph data using a graphing program.
- Students will interact with CD-ROM and DVD discs, and the computerized card catalog which extend and enrich the developmental concepts of the math program.

Science
- Students will access and retrieve science data utilizing CD-ROMs, DVDs, and the computerized card catalog.

Social Studies
- Students will access and retrieve social studies data utilizing CD-ROMs, DVDs, and the computerized card catalog.

Grade 6

Reading/Language Arts
- Students will compose, edit, revise, and produce a hard copy of a least three written works (completed in school) for their writing folders using a word processing program.
- Students will illustrate and enhance writing projects by using changes in format, typeface, font size/style, clip art, and student-created graphics using a word processing program.
  (Curriculum Connection with appropriate grade level science and social studies units is suggested for the above mentioned objectives.)
- Students will interact with CD-ROM and DVD discs, and the computerized card catalog which extend and enrich the concepts of the reading/language arts program.

Math
- Students will collect, organize, sort, and graph data using a graphing program.
- Students will interact with CD-ROM discs, and the computerized card catalog which extend and enrich the developmental concepts of the math program.

Science
- Students will access and retrieve science data utilizing CD-ROMs, DVDs, and the computerized card catalog.

Social Studies
- Students will access and retrieve social studies data utilizing CD-ROMs**,** DVDs, interactive laser disks, and the computerized card catalog.

Grades 7-8

Reading/Language Arts
- Students will create, edit, revise, and produce hard copies of any writing assignment using a word processing program.
- Students will illustrate and enhance writing projects by using changes in format, typeface, font size/style, clip art, and student-created graphics using a word processing program.
  (Curriculum Connection with appropriate grade level science and social studies units is suggested for the above mentioned objectives.)
- Students will interact with software programs which improve grammar, punctuation, and word usage as they apply to written communication.
- Students will interact with CD-ROM and DVD discs, and the computerized card catalog which extend and enrich the concepts of the reading/language arts program.
- (Optional Activity) Students will use a multimedia program to create and improve reports and projects assigned as culminating experiences to reading.

Math
- Students will enter data, develop and enter formulas for mathematical calculations into a spreadsheet.
- Students will collect, organize, sort, analyze, and graph data using a spreadsheet program.
- Students will interact with CD-ROM and DVD discs, and the computerized card catalog which extend and enrich the developmental concepts of the math program.

Science
- Students will access and retrieve science data utilizing CD-ROMs, DVDs, such as Science Sleuth and the computerized card catalog.

- Students will gather curriculum-related science data, create a database, organize, and analyze the information.
- (Optional Activity) Students will create a presentation based on a curriculum-appropriate science unit using a multimedia authoring program such as Hyperstudio or Powerpoint.

Social Studies
- Students will access and retrieve social studies data utilizing CD-ROMs, DVDs, and the computerized card catalog.
- Students will gather curriculum-related data, create a database, organize, and analyze the information.
- (Optional Activity) Students will create a presentation based on a curriculum-appropriate social studies unit using a multimedia authoring program such as Hyperstudio or Powerpoint.

Life Education
- Students will use word processing programs and available software to complete work related to communication and refusal skills in the areas of drug use and sexuality.
- Students will access and retrieve life education data utilizing CD-ROMs, DVDs, and the computerized card catalog.

Foreign Language
- Students will interact with available software, CD-ROMs, DVDs, and the computerized card catalog which help to develop and reinforce grammar and vocabulary skills.

Art
- Students will interact with available graphics software, CD-ROMs, DVDs, and the computerized card catalog which help to develop and reinforce creative expression in art.

Music
- Students will interact with software that develops music composition skills and techniques and/or lyric writing skills and techniques.
- Students will interact with available software, CD-ROMs, DVDs, and the computerized card catalog which will help to develop and reinforce creative expression in music.

Life Management
- Students will create, edit, revise, and produce hard copies of any writing assignment using a word processing program.
- Students will illustrate and enhance writing projects using changes in format, type-face, font size/style, clip art, and student-created graphics using a program.
- (Optional Activity) Students will create a database which compares the nutritional needs for various stages of the life cycle or examines the nutritional values of food listed on food labels.
- Students will access and retrieve information relating to life management skills utilizing CD-ROMs, DVDs, and the computerized card catalog.

Technology Education
- Students will create, edit, revise, and produce hard copies of any writing assignment using a word processing program.
- Students will illustrate and enhance writing projects by using changes in format, typeface, font size/style, clip art, and student-created graphics using a word processing program.
- (Optional Activity) Students will create a database which compares aspects of various forms of technology.
- Students will access and retrieve information relating to technology education skills utilizing CD-ROMs, DVDs, and the computerized card catalog.

- Students will interact with a Computer Aided Design (CAD) program to develop and reinforce concepts in the content area.

Grades 9-12

English & Social Studies
- Students will word process papers (essays, term papers).
- Students will access information using CD-ROM and on-line services.
- Students will engage in interactive lessons using distance learning.

Math
- Students will use technology as a tool in math courses.
- Students will apply programming logic to problem solving with appropriate software packages.
- Students will expand the programming options available.
- Students will be afforded the opportunity to extend their knowledge of technology applications.

Science
- Students will use technology for gathering, storing and reporting lab data.
- Students will use technology for the simulation of life and earth sciences.
- Students will be afforded the opportunity to participate in scientific electronic forums.

Foreign Language
- Students will produce word processed papers that are language appropriate using diacritical marks.
- Students will utilize CD-ROM programs and DVDs that facilitate reading comprehension and vocabulary acquisition in the target language.
- Students will participate in teacher authored systems to create in-house interactive activities that remediate, reinforce and enrich the curriculum.

Business Education
- Students will learn the fundamentals of touch keyboarding, word processing, databasing, and spreadsheeting.
- Students will use technology as a tool in all business courses.
- Students will proceed to advanced levels in word processing, desktop publishing, database and spreadsheet applications.
- Students will access information using CD-ROMs, DVDs, and on-line services.
- Students will use distance learning in interactive lessons.
- Students will learn to transfer technological skills to work experience and /or formal post-secondary education and training.
- Students will apply technological skills to interpersonal communication.

Technology Education
- Students will use technology for computer aided drafting and architectural design using state of the art software.
- Students will use technology in graphics communication and printing.
- Students will use technology in automotive diagnosis and maintenance.

Life Management
- Students will reinforce academic skills as they prepare/produce computer documents: create, edit, save, and print text.
- Students will examine and interpret information given on computer aided instruction.
- Students will interact with software that extends and enriches curriculum content.
- Students will conduct research and/or investigations on various curriculum topics.
- Students will create database/spreadsheets related to specific content areas.
- Students will utilize critical thinking and problem solving strategies to complete curriculum assignments.

Music

- Students will use technology for composing musical scores.

Art

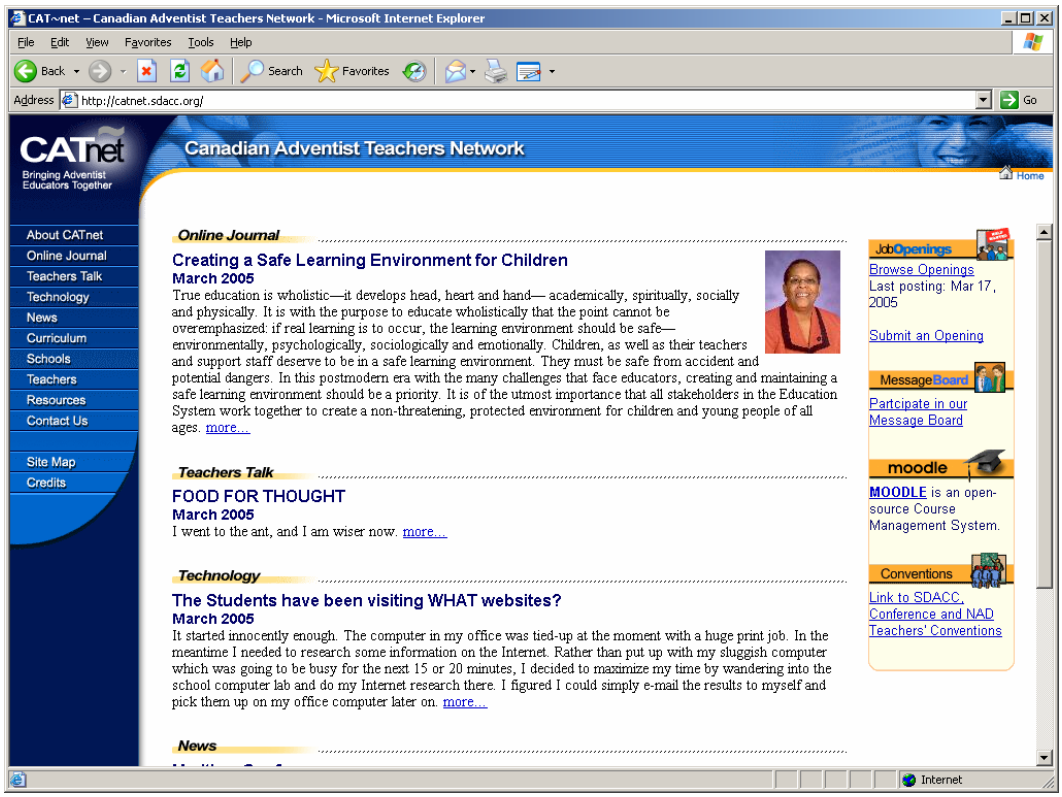
- Students will use technology for computer aided fine and commercial arts.

Educational Support Services

- Students will word process papers.
- Students will receive reinforcement and remediation of core academic skills.
- Students will use technology for application of daily living skills.
- Students will use technology for SAT and GED preparation.

APPENDIX C

CAT~net



Mission and Rationale

The Canadian Adventist Teachers Network (CAT~net) is operated by the Seventh-day Adventist Church in Canada's Office of Education. It is dedicated to promoting excellence in Christian Education by helping facilitate communication and the exchange of ideas among Adventist Educators.

Teachers in mid-size, large, or small isolated schools, will find teaching resources and professional support there. We have entered an era where Canadian geography and fiscal restrictions, dictate the use of a more empowering and relevant system of communication between Seventh-day Adventist educators.

This website presently includes the following sections:
Online Journal, Teachers Talk, Technology, News, Curriculum, Teacher Collaboration, Contact information on schools and teachers, and Resources.

Authors of articles posted on CAT~net are remunerated $75 per article.

CAT~net should encourage teachers to collaborate. This can be done by creating a section where Lesson Plans, Power Points, or other materials could be uploaded and distributed via CAT~net. (Copy right laws regarding materials uploaded would need to be investigated).

Be sure to visit the site regularly: http://catnet.sdacc.org/.

APPENDIX D

Recommendations for Software Selection

Step 1. Analyze Needs

The responsible teacher (or materials selection committee) should first determine whether or not the computer is the appropriate medium to use to satisfy particular instructional goals and objectives. There is always the possibility that a careful needs analysis will result in a decision to use some other teaching-learning strategy.

Needs & Goals. A need is the difference between "where we are now" (e.g. 60% of the students in the ninth grade score above minimum competence on the state science test) and "where we would like to be" (e.g. 90% of the students in ninth grade score above minimum competence on the state science test). "Where we would like to be" is another way of defining a goal.

Objectives. An objective describes "where we would like to be" in more specific terms (e.g. 90% of all ninth grade students will exceed the minimum level of competence on the state competency test administered in the second semester of ninth grade). Objectives must include conditions under which the desired behavior will be demonstrated and the criteria for measuring that behavior.

Educational objectives help us respond to needs by breaking them down into attainable steps, making it easier to get from "where we are now" to "where we would like to be." The educational objective stated above is a "terminal" objective which must be broken down into a series of "enabling" objectives (e.g. By October 31, 2002, all ninth grade students will be able to correctly identify at least five out of seven minerals when shown to them by the teacher.)
After considering the benefits and constraints of each learning method, the teacher (or materials selection committee) should be able to make an informed decision about which medium or combination of media will satisfy the identified needs, goals, and objectives.

Step 2. Specify Requirements

If a careful needs analysis determines that computer assisted instruction is one of the methods that will be used to meet identified instructional objectives, the teacher (or materials selection committee) should then specify the requirements for the computer software.

Factors to consider in specifying requirements for software include: compatibility with available hardware; cost (Will the school need multiple copies of the software? Will a site license be necessary?); user friendliness; level of interaction desired; adequacy of documentation; access to technical support via toll-free number; and of course, direct correlation with the instructional objectives and curriculum requirements identified in the needs analysis.

Research suggests that educators should apply the following criteria within the context of their objectives and the students' needs: content; instructional presentation; demands placed on the learner; technical features; and documentation and management features.

Step 3. Identify Promising Software

If requirements are specified in detail, the teacher (or materials selection committee) will have a good head start when it comes to identifying promising software.

There are many ways to identify promising software, and the responsible selector should use as many of them as possible. Catalogs still remain an important source for descriptions of software. Most district level educational communications/media centers are on catalog mailing lists from virtually all software producers and wholesalers.

Software is advertised, described, and often reviewed in magazines and journals found in schools and universities.

Teachers who have access to the Internet can find out about software from other teachers by joining a listserv. Posting a question such as, "I am an eighth grade science teacher and I am looking for interactive software for a PC environment that will teach my students how to . . . " is likely to bring dozens of responses.

Many listservs are archived on the AskERIC web site (http://ericir.syr.edu/). Directions for joining a listserv may be found in the archives, or mailto:askeric@askeric.org, for more information on listservs.

The above are but a few sources for identifying promising software. The more precisely the requirements are specified in Step 2, the easier it will be to screen out those products that are least likely to meet the user's specifications and the easier it will be to focus on more promising products.

CAT~net (http://catnet.sdacc.org) provides the opportunity for teachers to submit reviews of software and strategies that they are using. Be sure to check these out and contribute your successes.

Step 4. Read Relevant Reviews

After a list of promising software has been identified (using the suggestions outlined in Step 3), the teacher (or materials selection committee) may be able to narrow or expand the list by reading relevant software reviews. (*see Appendix E for Internet sites*.) It is very important to realize, however, that reading reviews should not take the place of previewing, described in Step 5.

Software reviews may be found in educational journals, some of which may be identified by searching the ERIC database using appropriate descriptors (e.g. software, selection, evaluation, elementary, secondary).

Evaluation services such as EPIE, subscribed to by many school and public libraries, provide a database of selected software evaluations and reviews. A visit to the library is an important part of responsible software selection.

Keep Step 1 (Analyze Needs) and Step 2 (Specify Requirements) in mind as you read the reviews. It is also important to note the audience upon which the review is based. A software program may have received a poor review because it was tested with a different audience than the one you have in mind.

Reviews are important screening tools when used as part of the entire selection process.

Step 5. Preview Software

The most effective way to judge whether software is appropriate or not is to observe students as they interact with the program. Are the educational objectives achieved when the student uses the program?

The responsible teacher should not purchase software without previewing it with his or her own students. Preview as many programs as you can find that appear to meet your

selection criteria. Some software vendors will allow free preview of an entire program. Some vendors will provide a free demonstration disk containing a subset of a larger program.

Some vendors will not allow preview without a purchase order, but will allow the teacher to return the program within a specified time limit with no financial obligation. In some situations, a teacher may be able to borrow a program from another teacher for preview purposes.

Step 6. Make Recommendations

After potential software has been previewed, it is time to make recommendations for purchase. The responsible software selector should be able to:

- Select the most desirable software after a systematic evaluation of all alternatives in terms of educational objectives and constraints;
- Establish a quantitative method for rating each alternative against the selection criteria established in Step 2;
- Evaluate the relative importance of each selection criterion, (i.e. previewing should probably be rated relatively high in importance); and
- Create a written record outlining the reasons why a piece of software is recommended or not recommended for purchase.

For software that is recommended for purchase, teachers should include suggestions for optimal use that might have become apparent during the preview period.

Step 7. Get Post-Use Feedback

After software is purchased and used with students, it is important for the teacher to determine the conformance or discrepancy between all of the enabling objectives specified in Step 1 and the student performance actually obtained using the chosen computer software.

The teacher should keep records on the relative extent to which each objective is met or not met. Objectives not met may be addressed by some other software program or by another teaching/learning method.

Post-use feedback can be a significant help to a school's systematic process of software selection, purchase and use.

The accumulation of user feedback, including anecdotal experience on the part of both teachers and students, will naturally serve to improve future needs analyses (Step 1) and all succeeding steps in a constantly improving software selection process.

APPENDIX E

Purchasing a New Computer

Purchasing a New Computer

Purchasing a new computer system can be an intimidating experience. However, it can afford the first time buyer an opportunity to really get to know the "ins and outs" of computers. Often when purchasing a computer system the decision as to what computer to buy is either dictated by money or the savvy of some salesperson. Favorite hooks are:

1. *You need to buy this type of system because it has so much more software available for it.* Be aware that just because a given system has more software doesn't mean that a school will be able to use or afford all of that software.

2. *You need to buy this type of system because that is what the business world uses and you want to have your students learn on that type of machine.* The reality is that students will find themselves in work situations which will be running software that is available on most platforms (eg. Microsoft Word runs on both PC and Macintosh platforms and in fact the same reference guide is used for both).

   Also training your student on WordPerfect doesn't guarantee that they will be using WordPerfect in their work place. It is better to give them a basic, general knowledge and comfort using a computer thus giving them both the confidence and ability to adapt to whatever software they may be using.

3. *Such and such a system is more expensive than the other.* Macintosh is said to be more expensive than a PC system. Yes and no, if you compare prices with highly rated companies (eg Apple, Dell, IBM, etc) you will find pricing very competitive.

In purchasing a computer system the following steps should be taken in the sequence outlined below:

1. *Identify basic needs.*

   - What is the computer going to be used for? Some common uses are:
     -Word-processing.
     -Database.
     -Graphics/Page Layout.
     -Accounting.
     -Internet access, email.
     -Teacher/Administrative tasks.
   - Who is going to be using it?
   - Identify from provincial curriculum guides what the computer system should be able to do in order to fulfill the curriculum objectives and expectations.

- What administrative needs will the computer be used for?
- Will the Internet and its offerings be used?

2. *Find software that will fulfill the needs list that you identified earlier.*

- Purchase software with industry standards which are available on either the PC or Macintosh platforms. The following is a list of popular and business standard software available on both platforms and widely used in the school environment:
  –Microsoft Works, Word, Excel, PowerPoint.
  –ClarisWorks.
  –Adobe PageMaker, Photoshop.
  –Hyperstudio.
- Find the ratings for the software.
- Figure in the cost of multi-user licensing costs (eg. lab packs, site licensing, etc.)

3. *Find out what type of computer system will run the software that has been identified in the previous section. Things to consider here are:*

- Identify lines of support.
  - Is the company you are purchasing the computer from willing to give you support (including coming to your school to help) and for how long?
  - What is the public school district using and can you tap into some of their resources?
  - Who is your immediate resource person that you can turn to help for? Buy what they can help you with.
- How easy is the system to use? Take the computer for a test drive! Do common operations on each type of computer (PC or Macintosh) such as installing new software, copying files from one disk to another, renaming files, setting up directories, finding files, etc. Compare the ease of use of both systems.
- Is the system built on an 'open platform' or does it have proprietary components? Propriety systems may have a lower initial cost, but will not be as easily upgraded or repaired as 'open system' machines.
- Consider any hidden costs. What will it cost to network computers together? In the case of printers, what are the consumable costs?
- Ensure that systems purchased meet or exceed any 'Minimum Requirements' listed for the software you plan to use. Most software will list the 'Recommended Requirements'. All hardware purchased should meet this standard.
- Be aware that there are two (2) common computer platforms currently considered standard. — Macintosh and PC systems. You

> would do yourself a service if you carefully research both systems for their strengths and weaknesses.

Now a school should be ready to intelligently purchase a computer system confident that thorough research has been done.

APPENDIX F

Network Advantages and Disadvantages

Stand-alone computers are limited in the resources they can provide, especially information resources.

The variety of programs available for students and teachers is growing rapidly. These include productivity programs, simulations, curriculum-related materials, remedial materials, and programs which manage and monitor.

At the same time, through an Internet connection, the ability for a computer to interact with information sources outside of the school is increasing exponentially. Networks can allow for system-wide Internet access. One Internet feed can be shared over a Local Area Network. If a DSL or Cable Internet feed is possible, then the entire network can have Internet access provided by this one feed. While this is also possible with a single dial-up service, the speed will not be adequate for multiple connections. For areas that do not have DSL or Cable access, a wireless or satellite based Internet feed can be connected to the network. The single point on contact with the Internet will allow for more efficient use of the resources and provide a more manageable means for content filtering and security measures.

Networks allow users from any location to share resources, programs and data.

Networking allows the sharing of printers and other peripheral devices such as scanners, CD-ROM/DVD players, plotters, modems, tape backup units, etc. from any location. Information resources can be accessed from the classroom. CD-ROM servers can provide access to resources such as encyclopedias, historical timelines or collections of images by several students at a time. An Internet connection will allow one or more students, from any computer workstation in the school, access to databases stored on large computers all over the world, or to directly access the same news sources used by newspapers, radio stations and television stations.

Network software enables the teacher to share data files as well as program files with all network users. Teachers can create publicly accessible areas on the server that will be used to store assignments, tests and other files that students may need. The teacher only has to save a particular file once to make it accessible to all students.

Networks are designed to provide the security lacking in stand-alone computers.

Personal work files are safer as part of a network. Students and teachers can save their personal work in private spaces on the network servers.

Access to those spaces is password protected. This eliminates the use of floppy disks and /or network users' worry about loss of information, damaged or lost floppy disks.

Networks allow the storage of copies of programs in locked, read-only spaces on the server. This allows many users to run the program but prevents anyone from tampering with the program itself. Networking software will also protect program files from unauthorized copying.

While networks can provide increased security, they can also provide various opportunities for unauthorized access that are

not possible on stand-alone systems. It is therefore critical to have reputable and knowledgeable individuals involved in the set-up and maintenance of networked systems.

The maintenance of a network is easier and more efficient than maintenance of a large number of stand-alone computers.

Networks provide easier maintenance, upgrade of software applications, and troubleshooting user problems. These tasks can be efficiently performed from remote locations and are therefore more cost effective.

Storing data on a network server enables more manageable back-up strategies to protect your critical data. However, since the data is concentrated in one location, it is imperative that a comprehensive back-up strategy is employed and maintained, including off-site storage of backup media.

Networks provide the flexibility for individualized instruction.

The need for individualization of student learning lends itself to computer use. Schools can provide individualization through technology. Integrated learning system software provides individualized instruction, enrichment and remediation activities.

Networking can centralize many of the administrative tasks.

Administrative applications allow authorized users the ability to store, access, manipulate and share student data, personnel records, and purchasing information. Secured through passwords, stored information can be immediately accessed for the completion of state and federal reports; student enrolment studies and projections; transportation planning; student/employee attendance; electronic transfer between schools and Board of Education offices; follow-up on purchasing, and special education record keeping requirements.

Many networks systems will provide workstation imaging or "lock-down" solutions to aid in workstation deployment and re-creation of a desktop when problems occur.

APPENDIX G

Child Safety on the Internet

Children and teenagers can benefit greatly by using the Internet. However, the Internet, like society in general, is made up of a wide array of individuals. Some Internet risks are:

- Exposure to inappropriate material. Children and teenagers may be exposed to material of a sexual or violent nature.
- Exploitation. In an increasing number of cases pedophiles have used Internet services to gain a child's confidence and then arrange a face-to-face meeting. Unsupervised chat sessions should not be allowed.
- Harassment. A third risk involves children encountering e-mail messages that are harassing, demeaning, or belligerent.

Parents and teachers must take responsibility for children's computer use, especially on the Internet. Common sense rules for children include the following:

1. I will not give out personal information such as my address, telephone number, parents' work address/telephone number, or the name and location of my school without my parent's permission.

2. I will tell my parents right away if I come across any information that makes me feel uncomfortable.

3. I will never agree to get together with someone I "meet" online without first checking with my parents. If my parents agree to the meeting, I will be sure that it is in a public place and bring my mother or father along.

4. I will never send a person my picture or anything else without first checking with my parents.

5. I will not respond to any messages that are mean or in any way make me feel uncomfortable. It is not my fault if I get a message like that. If I do I will tell my parents right away so that they can contact the online service.

6. I will talk with my parents so that we can set up rules for going online. We will decide upon the time of day that I can be online, the length of time I can be online, and appropriate areas for me to visit. I will not access other areas or break these rules without their permission.

These rules are taken from the brochure *Child Safety on the Information Highway* by Lawrence J. Magid. Printed copies are available free by calling 800-843-5678. For more safety information, check out http://www.safekids.com/.

The following Internet sites offer excellent suggestions for Internet safety for children and teenagers:

Guiding Children Through Cyberspace -- URLs
(http://www.kpr.edu.on.ca/BoardInfo/Services/Educ/LRC/intrntps.htm)
Great resource with over 50 links! The purpose of this page is to gather together tools and opinions on how to guide children's use of the Internet.

Staying Street Smart on the Web
(http://www.yahooligans.com/docs/safety/index.html). Practical advice from Yahoo. They also have a good section titled, (http://www.yahooligans.com/docs/safety/par

ents.html). What you should know as a parent....

Safety Tips
(http://www.ala.org/ala/alsc/alscresources/forlibrarians/internettech/internetprivacysafety.htm)
Brief tips on child safety on the Net. From the American Library Association.

Kid Safety on the Internet
(http://www.ou.edu/oupd/kidsafe/start.htm)
Another short list of practical tips for safe Net surfing.

Netsurfing Aids for Child Safety
(School and Home Solutions)
(http://www.consumerreports.org/main/content/display_report.jsp?FOLDER%3C%3Efolder_id=348251&ASSORTMENT%3C%3East_id=333133&bmUID=1110340718510)
(http://www.ala.org/ala/aasl/schlibrariesandyou/parentsandcomm/filterproscons.htm)

The above links point to information and sites about net filtering and content blocking software. The links below point to some common and trusted filtering programs.

"Internet filtering programs serve several purposes. They protect users (usually children or even corporate users) from content deemed inappropriate. These programs can usually filter web sites, individual pages, newsgroups, and individual postings or e-mails. Even block users from a particular activity (like newsgroups, or chat rooms). Filtering is done by either pre-programmed blockings of sites or user-defined blocking, which can be done on a site-by-site basis, or based on words in the site name, page name, or web page content. Some programs filter inappropriate content through proxy based internet connections whereby your internet service is routed through another server which blocks inappropriate content. This type of filtering is advantageous to a school setting/network because it requires very little time to set-up. Of course users have different tolerances for content of a sexual, violent, religious/sacrilegious, or profane nature. Good blocking programs allow users to set "levels" of tolerance, delete "blocking" words from a list, and even add-back sites that appear to break a rule (a Breast Cancer awareness web site, for example)"

--foundlocally.com

Here are some common Internet filtering programs:

- Bess (www.n2h2.com)
- Cyber Patrol (www.microsys.com)
- Cybersitter (www.solidoak.com)
- Cybersnoop (www.pearlsw.com)
- I-Gear (www.urlabs.com/public/prod-servs)
- Net Nanny (www.netnanny.com)
- Net Shepherd (www.netshepherd.com)
- SurfWatch (www.surfwatch.com/surfwatch/products.html)
- Websense (www.netpart.com/websense97/index.html)
- X-Stop (www.xstop.com)
- S4F filterpak (www.s4f.com)

For schools with a computer network, Network versions of many of the software listed above is available. Its use can help to keep the total cost down as well as make management and reporting much easier. Another possibility is the use of "appliances" that are self contained devices that act as the Internet gateway (some have additional firewall anti-virus and other security features) By installing this one device on your network, your entire Internet feed can be filtered. Following is a list of several devices that could be considered.

ComSifter (www.comsift.com)

NetSentron (www.netsentron.com)
iPrism
(www.stbernard.com/products/iprism/products_iprism.asp)

ContentKeeper
(www.contentkeeper.com/products/appliances.html)

Symantec Gateway Security
(www.symantec.com/smallbiz/gtw/)

"How to protect your kid from internet predators"
A Family Internet article on this issue which also lists other resources.
(http://familyinternet.about.com/parenting/familyinternet/library/weekly/aa071200a.htm)

Safeguards
A list of tips on safeguarding kids from Internet predators.
(http://www.enough.org/safeguards.htm)

Missing program
A great kit involving a CD and Internet resources put together in a format for kids to work through, educating them on safe Internet practices.
(http://www.livewwwires.com)

APPENDIX H

Acceptable Use Policies

An AUP (Acceptable Use Policy) is a written agreement, signed by students, their parents, and teachers, outlining the terms and conditions of computer and Internet use. It specifically sets out acceptable uses, rules of online behaviour and access privileges. Also covered are penalties for violations of the policy including security violations and vandalism of the system.

All students using a school's computer system or Internet connection should be required to sign an AUP, and know that it will be kept on file as a legal, binding document.

Acceptable Use Policies (AUP's) and Guidelines
(http://www.monroe.lib.in.us/~lchampel/netadv3.html**). Th**is site provides a wide range of information on AUPs, including guidelines for writing and AUP, examples of AUP, and templates.

K-12 Acceptable Use Policies (AUPs) Frequently Asked Questions (FAQ).
(http://www.cusd.claremont.edu/www/people/rmuir/rfc1578.html). Good overall document. Lists common questions and answers about the creation of Acceptable Use Policies (AUPs) governing Internet use in a K-12 setting.

Example of an Acceptable Use Policy
School District #42 (Maple Ridge - Pitt Meadows)

School District #42 wishes to allow its students to be able to access curriculum based information resources no matter where they may be. To this end, the District permits its students to access the Internet. The responsible use of District facilities is the overriding goal of this policy.

This interconnected world-wide web of computers can provide the students with access to the most recent research and the most up-to-date statistics and opinions. However, the Internet can also provide the students with access to less than desirable information.

While it is in fact, impossible to completely protect students from accidental exposure to inappropriate materials it is important that the district have an acceptable use policy to provide guidelines for the use of this vital informational resource by its students.

It is expected that students will conduct themselves according to the social and cultural norms of their community.

1. School use of Internet is under the direction/supervision of school staff and students are obligated to use it appropriately. They should conduct themselves responsibly, ethically and politely while on-line.

2. Inappropriate use of the Internet is prohibited. Use of obscene or illegal materials, or indulging in activities in support of such activities is prohibited.

3. Students should not allow themselves to become involved in activities or discussions which are illegal or ill-suited and that might include opening themselves to access by people wishing to make inappropriate contacts with students.

4. Appropriate etiquette of Internet use includes:

    - respect for the rights of others.
    - prompt removal of electronic mail.
    - moderate information storage.
    - acceptance of responsibility to use the Internet wisely.

5. The School District will not permit its Internet access points to be used for illegal, obscene, or inappropriate purposes.

6. The Internet user accepts the School District #42 (Maple Ridge- Pitt Meadows) regulation and control of CLN use and consents to investigations, where necessary, relating to misuse of CLN as defined by the Ministry of Education (Technology and Distance Education Branch) CLN Acceptable Use Policy.

7. The student and parent will not hold the teacher, school or District liable for any materials retrieved from the Internet.

8. Abuse of the acceptable use policy will lead to suspension and/or termination of the students access to the Internet. The time for this to be determined based upon previous behaviour. (Illegal activities are covered under individual schools' Codes of Conduct and various other District policies.)

9. This agreement shall remain in effect as long as the student is enrolled in School District #42 or until terminated by either party by notification in writing.

The District believes that the benefits of Internet access far outweigh the risks and that the key to safe Internet usage is based on education and example.

Goals and Expectations

Student use of the Internet is under the direction and supervision of the teacher. Parents may also play a part in supervising appropriate use outside of the school. Under school supervision, the rationale for student use is based on the importance of achieving the following goals:

1. Learn the basic procedures and skills to log into a host computer.

2. Demonstrate a knowledge of telecommunications technology and how it may be used to enhance classroom activities and personal growth.

3. Practice good net-skills by being polite and considerate, and closing unneeded Internet connections.

4. Learn to participate in discussion forums, listservs, conferences and so on where appropriate.

5. Learn to use search tools (such as Veronica, Archie, Anarchie, WAIS to locate and research curriculum related activities, assignments and projects.

6. Learn to utilize e-mail for individual, or group use.

Rationale

We believe that while there are both pro's and cons to student Internet access, it is a valuable educational tool that can not be ignored if we are to properly prepare students for the challenges of the information age. At this time, full student access via CLN and Mosaic for educationally acceptable uses is critical for our students.

District Internet Guidelines for Access

Students and teachers are expected to conduct themselves in a socially acceptable manner at all times while on the Internet. Access is to be limited to either:

1. Directly curricular related information searches, or

2. E-mail with other students or teachers where the interaction is based on acceptable community standards.

The following responsibilities are expected of all Internet Users in our District:

1. Users will not use the Internet for illegal, inappropriate or obscene purposes.

2. Users will not use the Internet for any product and/or service advertisement or political lobbying.

3. Users are expected to follow the CLN responsibilities code at all times when using the Internet.

Failure to comply with these guidelines will result in the termination of network privileges for an individual or group.

Roles and Responsibilities

School Board

- Have and communicate a policy on the student use of the Internet.

- Appoint a committee of involved teachers, administrators and parents to review this policy every two years.

- Provide schools with a standard informed consent form for parents.

School

- Have a policy on student's use of the Internet that follows the board policy.

- This policy to be in the staff handbook and reviewed with the staff before students are given Internet access.

- Communicate both the educational benefits and the potential dangers to the staff and students.

- Provide teaching staff with a standard informed consent form for parents.

Teacher

- Review Board Internet policy and comply.

- Review School Internet policy and comply.

- Review student responsibilities with students before Internet access.

- Have all parents sign an informed consent form before students have Internet access.

- Provide students with Internet access but also provide an appropriate level of supervision to ensure that the District Internet Guidelines are followed.

Parent/Guardian

- Be aware of the consequences set out by the school and the district for unacceptable and inappropriate use.

- Be aware of the risks inherent in that access, while encouraging safe and acceptable practices of use.

- Read the acceptable use guidelines and the school/district policies as they apply to computer/Internet access and permit their son/daughter access by signing the informed consent form.

- Report misuse of the Internet to teacher or administrator.

Student

- Sign the informed consent form and understand compliance with this is a condition of access to district computer and electronic resources, and non-compliance may have other consequences as well.

- Conduct all of his/her activities in accordance with the guidelines and policies set out for the use of computer and electronic resources related to the school.

- Conduct all activities in a responsible, ethical, legal and courteous manner, especially when contacting others on the Internet network.

- Report misuse of the Internet to teacher or administrator.

Acceptable Use Policy Form

Students who would like access to the District Wide Area Network and/or Internet services should complete this form and return it to their sponsoring teacher.

Name of Student_____

School Name_____

I have read the "Acceptable Use Agreement" for the District Wide Area Network/Internet and agree to abide by the provisions therein.

Applicant's Signature_____

Parent Consent and Signature_____

I have read the attached School District #42 "Acceptable Use Agreement" for the District Wide Area Network/Internet and agree to abide by the provisions therein. I understand that although School District #42 has taken reasonable precautions to ensure that inappropriate material is unavailable through the network, it is not possible to completely eliminate the possibility of exposure to such materials. I give permission for my child to receive access to the District Wide Area Network/Internet.

Print name and relationship to student_____

Parent/Guardian signature_____

Consent and Signature of Sponsoring Educator_____

I give permission for _____ (name of student) to receive access to the District Wide Area Network/Internet.

Print name and position_____

Sponsoring Educator's Signature_____

APPENDIX I

Technology Integration Plan Evaluation Worksheet/Survey

The following worksheet statements are designed for simple responses in regard to technology implementation. There are three possible responses for each statement. The responses are Yes, No and NA (not applicable). Mark the one that best describes your current situation. Where possible record comments as you work through the evaluation. These comments can then be used to revise and substantiate your plan. The following is provided as a sample only, please modify to fit your local situation. The survey instrument will be used at the end of the technology plan to evaluate the extent of its implementation.

1. ***Vision, Goals and Objectives***

- Have you been able to implement the goals and objectives set out in the plan? If not specify the areas which are deficient, and determine what changes need to be made.
  (Yes__ No__ NA__)

Comments: _____

- Do your goals and objectives still reflect your vision statement and philosophy?
  (Yes__ No__ NA__)

Comments: _____

- Have you been able to achieve the goals set forth in the plan?
  (Yes__ No__ NA__)

Comments: _____

- Are your objectives still relevant to current educational trends?
  (Yes__ No__ NA__)

Comments: _____

- Have students achieved the goals and objectives of the plan? If not, specify and brainstorm solutions to be added in the revised plan.
  (Yes__ No__ NA__)

Comments: _____

2. ***Witness and Service***

- Have you been able to implement the goals and objectives set out in the plan? If not, specify the areas which are deficient, and determine what changes need to be made.
  (Yes__ No__ NA__)

Comments: _____

- Have the recommendations of the plan proved relevant to the needs of your community?
  (Yes__ No__ NA__)

Comments: _____

- Have the students been able to experience faith enhancement through the plan?
  (Yes__ No__ NA__)

Comments: _____

3. ***Curriculum Integration***

- Have you been able to implement the goals and objectives set out in the plan? If not, specify the areas which are deficient, and determine what changes need to be made.
  (Yes__ No__ NA__)

Comments: _____

- Do the recommendations in the plan meet the specific curriculum requirements of your province?
  (Yes__ No__ NA__)

Comments: _____

- Have teachers incorporated technology in their day-to-day instruction?
  (Yes__ No__ NA__)

Comments: _____

- Are the students using technology in their day-to-day class-work?
  (Yes__ No__ NA__)

Comments: _____

- Has relevant educational software been acquired to support the curriculum?
  (Yes__ No__ NA__)

Comments: _____

- Is the Internet available and in use for instructional purposes in the school?
  (Yes__ No__ NA__)

Comments: _____

- Have technologies been incorporated into all curricular areas?
  (Yes__ No__ NA__)

Comments: _____

4. ***Professional Development***

- Have you been able to implement the goals and objectives set out in the plan? If not, specify the areas which are deficient, and determine what changes need to be made.
  (Yes__ No__ NA__)

Comments: _____

- Are the teachers proficient in the use of available technology?
  (Yes__ No__ NA__)

Comments: _____

- Have training opportunities been provided for the teachers to become more proficient in the use of technology?
  (Yes__ No__ NA__)

Comments: _____

- Do teachers have a source of information and support for their computer generated headaches?
  (Yes__ No__ NA__)

Comments: _____

5. ***Administration***

- Have you been able to implement the goals and objectives set out in the plan? If not, specify the areas which are deficient, and determine what changes need to be made.
  (Yes__ No__ NA__)

Comments: _____

- Have sufficient funds been set aside for the implementation of the plan?
  (Yes__ No__ NA__)

Comments: _____

- Has the administration modeled technology literacy?
  (Yes__ No__ NA__)

Comments: _____

- Does the administration use modern technology to communicate with their teachers?
  (Yes__ No__ NA__)

Comments: _____

- Has the administration updated record keeping and report making to take advantage of modern technology?
  (Yes__ No__ NA__)

Comments: _____

- Has the administration been in-serviced?
  (Yes__ No__ NA__)

Comments: _____

6. ***Technical Support (Hardware and Software)***

- Have you been able to implement the goals and objectives set out in the plan? If not, specify the areas which are deficient, and determine what changes need to be made.
  (Yes__ No__ NA__)

Comments: _____

- Has the hardware purchased met the needs of teachers and students?
  (Yes__ No__ NA__)

Comments: _____

- Has the software purchased met the needs of the teachers and students?
  (Yes__ No__ NA__)

Comments: _____

- Are future needs being planned for now so that new purchases will mesh with old equipment?
  (Yes__ No__ NA__)

Comments: _____

- Does your three year plan still make sense in light of new technological developments?
  (Yes__ No__ NA__)

Comments: _____

- Have purchases been made in accordance with the objectives of the plan?
  (Yes__ No__ NA__)

Comments: _____

7. ***Funding***

- Have you been able to implement the goals and objectives set out in the plan? If not, specify the areas which are deficient, and determine what changes need to be made.
  (Yes__ No__ NA__)

Comments: _____

- Have sufficient monies come in to cover the purchases outlined in the technology plan?
  (Yes__ No__ NA__)

Comments: _____

- Are there other sources of money, previously unidentified, which should be added to the plan?
  (Yes__ No__ NA__)

Comments: _____

- Has a fund been set up to collect the depreciation allowance so that new technology can be purchased to replace outdated equipment?
  (Yes__ No__ NA__)

  Comments: _____

- Have those who had donated been shown the benefits of their donation for the students?
  (Yes__No__NA__)

  Comments: _____

- Analyze the effectiveness of disbursement decisions in light of implementation priorities.
  (Yes__No__NA__)

  Comments: _____

8. ***Constituency and Parent Support***

- Have you been able to implement the goals and objectives set out in the plan? If not, specify the areas which are deficient, and determine what changes need to be made.
  (Yes__ No__ NA__)

Comments:_____

- Is your constituency aware of the success and future needs of your school?
  (Yes__ No__ NA__)

Comments:_____

- Have you conducted a parent/constituency survey to assist in the evaluation of your technology plan?
  (Yes__ No__ NA__)

Comments: _____

- Have the technical abilities of your students been showcased to the local constituency?
  (Yes__ No__ NA__)

Comments: _____

- Has the community had opportunity to access the technologies in the school through workshops and information nights?
  (Yes__ No__ NA__)

Comments: _____

Technology Integration Plan - Current Practices Survey

(Revised 2005-03)

Note: *This survey may be used by schools and conferences to gather information to verify if their Technology Integration Plan goals have been attained. The information may also become the basis for a revised technology integration strategy.*

Name: _____ **Occupation:** ☐Teacher ☐Principal ☐Other_____

A) Goals Validation:

Instructions: Please rank the following 6 goals of the SDACC *Technology Integration Plan* according to your personal evaluation and experience. Please mark every statement.

(Please circle one response per goal)

	Completely	Most Often	Often	Somewhat	Not at all
1. Students and teachers are using technology to enhance learning across all curriculum areas.	**5**	**4**	**3**	**2**	**1**
2. All teachers have access to technology training and support programs.	**5**	**4**	**3**	**2**	**1**
3. Technical assistance is provided for schools and teachers as they implement current software and hardware.	**5**	**4**	**3**	**2**	**1**
4. Financial support for technology integration in SDA schools across Canada is encouraged and implemented in local conference, and local school boards/operating committees.	**5**	**4**	**3**	**2**	**1**
5. A variety of infrastructures are established to ensure that the *Technology Integration Plan* is meeting the needs of schools and constituencies.	**5**	**4**	**3**	**2**	**1**
6. The *Technology Integration Plan* is critically evaluated and updated periodically to reflect current realities in technology.	**5**	**4**	**3**	**2**	**1**

B) Goals Attainment:

Goal 1: Educational Technology Use

Please rate you skill in (circle one response per question):

	Excellent	Adequate	Minimal	No Skill
1. The use of computers' basic management features	**4**	**3**	**2**	**1**
2. Use of the Internet	**4**	**3**	**2**	**1**
3. Use of email	**4**	**3**	**2**	**1**
4. Use of Word Processing software	**4**	**3**	**2**	**1**
5. Use of Presentation software	**4**	**3**	**2**	**1**
6. Use of Grade book or school administration software	**4**	**3**	**2**	**1**
7. Use of Spreadsheet software	**4**	**3**	**2**	**1**
8. Use of Database software	**4**	**3**	**2**	**1**
9. Use of Scanner and Digital Camera	**4**	**3**	**2**	**1**
10. Use of Web Site Design software and Web Site Posting services	**4**	**3**	**2**	**1**
11. Use of Image Editing software	**4**	**3**	**2**	**1**

Please <u>circle all that apply</u>:

A. Please identify where you use a computer at your school:
1=On my desk 2=Shared in my office 3=In another office 4=Classroom 5=Library 6=Other_____

B. For what purpose(s) do you use a computer at your school?
1=Instruction 2=Office work/class prep/grading 3=Library research 4=Class work 5=Other_____

Goal 2: Technology training and support (Please <u>circle one</u>)

C. How adequate is the computer training and support you receive at your school/conference?
6=Extremely adequate 5=Very adequate 4=Adequate 3=Somewhat adequate 2=Not adequate 1=Non existent

D. How would you rate your acquired skills in technology to enhance the learning experiences of your students?
6=Excellent 5=Above average 4=Average 3=Below average 2=Poor 1=Non existent

E. Would you make more use of the computer if you had more computer training? 2=Yes 1=No

Goal 3: Technical Assistance-Hardware and software (please <u>circle one</u>)

F. How adequate is the computer hardware purchased by your school/institution?
1=Not adequate 2=Somewhat adequate 3=Adequate 4=Very adequate 5=Extremely adequate

G. How adequate is the computer software purchased by your school/institution?
1=Not adequate 2=Somewhat adequate 3=Adequate 4=Very adequate 5=Extremely adequate

H. Are the computing facilities currently available to you sufficient for your needs?
3=Yes 2=No 1=Not applicable

I. Does your school/conference have a technology leader responsible for technical assistance and training?
3=Yes 2=No 1=Not applicable

Goal 4: Financial support for technology integration in SDA schools across Canada

Please rate the financial support for technology integration by (Please <u>circle one</u>):

J. Your school/board
4=Excellent 3=Sufficient 2=Minimal 1=No response/Don't know

K. School's community/parents
4=Excellent 3=Sufficient 2=Minimal 1=No response/Don't know

L. Your conference
4=Excellent 3=Sufficient 2=Minimal 1=No response/Don't know

M. SDA Church in Canada
4=Excellent 3=Sufficient 2=Minimal 1=No response/Don't know

Goal 5: Infrastructure to ensure that this *Technology Integration Plan* is meeting the needs of schools and constituencies

N. In your opinion, how efficient is your conference/school technology committee in overseeing and evaluating the progress made towards implementation of the SDACC *Technology Integration Plan* at the local level? (**Please circle one**)

4=Extremely effective 3=Very effective 2=Somewhat effective 1=Not effective

Goal 6: Ongoing critical evaluation and update of the *Technology Integration Plan*

O. How often should your school and conference's *Technology Integration Plan* be evaluated and updated? (**Please circle one**)

3=Every year 2=Every three years 1=Every year evaluation with yearly update and a revision of the plan after three years

Open-ended Question

Please tell us in your own words as briefly and clearly as possible, what we would need to do to help improve technology integration in our schools (please answer below and on the back of this page if needed)?

APPENDIX J

Glossary of Common Computer and Internet Terms

Appliance: A stand-alone, device that has a dedicated function (i.e. Content Filter or Firewall). These have software and hardware pre-installed and minimal time is needed to configure for your location. Advantages are the ease of installation and management, generally lower Total Cost of Ownership. Disadvantages may be less flexibility and user serviceability.

Bulletin Board Service (BBS): A place on the network where public messages can be left and one message can reach all users.

Camcorder: A hand-held video camera.

CD-ROM: Stands for Compact Disk Read Only Memory. An optical disk that can only be read from and not written to.

Central Processing Unit (CPU): The main component, or "brain," of a computer. It is the chip that performs all of the information processing. The piece of hardware that contains the CPU is often called the CPU.

Clip Art: A series of picture files that are stored on a disk that can be "clipped" and pasted into a document.

Computer: An electronic machine that can perform calculations and can process a large amount of information accurately and much more rapidly than the human brain.

Computer Generated Effects: The use of a computer in making a film to create certain effects.

Computer Graphics: The creation, display, and storage of pictures with a computer.

Computer-Related Vandalism: Act of damaging, altering, or destroying a computer, computer peripherals, computer software, or computer service.

Computer Virus: A computer program that can reproduce by changing other programs to include a copy of itself. It is a parasite program, needing another program to survive.

Connectors: A term used in searching databases which indicates which records satisfying one statement/rule/criterion or both should be selected. The two most common connectors are "and" and "or."

Data: A general term for pieces of information that a computer processes.

Database: A collection of data organized for search and retrieval. Computer databases are accessed by computer; print databases are available in printed format. A current database is a collection of data updated frequently (hourly, daily, weekly, etc.) and is usually a computer database.

Desktop Publishing: A computerized layout program that integrates graphics and text to produce a professional looking document.

Digitized Effects: To change analog information into digital information that the computer can use to produce certain effects. For example, when a picture is scanned, the picture image is digitized. This means that the picture image is converted to a digital or numerical format.

Disk Drive: The device that reads from and writes to a floppy disk or hard disk.

Disk/Diskette: The most common storage device used with microcomputers. A floppy disk is covered by a hard plastic jacket with a metal slide moved to read or write information.

E-Mail: Messages, called electronic mail, that are sent and received over a computer network.

Ethical: Conforming to accepted professional standards of conduct.

Hacker: Computer user who enjoys tinkering with computers as a way to develop new features or who intentionally accesses a single computer, system or a network without permission to do so. They can be there simply to look around or they can be there to destroy.

Hardware: The physical equipment of a computer, such as the screen/monitor, the keyboard, the Central Processing Unit (CPU), and the storage devices.

Hypermedia: A way (for users and programmers) to gather, organize, present, search and customize information from multimedia, databases, and other types of stored information. SuperLink, PowerPoint, and HyperCard are three examples of hypermedia programs.

Hypertext: "Active text" where one word is linked to another into a computer program; a type of indexing system.

HTML: Hypertext markup language. The programming language used to create WWW documents and define the functions to be performed when one clicks on a button, image, or hypertext link embedded in the page.

Internet: A world wide “network of networks” that are connected to each other using IP protocol. The Internet enables file transfers, remote login, electronic mail, news, and other services. It was created more than twenty years ago to allow government and university researchers to communicate, it has grown to link sites around the world and includes many commercial groups and individuals.

ITC: Information Communication Technology. The technology used to handle information and aid communication. Rather than simply IT, ICT shows the importance of communications integrated with computers.

Laser Printer: A printer that produces high quality images using a method similar to that of a photo copying machine.

Load: To enter a program or file into a computer's memory.

Log Out/Log Off: The act of signing off of and disconnecting from a computer system.

Login/Log On: The act of connecting with a computer system and entering your user identification and password.

Modem: A device that permits a computer to transmit and receive data over a telephone line.

Monitor: A display screen designed as an output device for a computer and usually composed of a Cathode Ray Tube.

Mouse: A small hand-held input device with a rotating ball underneath. A computer screen cursor or pointer may be controlled by moving the mouse on a desktop.

Multimedia: The merging of traditional computer creation with other media such as laserdisc, television, CD-ROM, sound and video.

Network: Several stand-alone or independent computers connected together by cables or telephone lines. In a school computer laboratory, a network usually consists of several microcomputers connected together with a shared network server and printer. The local network may also be connected to remote networks such as the Internet.

Open System: A computer or component that uses well defined, widely used industry standards, and can interoperate with those from other manufacturers.

Piracy: The unauthorized duplication and distribution of copyright-protected software.

PowerPoint: Authoring systems that allow for text, graphics, sound, animation, and other effects to be composed for a presentation or for organizing information.

Printer: A mechanical output device that can print text and graphics on paper.

Private Data: Information which is confidential and only ethically available to selected individuals.

Proprietary: A computer or component that does not use well defined, widely used industry standards. They will not interoperate with those from other manufacturers.

Public Data: Information which is available ethically to any user.

Public Domain Program: A non-commercial, copyrighted program free of public restriction. Software placed in the public domain can be copied and used without charge.

Scanner: A peripheral device that converts text or pictures into bit-mapped data that is put into a computer. The digitized images can then be edited.

Software: Program material for computers; instructions to the CPU to tell it what to do with the data it receives. Software programs are usually stored on disks until needed. Sometimes a disk, with its program, is called software.

Telecomputing: 1. The act of sending (or receiving) information to another computer via modem and phone line or local area networks (LAN). The exchange of information can be within a building or around the globe. 2. Sending information electronically across a distance using a computer and modem.

Unethical: Not conforming to accepted professional standards of conduct.

Upload: Sending a disk file from your computer to another computer.

URL: Universal Resource Locator. A system of references to different Internet sites indicating both the site and the type of protocol or application used to reach it: e-mail, ftp, http, gopher, etc.

Virtual Reality: A lifelike world that is created by a computer in which participants can become part of the action.

Word Processing: A process using a computer to input and edit text; a computer application that resembles typewriting but allows instant correction of errors, moving text to different locations, and other editing functions.