

COURSE PROFILE

Introduction to Information Technology in Business (BTT)

Grade 9 or 10
Open

- *for teachers by teachers*

Course Profiles are professional development materials designed to help teachers implement the new Grade 9 secondary school curriculum. These materials were created by writing partnerships of school boards and subject associations. The development of these resources was funded by the Ontario Ministry of Education. This document reflects the views of the developers and not necessarily those of the Ministry. Permission is given to reproduce these materials for any purpose except profit. Teachers are also encouraged to amend, revise, edit, cut, paste, and otherwise adapt this material for educational purposes.

Any references in this document to particular commercial resources, learning materials, equipment, or technology reflect only the opinions of the writers of this sample *Course Profile*, and do not reflect any official endorsement by the Ministry of Education or by the Partnership of School Boards that supported the production of the document

Acknowledgments

Writing Partnership Lead Board: Toronto District School Board

Course Profile Writing Team: Laura Pinto, Toronto District School Board
Avanell Scherer, Hamilton (Writing Team Leader)
Sharon Stephanian, Hamilton-Wentworth District School Board

Internal Reviewers: Cheryl Ende, Hamilton-Wentworth District School Board (**ESL**)
Sheila Harrington, Hamilton-Wentworth District School Board (**Special Education**)

Project Team Coordinator: Madeline Dennis, Toronto District School Board

Unit 3: E-Communication: Presenting With Purpose and Pizzazz

Time: 24 hours

Unit Developer(s): Laura Pinto, Toronto District School Board
Avanell Scherer, Hamilton
Sharon Stephanian, Hamilton-Wentworth District School Board

Development Date: July 1999

Unit Description

Students will complete readiness and remedial exercises and use electronic tools to enhance and/or develop their communication skills, develop an understanding of what e-mail is and how it works, investigate a variety of topics related to electronic communication, and apply their new, electronic-communication skills to create an electronic presentation. Students' overall performance for this unit will be evaluated using the *Electronic Presentation Rubric (Unit 3, Appendix B)*.

Strand(s) & Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Software Applications, Electronic Communication, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations:IMV.01❖, IMV.04, SAV.01-.03❖, ECV.01-.03❖, ERV.01❖, ERV.03, COV.02❖

Specific Expectations:IM1.01, IM1.02-.03❖, IM4.01-.02, SA1.01-.03❖, SA2.01-.03❖, SA3.01-.03❖, EC1.01-.04❖, EC2.01-.04❖, EC3.03-.05, ER1.03-.04❖, ER3.03-.04, CO2.01-.05❖

Activity Titles (Time + Sequence)

Activity 1	Making the Most of an Electronic Presentation	8 hours
Activity 2	Does E-mail Need A Stamp?	4 hours
Activity 3	Investigating Electronic Communication	4 hours
Activity 4	Dazzle Your Audience	8 hours

Prior Knowledge Required

- understanding of co-operative learning, brainstorming, teamwork strategies, and conflict management strategies
- ability to work in groups
- demonstrate basic data entry skills (*if not, teachers should teach and provide remedial exercises*)
- word processing, desktop publishing, and Internet search skills
- ability to create and name files and folders
- ability to update their personal folder or portfolio
- electronic and manual research skills

Unit Planning Notes

- to be effective, parts of this unit require the use of multimedia computers with presentation software
- access to e-mail, the Internet, and presentation software are essential for parts of the unit
- develop a schedule of due dates for each part of the activity since some parts do not require computer use; then accurate dates can be used to book computers well in advance
- if using field trips and guest speakers, book them in advance of beginning the activity

Unit 3: E-Communication: Presenting With Purpose and Pizzazz

- determine what resources will be needed in the classroom; collect the resources prior to beginning the activity
- plan student groupings carefully to ensure a variety of strengths within the groups
- refer to *Unit Planning Notes, Unit 2*

Teaching/Learning Strategies

Note: Strategies specific to a particular activity are given within the activity.

- brainstorming, constructing/creating, researching/sharing, student/teacher consultation, assessing, oral/visual/kinesthetic, interactive, reading/comprehension, responding, writing, reflecting, analysing, discussing, presenting, exploring, critical/creative thinking
- this unit provides opportunities in which students and teachers may link with other subject disciplines to create electronic presentations for other courses and the business community for field trips and guest speakers
- encourage students to exchange telephone numbers and e-mail addresses so they can contact each other during non-school time for clarification
- explain to students that they should never provide personal information when they use the Internet
- check all web sites in advance to ensure they are operable
- create assessment/evaluation tools that address a variety of learning styles
- refer to *Unit 1, Activity 2* for legal and ethical issues such as copyright rules and regulations
- refer to *Teaching/Learning Strategies, Unit 2*

Assessment/Evaluation Techniques

- summative, formative, diagnostic
- self, group, peer, teacher, reflection, checklists, content, process, rubrics, pen and pencil, completion
- assessment and evaluation tools should be constructed to reflect the appropriate categories (*Final Course Evaluation, Course Overview*)

Resources

- resources for a specific activity have been included with the activity
- general resources are listed in the *Course Overview*
- software manuals, books, manufacturers' catalogues and brochures, business community
- presentation software (e.g., *Corel Presentations, Microsoft PowerPoint, Clarisworks, HyperStudio*)

Unit 3, Activity 1: Making the Most of an Electronic Presentation

Time: 480 minutes

Description

Students will investigate what an electronic presentation is and what makes an electronic presentation successful. They will demonstrate their current skill level in the use of the basic functions and features of electronic presentation software. Students will complete personalized *Software Competencies Checklists* identifying the functions and features they can use successfully, based upon completion of an electronic presentation entitled *Top 10 Electronic Presentation Tips*. Remedial exercises will be completed where a student does not have a specific competency.

Strand(s) and Expectations

❖ *expectation(s) evaluated in activity*

Strand(s): Information Management, Software Applications, Electronic Communication, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations: IMV.01❖, IMV.04, SAV.01❖, ECV.01❖, ERV.01❖, COV.02❖

Specific Expectations: IM4.02, SA1.01-.02❖, SA1.03, EC1.01-.04❖, ER1.01-.02, ER1.03-.04❖, CO2.01-.05❖

Activity Instructions

Planning Notes

Note: This activity requires use of a computer with electronic presentation software and Internet access. Book computer time in advance.

Teachers should

- determine the software that students will be using.
- identify the electronic presentation features and functions students will be using (this will impact on the features and functions that will appear on the *Competencies Checklist*).
- select features and functions depending upon the application software to be used by students.
- prepare a *sample electronic presentation* that demonstrates the use of the functions and features the students will be learning, or locate an electronic presentation that can be viewed on the Internet.
- model an effective electronic presentation.
- use any supporting electronic presentation tools that the students will have access to (e.g., LCD display, projection unit, *AVerKey*).
- prepare all handouts prior to beginning activity.
- prepare a summative evaluation that makes provisions for a variety of learning styles.
- decide whether to complete this activity with *Unit 2* where students are developing basic software competencies.

Prior Knowledge Required

- refer to *Prior Knowledge Required*, p. 3-1

Teaching/Learning Strategies

- brainstorming, *Think/Pair/Share*, *Jigsaw/Expert Group*, individual work, *Electronic Presentation Software Competencies Checklist (Unit 3, Appendix A)*

Instructions

1. Introduce the class to the concept of an electronic presentation by showing a *sample electronic presentation*. The *sample electronic presentation* should be prepared using the application software that illustrates the software features and functions that the students will be using. The class may view the presentation together,

Unit 3, Activity 1: Making the Most of an Electronic Presentation

or the teacher may provide each student with a copy of the presentation to view independently, or with a partner, either on disk or through the school's network. Teachers should ensure that the content of the presentation relates to clarifying the electronic presentation features and functions of the software being used.

2. After viewing the *sample electronic presentation*, partners will complete the *Understanding the Electronic Presentation* worksheet below that will address the creation of an electronic presentation. Information from the presentation and the Internet will be used to answer the questions.

Understanding the Electronic Presentation Worksheet

General Instructions:

Working in pairs, use the *sample electronic presentation* and the Internet to answer the following questions:

1. What is an electronic presentation?
2. For what audience is the *sample electronic presentation* intended? How do you know this?
3. What do you notice about the use of colour in the *sample electronic presentation*?
4. What are *backgrounds* and how should they be used?
5. What do you notice about the background in the *sample electronic presentation*?
6. What is important to notice about font size, font colour, and font style?
7. How are bullets used in the *sample electronic presentation*?
8. What do you notice about the amount of text used in the *sample electronic presentation*?
9. How can clip art, animation, video, and audio be used in an electronic presentation?
10. How can electronic presentations be considered interactive?
11. What are *hyperlinks*?
12. What are *slide transitions*?
13. Explain the difference between a title and a sub-title.
14. Does an electronic presentation replace a live presenter? Why or why not?

3. As a class, students will
 - brainstorm the meaning of *electronic presentation*.
 - identify common electronic presentation software.
 - explain the purpose of creating an electronic presentation.
 - brainstorm the characteristics of an effective presentation (this information may be used to create an *Electronic Presentation Rubric, Unit 3, Appendix B*).
4. Each student receives a copy of an *Electronic Presentation Software Competencies Checklist (Unit 3, Appendix A)*. The checklist identifies the basic electronic presentation functions and features that students should be able to use. Note: The appendix sample may require modification based upon features and functions available in the application software to be used by the students.
5. Each student should, where possible, retain file copies stored on disk, that demonstrate his/her electronic presentation competencies. For each competency a student checks off, there must be a work sample to support the skill. One presentation may support multiple functions and features.
6. Discuss the importance of proofreading presentations. Explain that electronic reference tools such as spell check will not identify correctly keyed words that are used inappropriately.
7. Divide the class into groups of three or four students. Provide each student with a hardcopy of the *sample electronic presentation*. Each group will
 - view the *sample electronic presentation* (repeat).
 - use the *Electronic Presentation Software Competencies Checklist (Unit 3, Appendix A)* to label the hardcopy presentation with the features and functions used in preparation.
8. Working in pairs, students will create an electronic presentation entitled *Top 10 Electronic Presentation Tips*. Criteria for the presentation (*below*) and an *Electronic Presentation Rubric (Unit 3, Appendix B)*

Unit 3, Activity 1: Making the Most of an Electronic Presentation

should be given to the students prior to beginning the activity. The purpose of the exercise is to determine the skill areas that students do not have. Students are encouraged to use software *Help* features.

Top 10 Electronic Presentation Tips

1. Know your audience and the purpose of the presentation.
2. Use consistent colours and font styles throughout. Use a consistent background. Use complimentary colours.
3. Font sizes should be between 22 and 36 points for readability.
4. Use a simple and plain font (1 or 2 fonts in total).
5. Use bullets to highlight key essential words.
6. Limit the amount of text on a slide.
7. Use clip art, animation, video, and audio to enhance the message (e.g., clearer, interesting, entertaining).
8. Use the presenter's notes area (if applicable) to plan your presentation.
9. Spell check and proofread the slides.
10. Face the audience and use the slides to support what you have to say.

Presentation Criteria:

- create 11 slides: title slide includes students' names; one slide for each tip
- determine the layout for each slide
- use as many functions and features from the *Electronic Presentation Competencies Checklist* as you can
- save the presentation in an appropriately named location (folder, directory)

9. The file will be stored in an appropriately named location (folder, directory).
10. Upon completion of the presentation, each student will update his/her competencies checklist by checking the functions and features that he/she can use successfully.
11. Students will self-evaluate the presentation using the *Electronic Presentation Rubric (Unit 3, Appendix B)*. This evaluation is for diagnostic purposes.
12. As a pair, complete *The Team in Review (Appendix – Generic Forms)* group process evaluation.
13. Each student will identify those functions and features that he/she cannot use. The teacher should provide specific remedial exercises for the students that focus on the learning of specific functions and features.
14. Teachers may provide independent assistance, conduct whole class sessions, or use self-paced packages to address functions and features that require remediation.
15. Students will update their *Electronic Presentation Software Competencies Checklists* and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 3, Appendix A* as a guide.
16. Students will complete their *Reference Manual of Information Technology Terminology (Unit 1, Appendix A, Activity 1)* using *Unit 3, Appendix A* as a guide.
17. The *Top 10 Electronic Presentation Tips* and the remedial exercises should be reviewed by the teacher to verify the student's competencies. Work should be evaluated for completion and content.

Assessment/Evaluation Techniques

- diagnostic, formative, and summative
- teacher-created summative evaluation
- *Understanding the Electronic Presentation* worksheet (for process and completion)
- *Electronic Presentation Software Competencies Checklist*
- *Data Entry Skills Rubric (Unit 1, Appendix A)*
- *Electronic Presentation Rubric*– self-evaluation (summative)
- *The Team in Review (Appendix-Generic Forms)*

Unit 3, Activity 1: Making the Most of an Electronic Presentation

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in the *Course Overview*
- modify the quantity of slides in the presentation
- modify the functions and features
- label the hardcopy *sample electronic presentation* with the functions and features used
- establish a “buddy system” where students are paired for the purpose of assisting with difficulties
- allow alternative methods of evaluation instead of requiring written responses only
- provide a list of new terms for the *Reference Manual of Information Technology Terminology (Unit 3, Appendix A)*
- provide, where possible, online tutorials prior to beginning the student-created presentation

Resources

- presentation software manuals (e.g., *Microsoft PowerPoint*, *Corel Presentations*, *HyperStudio*)
- teacher-developed remedial exercises
- Bucki, Lisa A. and Judy Fischer. *Learning Computer Applications, Projects and Exercises*. DDC Publishing, New York, 1999, ISBN 1-56234-750-X.
- Brown, Alan L. *Power Pitches: How to Produce Winning Presentations Using Charts, Slides, Video and Multimedia*. Irwin Professional Publishing, 1997, ISBN 0786309725.
- Robbins, Joe. *High-Impact Presentations: A Multimedia Approach*. John Wiley & Sons Publishing, 1997, ISBN 0471157813.

Internet Web Sites

Clemson University – Powerup With PowerPoint: www.hehd.clemson.edu/thrd/860/power.htm
In and Out of the Classroom with Microsoft PowerPoint: www.microsoft.com/education/curric/ppt97/
PowerPoint in the Classroom: www.actden.com/pp/index.htm
PowerPoint Tips: www.humanities.ualberta.ca/TLC/Teaching/powerpoint.htm
Software Application (PowerPoint): <http://cma.cuslm.ca/estouest/office97.en/powerpoint/index.html>
CNET – PowerPoint 97 Tips: www.cnet.com/Content/Features/Howto?Ofc97tips/ss05.html
Introduction to HyperStudio: <http://frank.mtsu.edu/~oit/faculty/HSMACPT1.html>
HyperStudio on the Net: www.ties.k12.mn.us/~motylin/hstudio.html
HyperStudio Workshop: www.ga.k12.pa.us/curtech/hypertut.htm
HyperStudio Tutorials: www.quasar.ualberta.ca/edpy202/tutorial/hstudio/hstudio.htm
HyperStudio Mini-Manual: www.dsd.sk.ca/acquireinfo/ma/hyperminman.html
Clarisworks: http://plato.ess.ntech.edu/foed334/claris_1.htm
Clarisworks: www.utexas.edu/smf/faq/cworks.html
Introduction to Clarisworks: www.sbu.ac.uk/~health/IT_help_docs/CWintro/CWintro.html
Extending your use of Clarisworks: www.sbu.ac.uk/~health/IT_help_docs/CWextend/CWextend.html
Using the Computer for Classroom Management: www.essdack.org/tips/manage.html
An Introduction to Multimedia: <http://cee.indiana.edu/publications/multipres/MM.html>
Electronic Presentations – Carleton University: www.carletonsportsmed.com/electronic_presentation.htm
Student’s Digital Presentations: www.edteched.uottawa.ca/options/Nov_96/studpres.htm
Electronic Presentations in the Corporation – How They are Being Used: www.quasar.ualberta.ca/edmedia/TIES/readings/Frefgri.html
Help Documents: www.humberc.on.ca/~iss/helpdocs/index.html
KidPix Studio: www.sasked.gov.sk.ca/schools/nwcsd/kidpix.html
KidPix Exploration: www.learningspace.org/prog_growth/training/Kidpix/kidPix1.html
How Stuff Works: www.howstuffworks.com
Internet Slideshow
Intranets as Platforms for Information Management: <http://choo.fis.utoronto.ca/fis/courses/lis2102/GO.intranet.slides/sld001.htm>
Intranets: not the Internet: <http://mediavision.cotr.bc.ca/nmco379/intranet/slide1.htm>
E-Business Presentations: www.cybershare.ca/eb_presentations.html
Welcome to Presenting With PowerPoint97: www.tss.uoguelph.ca/lts/pp/intro/sld001.htm
PowerPoint Presentations: www.cam.org/~fishon1/power.html

Appendices

- *Electronic Presentation Software Competencies Checklist*
- *Reference Manual of Information Technology Terminology Checklist*
- *Electronic Presentation Rubric*

Unit 3, Activity 2: Does E-mail Need a Stamp?

Time: 240 minutes

Description

Students will develop an understanding of what e-mail is, how it is transmitted, and how to use it. Students will participate in a paper and pen simulation of how e-mail is transmitted, and will produce a visual that represents their understanding of the process. Students will have an opportunity to create a real e-mail message or simulate an e-mail message that adheres to accepted syntax. E-mail safety will also be addressed.

Strand(s) and Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Electronic Communication, Career Opportunities

Overall Expectations: IMV.01❖, ECV.02-.03❖, COV.02❖

Specific Expectations: IM1.01❖, EC2.01❖, EC2.03-.04❖, CO2.01-.05❖

Activity Instructions

Planning Notes

Teachers should

- determine if the students will have access to actual e-mail and/or e-mail software. If students have access to actual e-mail, teachers may wish to introduce this activity during *Unit 2* so students can practise their e-mail skills by e-mailing their completed work to the teacher. The teacher can e-mail the work, with the evaluation and/or suggestions, back to the students.
- *Part A* and *B* do not require computer usage.
- be aware that there are three parts to this activity. *Part C* requires the use of a word processor.
- obtain and arrange supplies for the simulation and visual display in *Part B*.
- create two areas on the bulletin board to be used as specific mail servers with unique domain names.
- create a quiz with a focus on knowledge and understanding for *Part A* and *Part C*.
- prepare all handouts prior to beginning activity.
- prepare a summative evaluation that makes provisions for a variety of learning styles.

Prior Knowledge Required

- refer to *Prior Knowledge Required, p. 3-1*

Teaching/Learning Strategies

- brainstorming, *Think/Pair/Share*, *Jigsaw/Expert Group*, individual work

Instructions

Part A

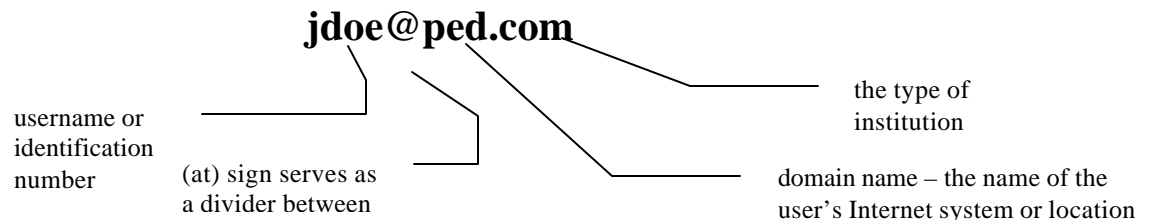
1. Discuss face-to-face communication. Brainstorm what we know about people when we are involved in face-to-face communication. Be sure the list includes what the person looks like, who the person is, where they are from or what they represent (e.g., we can ask for identification), and what the person's voice is like. In addition, discuss that other people can generally see, and possibly hear, someone else's face-to-face conversation.
2. Simulate what happens to face-to-face conversation when you remove the ability to see the other person. Have one student volunteer to cover his/her eyes, then select another student to have a conversation with the blindfolded student. Have the blindfolded student discuss with the class the feelings he/she experienced; e.g., Did he/she know the person? How?
3. Simulate what happens to conversation when sight and voice are removed. Have one student stand in the hall while another student writes a note to the student in the hall asking him/her a question. When the student from the hall reads the note, ask him/her to describe the comfort level felt when responding to the note. Why does he or she feel this way? Does the student know who wrote the note?

Unit 3, Activity 2: Does E-mail Need a Stamp?

4. Explain that e-mail involves communicating with someone that they cannot see or hear. They may believe that they know the person with whom they are communicating, but even if they are sending a message to a friend's address, it is possible that someone else is "opening" their mail.
5. Discuss how e-mail is not completely private and the implications that this will have on the content of their messages.
6. Discuss general concerns such as electronic footprints and e-mail partnering, and the impact these will have on the students' e-mail activity.
7. As a class, generate *Rules of Riding on the E-mail Road* that will be posted in the classroom. Include the following:
 - Never send personal information (e.g., name, address, phone number, school name/location, bank information, credit card number).
 - Tell a teacher or parent if you receive an e-mail that makes you feel uncomfortable.
 - Never agree to meet someone you do not know.
 - Never give out your password to anyone (even a friend).
 - Remember that e-mail is not private and can be read by anyone.
 - Be wary of opening an e-mail from someone you do not know. It may be a virus waiting to attack your computer.
8. Students will complete a teacher-generated quiz based on e-mail safety.

Part B

1. As a class, brainstorm the meaning of the term e-mail. Remind students to update their *Reference Manual of Information Technology Terminology* with the class-generated definition of e-mail.
2. As a class, simulate how information is sent on the Internet. Have a group of ten students stand in a circle with the remaining students standing inside the human circle. Everyone should be approximately an arms-length away from each other. Write a sentence on a strip of paper and cut the strip into several smaller pieces. Give each piece of paper a number based on the order in which the pieces should be reassembled. Select a start person (person A) and an end person (person B) (they should be part of the human circle). Have the students inside the circle pass the pieces of paper from person A to person B, using different routes. Explain that each data packet (smaller piece) knows where its destination is (*IP/Internet address*). Each data packet also has sequence number (*TCP – Transmission Control Protocol*) that tells person B how to reassemble the pieces. When person B has all of the pieces, he/she will arrange the pieces in the correct order. This illustrates how a message is broken into information packets that are sent over the Internet, using a variety of paths, and then reassembled at the destination. Explain that this process takes place in milliseconds.
3. Write the following e-mail related terms on the board:
 - *mail server*
 - *domain name*
 - *e-mail address*
 - *e-mail client program*
 - *TCP/IP – Transmission Control Protocol/Internet Protocol*
4. Discuss what an e-mail address is and how it is used. Discuss how it is similar to a residential address in assisting in the delivery of mail to a specific location.
5. Write a generic e-mail address on the board and discuss the components:



6. Distribute a story, such as the one below, that outlines how e-mail is transmitted over the Internet. Ask for student volunteers to assist in simulating this process for the visual learners. Ensure the concepts of an *e-mail client program/software*, *domain name*, *mail server*, *computer*, and the *Internet* are included in the

Unit 3, Activity 2: Does E-mail Need a Stamp?

simulation. Note: The teacher may wish to combine the two simulations into one by cutting and numbering each of the two messages. They have been approached separately here because of the number of new concepts involved.

Sending E-mail

Beverly would like to send an e-mail message to Raphael. Beverly opens her *e-mail client program/software* and keys her message. When she is finished, she clicks *Send* to send her message from her computer to the mail server of her *Internet Service Provider (ISP)*. Her message will then travel as numerous data packets to the *mail server* of Raphael's ISP, based on the *Domain* name in Raphael's e-mail address. Raphael will open his *e-mail client program/software*, and will send a message from his computer to check his ISP's *mail server* for any messages. Beverly's message is waiting on Raphael's ISP's *mail server*. The message will then travel from Raphael's ISP's *mail server* to his computer where he will read it.

Suggested Simulation Steps

- A. As a class, develop two *Domain names* for your classroom. Label two areas in the classroom with the *Domain names*. Post the names on the bulletin board and label them as mail servers.
- B. Place two desks at the front of the room with a folder on each. Ask for four volunteers; two will sit at the desks where they will create, send, and retrieve e-mail; two will stand by the *mail servers*.
- C. Each student at a desk will select a *Domain* (from the two labelled in the classroom) as their *mail server*. Explain the *purpose of the mail server*.
- D. Each student will open his/her file folder. This is the same as opening the *e-mail client program/software* on a computer. Explain the purpose of the software.
- E. Have each student compose a message. This is the same as keying an *e-mail message*. The specifics of creating an e-mail message are addressed in *Part C* of this activity.
- F. Have each student stick his/her message on the *mail server*. Explain that the message is now broken into data packets and each packet is sent to its destination.
- G. Have each student that is at a *mail server* pass the message to someone in class. The class will continue to pass the message (in no specific order) until it reaches the *mail server* of the recipient.
- H. The students at the desks open their folders (open their *e-mail client program/software*), and will then physically retrieve their message from their own *mail server*.

7. Review the process of e-mail transmission and generate class definitions of the terms on the board (#3 above).
8. As a class, generate a list of *e-mail client programs/software* (e.g., *Pegasus, Outlook, Netscape Mail*).
9. Each student will individually create a visual display that explains how information is sent via e-mail over the Internet.

How Information Is Sent Over the Internet

Visual Display

Marking Scheme		Concepts to include:
Accuracy of concepts	/30	• data packets
Clarity	/5	• information
Creativity	/5	• e-mail address
Overall Impression	/5	• mail server
Total	/45	• e-mail client programs/software
		• TCP/IP

Unit 3, Activity 2: Does E-mail Need a Stamp?

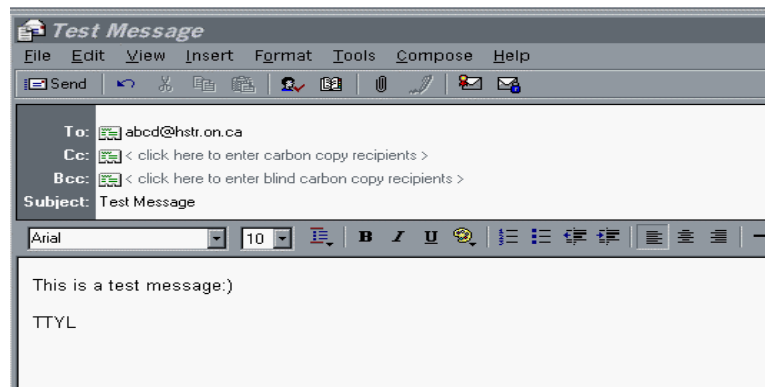
Part C – Creating the E-mail Message

Note: If all of the students in the class have access to e-mail, then the teacher may prefer to have the students use the e-mail functions and features to complete this activity.

1. Review what e-mail is (from *Part A*).
2. Each student should have a blank copy of the *E-mail Reference Sheet* below that will contain summary information on creating and managing e-mail (e.g., what is the purpose of the function, how to use the function), or teachers may wish to have students create the *E-mail Reference Sheet*, from a blank sample, using a word processor.

E-mail Reference Sheet	
<i>Basic Functions:</i>	
Send a message:	_____
Read an incoming message:	_____
Reply to the sender of a message:	_____
Forward your message to someone else:	_____
Print your message:	_____
Delete your message:	_____
Attach a file to your message:	_____
File/Move an incoming message to save it:	_____

3. As a class, brainstorm the purpose of each of the basic e-mail functions. Decide on the agreed upon purposes and the ways to use the functions. Have the students complete their *E-mail Reference Sheet*.
4. Provide each student with a sample of an e-mail message screen.



5. Discuss the various areas of the screen and how they are used. Students should label each area and write a description of the area on the page.
 - To: contains the e-mail address of the recipient(s)
 - Cc: provides a “carbon copy” of the message to someone (the original recipient(s) will see this)
 - Bcc: provides a “blind carbon copy” of the message to someone (the original recipient(s) will not see this)
 - Subject: the topic of the e-mail message
 - Message Area: the area in which the message will be keyed
 - Icons: perform specific functions
6. Provide each student with a copy of the *E-mail Concepts Chart* below that identifies key concepts related to e-mail. Using the *Think/Pair/Share* strategy, have students complete the chart with the appropriate definitions.
7. Have student representatives from each group write their explanation(s) on the board.

Unit 3, Activity 2: Does E-mail Need a Stamp?

E-mail Concepts Chart

<i>Term/Concept</i>	<i>What It Means</i>	<i>Term/Concept</i>	<i>What It Means</i>
message in all capitals	(yelling)	TTYL	(talk to you later)
smilies	(symbols that represent emotions)	BTW	(by the way)
:)	(smile)	signature line	(automatic closing at bottom)
;))	(wink)	inbox	(where incoming mail is placed)
:((frown)	attachment	(a file sent with an e-mail)
outbox	(where mail went to be sent)	sent box	(e-mail messages that have been sent)

8. Discuss the correct responses and have the students update their *Reference Manual of Information Technology Terminology*.
9. Explain what information (e.g., reply address, subject, date) is shown on an incoming message (*Inbox*).
10. Review how e-mail addresses are constructed (*Part B*).
11. Have each student create their own personal e-mail address (use real e-mail addresses if students have access to e-mail) using one of the two domain names for the class (from *Part B*). Each student should share their e-mail address with one or two students of his/her choice (ensure each student has at least one peer's e-mail address).
12. Using a word processor (or e-mail software), key an e-mail message to a peer in class. Remind students to include *To*, *Subject*, and/or *Cc/Bcc*. Messages should be proofread, printed, folded, and labelled with *Inbox* information. Messages should be posted on the bulletin board in the corresponding mail server area.
13. Students should retrieve their message(s) from the mail server and key a response that will be posted.
14. If actual e-mail is available, the teacher may wish to arrange for keypals with whom the students can communicate.
15. If actual e-mail is available, the teacher may wish to have the students submit their work as e-mail attachments to which the teacher will respond.
16. Students will update their *Electronic Presentation Software Competencies Checklists* and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 3, Appendix A* as a guide.
17. Students will complete their *Reference Manual of Information Technology Terminology* (*Unit 1, Appendix A, Activity 1*) using *Unit 3, Appendix A* as a guide.
18. Teachers will develop and administer a summative evaluation (e.g., test) that focusses on knowledge and understanding related to this activity (*Part B* and *Part C*).

Assessment/Evaluation Techniques

- diagnostic, formative, summative
- teacher-created summative evaluation
- *How Information is Sent Over the Internet* – Visual Display
- *E-mail Reference Sheet* – checked for completion and used to update *Reference Manual of Information Technology Terminology*
- *E-mail Concepts Chart* – checked for completion and used to update *Reference Manual of Information Technology Terminology*
- *Reference Manual of Information Technology Terminology* – ongoing
- *Activity 2 Quizzes* – created by the teacher (*Knowledge* and *Understanding* focus)

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in *Course Overview*
- establish flexible timelines
- allow students to work in pairs
- allow alternative methods of evaluation instead of requiring written responses only

Resources

- Bucki, Lisa A. and Judy Fischer. *Learning Computer Applications, Projects and Exercises*. DDC Publishing, New York, 1999, ISBN 1-56234-750-X.

Unit 3, Activity 2: Does E-mail Need a Stamp?

- Mosher, Sue. *The Microsoft Outlook E-mail and Fax Guide*. 29th Street Press, 1999, ISBN 1882419820.
- Angell, David. *Elements of E-mail Style*. Addison Wesley Longman, 1994, ISBN 0201627094.
- Hartman, Diane B. and Karen S. Nantz. *The 3 Rs of E-mail: Risks, Rights, and Responsibilities*. Crisp Publications Incorporated, 1995, ISBN 1560523786.
- Video: *Using E-mail on the Internet*. 1996, ASIN: 6305191220.
- Video: *E-mail for Everyone*. 1997, ASIN:0965733408.
- software manuals (e-mail section)
- teacher demonstration of creating, sending, receiving e-mail messages

Internet Web Sites

Internet 101: E-mail: www2.famvid.com/i101/email.html

University of Victoria: <http://helpdesk.uvic.ca/resource/network/email.html>

Introduction to Electronic Mail: www.ctt.bc.ca/edtech/bit/6.html

Electronic Information Literacy: www.ole.ouc.bc.ca/library/email/Email%20Whatis.html

Sympatico E-mail: www.bc.sympatico.ca/help/Email/HG-email.html

Calgary Public Library: http://public-library.calgary.ab.ca/train/overview/e_mail.htm

How Stuff Works: www.howstuffworks.com

Appendices

- *Reference Manual of Information Technology Terminology Checklist*

Unit 3, Activity 3: Investigating Electronic Communication

Time: 240 minutes

Description

Students will apply previously acquired software skills as they create specific documents for their own small business. Students will investigate the purpose and benefit of using a variety of electronic communication tools, and will make specific selections for use in their business, based upon a rationale.

Strand(s) and Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Software Applications, Electronic Communication, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations: IMV.01❖, IMV.04, SAV.01-.03❖, ECV.02❖, ERV.01❖, COV.02❖

Specific Expectations: IM1.01❖, IM4.02, SA1.01-.02❖, SA1.03, SA2.02-.03❖, EC2.01-.02❖, ER1.03-.04❖, CO2.01-.05❖

Activity Instructions

Planning Notes

Note: This activity will require access to computers; therefore, book computer time in advance. Also, use of the Internet is recommended, but optional if equipment is not available

Teacher should

- provide, if Internet access is not available, a *Treasure Chest* of resources that can be used for the research (resources may include hardcopy information from the Internet, books, magazines, catalogues, CD-ROMs, guest speakers, pictures).
- develop a *Treasure Chest* (or use the ones from *Unit 2, Activity 4*) of samples of business cards, letterheads, advertisements, and business reports that can be used in the classroom by the students.
- provide one *Small Business Project Criteria Sheet* below for each student.
- arrange for samples or pictures of electronic communication tools (this may mean arranging for a tour of the main office, other areas of the school, or a field trip to a local business equipment store).
- select active web sites that demonstrate business use of the Internet and Extranet.
- select a bulletin board and discussion group to show the students.
- prepare all handouts prior to beginning activity.
- prepare a summative evaluation that makes provisions for a variety of learning styles.
- note that this activity is linked to *Activity 4* in which students will create an electronic presentation for their business; therefore, all files and documents should be saved.

Prior Knowledge Required

- refer to *Prior Knowledge Required, p. 3-1*
- ability to work in groups, conflict management strategies
- word processing, desktop publishing skills, and Internet search skills

Teaching/Learning Strategies

- brainstorming, *Think/Pair/Share*, *Jigsaw/Expert Group*, individual work, *Electronic Presentation Software Competencies Checklist (Unit 3, Appendix A)*

Instructions

1. As a class, brainstorm the meaning of *electronic communication tools* (e.g., technological tools that are used to communicate over distance).
2. Generate a list of electronic communication tools commonly used in business that includes fax, e-mail, voice mail, bulletin boards, discussion groups, newsgroups, Internet, Intranet, and Extranet. If possible, provide actual samples so students may see the tools.

Unit 3, Activity 3: Investigating Electronic Communication

3. Divide the class into pairs. Each pair will generate a definition of each term based upon their understanding of the term.
4. As a class, discuss the student-generated definitions.
5. Divide the class into groups of three or four students, and distribute copies of the *Small Business Project Criteria Sheet* below that outlines the purpose and criteria for the project. Note: Teachers will provide students with copies of the marking schemes from *Unit 2, Appendix E (Business Card Group Self-Evaluation, Letterhead Teacher/Group Evaluation)*.
6. Students should review their feedback from *Unit 2 (Business Card and Letterhead)* to identify areas requiring additional attention.
7. Inform students that in *Unit 3, Activity 4*, they will be creating an electronic presentation for their business that will be used to train new employees on the use of specific electronic communication tools. Therefore, all notes and files should be stored and saved.

***Small Business Project
Criteria Sheet***

Project Overview
Your group is going to be opening its own small business. In preparing for the business startup, you are going to create a variety of products.

Items to Create

1. *Business Card* – include business name, contact information, etc.
2. *Business Letterhead* – develop a professional design and include relevant information
3. *Business Advertisement* – advertise your grand opening
4. *Research Report on Electronic Communication Tools*
Your business is investigating which electronic communication tools your company should invest in and why. You must use the Internet, CD-ROMs, and /or print media to research the following electronic communication tools:

fax	newsgroups
e-mail	Internet
voice-mail	Extranet
bulletin boards	Intranet
discussion groups	

- Based upon your research, prepare a chart that outlines

<ul style="list-style-type: none"> • a definition of the tool. • the purpose of using the tool. 	<ul style="list-style-type: none"> • how the tool is used in business. • the advantage(s) of using the tool.
---	--
- Include a paragraph below your chart that discusses which electronic communication tools you will be using in your business (immediately and in three years) and why.
- Your report must include a title page and bibliography that references all information used.

Marking Schemes
Note: Proofread carefully before submitting final documents.

Business Card – Unit #2, Appendix E (Business Card Group Self-Evaluation)

Business Letterhead – Unit #2, Appendix E (Letterhead Teacher/Group Evaluation)

Business Advertisement – Teacher Evaluation

Identifying Information	/ 5
Graphics/Clip art (appearance, placement, suitability)	/ 5
WordArt	/ 3
Fonts (easily read)	/ 2
Colour	/ 2
Overall Appearance	/ 3
Total	/ 20
 <i>Research Report on Electronic Communication Tools – Teacher Evaluation</i>	
Word processing (formatting, appearance, spell check)	/ 10
Chart appearance	/ 2
Chart content (research – 2 marks per item)	/ 72
Application to your business (paragraph)	/ 5
Bibliography and Title Page	/ 4
Total	/ 93

8. Each student will complete *Reflecting on the Team – Self-Evaluation (Appendix – Generic Forms)*.
9. Students will update their Skills and Competencies and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 3, Appendix A* as a guide.

Unit 3, Activity 3: Investigating Electronic Communication

10. Students will complete *their Reference Manual of Information Technology Terminology (Unit 1, Appendix A, Activity 1)* using *Unit 3, Appendix A* as a guide.

Assessment /Evaluation Techniques

- diagnostic, formative, summative
- teacher-created summative evaluation
- *Business Card* – group/self-evaluation
- *Business Letterhead* – teacher/group evaluation
- *Business Advertisement* – teacher evaluation
- *Research Report on Electronic Communication Tools* – teacher evaluation
- *Reflecting on the Team* – self-evaluation

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations in Course Overview*
- allow alternative methods of evaluation instead of requiring written responses only
- provide checklists to help with progress
- allow process marks so students who complete work can be successful despite a weak final product
- form groups to include a variety of strengths
- provide specific web sites so the students do not have to search, or provide hardcopy information
- establish flexible timelines
- provide opportunities to redo work
- provide students with a list of terms for the *Reference Manual of Information Technology Terminology*

Resources

- class *Treasure Chest* of samples of business cards, letters, advertisements, reports
- school Library Resource Centre

Internet Web Sites

Toronto Business Development Centre: www.the-wire.com/sedi/tbdc.html
Canadian Youth Business Foundation On-Line: www.cybf.ca/main.htm
Confederation College – Entrepreneurship On-Line: http://alpha.confederationc.on.ca/courses/net_test/ge017/lecture/Default.html
Small Business Information: http://workplace.sympatico.ca/workplace/small_business.html
Survey of New Small Business Intentions: www.gdsourcing.com/1998Results.htm
Canadian Youth Business Foundation: <http://strategis.ic.gc.ca/SSG/mi05663e.html>
Youth Resource Network of Canada: www.youth.gc.ca/selfemp_e.shtml
Self-Employment Steps: www.gov.nf.ca/nlwin/SE/2ses.htm
Starting a Small Business in Ontario: www.cbsc.org/ontario/starting/main.html
Young Entrepreneurs Association: www.YEA.ca
Mazemaster: www.mazemaster.on.ca/eng/mod3/
Venturing Out: www.hrdc-drhc.gc.ca/hrdc/hrif/hrif/leis/career/lm399_e.html
Catching the Wave: www.hrdc-drhc.gc.ca/career-carriere/ctw/index.shtml
Intranets as Platforms for Information Management: <http://choo.fis.utoronto.fis/courses/lis2102/GO.intranet.slides/sld001.htm>
Intranets: not the Internet: <http://mediavision.cotr.bc.ca/nmco379/intranet/slide1.htm>
Intranets: A Wise Choice for Schools: www.pwc.k12.nf.ca/~brickett/e6620/intranets.html
Intranet Technologies, Extranets the New Internet Solution: <http://home.intranet.ca/newsletter3.html>
Networking for Internet or an Intranet: http://pmax.dymaxion.ns.ca/iisadmin/htmldocs/04_iis.htm
Intranet FAQs: www.intrack.com/intranet/ifaq.shtml
Intranet Reference Site: www.intrack.com/intranet/index.shtml
What is an Intranet: <http://learn.senecac.on.ca/~aclam2/hwd101/intranet.htm>
The Internet and Intranets: <http://strategis.ic.gc.ca/SSG/mi06361e.html>
What is a Bulletin Board System: www.dsUPER.net/~techno/general.html
How Stuff Works: <http://www.howstuffworks.com>

Appendices

- *Electronic Presentation Software Competencies Checklist*
- *Reference Manual of Information Technology Terminology Checklist*

Unit 3, Activity 4: Dazzle Your Audience

Time: 480 minutes

Description

Students will apply critical and creative thinking skills to critique an electronic presentation for effectiveness and pizzazz. Applying the presentation skills and competencies they developed in *Unit 3, Activity 1*, students will create an electronic presentation that will be used by their small business (*Unit 3, Activity 3*) for training employees. The presentation will focus on the use of electronic communication tools.

Strand(s) and Expectations

❖ expectation(s) evaluated in unit

Strand(s): Information Management, Software Applications, Electronic Communication, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations: IMV.01❖, IMV.04, SAV.01, SAV.02-SAV.03❖, ECV.01-.02❖, ECV.03, ERV.01-.03, COV.02❖

Specific Expectations: IM1.01-IM1.02, IM1.03❖, IM4.01-.02, SA1.01❖, SA1.02-.03, SA2.01-.02, SA2.03❖, SA3.01, SA3.02-.03❖, EC1.01-.03❖, EC2.01❖, EC2.04❖, EC3.03-.05❖, ER1.03-.04❖, ER2.04, ER3.03-.04❖, CO2.01-.05❖

Activity Instructions

Planning Notes

Note: This activity requires the use of computers capable of using presentation software.

Teachers should

- ensure that there is one computer for each group.
- plan student groupings carefully to ensure a variety of strengths within the groups.
- prepare all worksheets and handouts in advance.
- prepare summative evaluation that makes provisions for a variety of learning styles.
- schedule time for group/teacher consultations.
- prepare a process marks sheet that includes due dates so that students have specific deadlines for smaller parts of the project; e.g., selection of topic, exploring alternatives, collecting data, etc.
- be aware that the entire activity is a group one; therefore, students will receive a group mark. An individual evaluation sheet is included, but teachers may want to add additional individual mark components to the activity.
- prepare a marking scheme for the final presentation (summative).
- ensure that students have all their notes and files from *Unit 3, Activity 3*.
- note that *Part A* is designed to allow assessment and evaluation of Thinking/Inquiry Skills; refer to *Achievement Chart, The Ontario Curriculum, Grades 9 and 10, 1999, pp. 24-25* and the *Electronic Presentation Rubric, Unit 3, Appendix B*.
- pretest students electronic presentation skills and competencies to determine whether additional teaching of presentation software may be required.

Prior Knowledge Required

- refer to *Prior Knowledge Required, p. 3-1*
- skills and competencies developed in *Unit 3, Activities 1 and 3*
- ability to work in groups, conflict management strategies
- word processing, desktop publishing, Internet search, and research skills (electronic and manual)

Unit 3, Activity 4: Dazzle Your Audience

Teaching/Learning Strategies

- brainstorming, *Think/Pair/Share*, *Jigsaw/Expert Group*, individual work, *Electronic Presentation Software Competencies Checklist (Unit 3, Appendix A)*

Instructions

Part A

- In groups of three, students will browse through one of the following electronic sources, making sure to check any sections that provide sound and animation. Each group should be assigned a different CD or web site so there is no overlap.

OESS licenced CD-ROMs

Career Cruising
Canadian & World Encyclopedia
Light and Sound
Biomes and Natural Cycles
Digital Field Trip to the Rainforest
Digital Field Trip the Wetlands
Eyewitness Encyclopedia of Nature
Eyewitness Encyclopedia of Science

Web sites

<http://on.cx.bridges.com>
www.edu.gov.on.ca/eng/career
www.muchmusic.com
www.fallsview.com
www.ctv.ca
www.learnthenet.com/english/index.html

- Provide each student with a copy of the *Presentation Critique Sheet* below that will be used to critique CD-ROMs and web sites. Students are to complete this sheet once they have completed viewing the CD-ROM or web site.

PRESENTATION CRITIQUE SHEET

After browsing through the CD-ROM or web site your group was assigned, answer the following questions. All group members must agree to the response recorded.

- What is the purpose?
- Who is the target audience?
- In what areas was colour used? Was it used effectively? Explain.
- What was the proportion of text used compared to visuals? Should there have been more or less text? Visuals? Why?
- What types of visuals were used?

<input type="checkbox"/> Clip art	<input type="checkbox"/> Pictures
<input type="checkbox"/> WordArt	<input type="checkbox"/> Charts/Tables
<input type="checkbox"/> Graphics	<input type="checkbox"/> Other (state what they were)
- How did the above enhance the presentation?
- Describe the fonts used? Type? Size? Number Used?
- Did the creators use bullets or symbols? If so, how many and for what purpose?
- Was animation, video, or audio used? For what purpose? Was it effective? Explain?
- Was there unnecessary information given? What was it? Did it detract from the presentation?
- If you browsed a web site, were hypertext links used? If yes, explain the purpose and give an example.
- Write a brief critique of the CD-ROM or web site you viewed, stating why you liked or disliked the site, your overall impression, and list ways you think it could be improved to really dazzle the audience.

- Each group is to share its responses with the class.
- As a class, brainstorm to come up with a list of features (e.g., sound, animation, videos, graphics, layout) that can be used in a presentation to dazzle an audience. Post this list in the classroom.
- Save all of the notes and files from *Part A* in order to complete *Part B*.

Part B

- Students will work within the same groups as they did in *Unit 3, Activity 3*.
- Provide students with copies of all handouts prior to the beginning of the activity.

Unit 3, Activity 4: Dazzle Your Audience

3. Retrieve all notes and files from *Unit 3, Activity 3* and *Part A* of *Activity 4*. This information will be used to assist in the following steps.

Student Instructions

4. Topics are to be chosen from the following list. Each group will present a different topic ensuring that there is no duplication.

Presentation Topics

- ➔ **E-mail** (security, legal, and ethical issues as a user)
- ➔ **Rules for Creating Voice Mail**
- ➔ **Sending Faxes** (issues to keep in mind)
- ➔ **E-Commerce: The Future of Our Company** (how it is being used in business; what it will do for us)
- ➔ **Company Bulletin Boards** (how and why these can be used by employees)
- ➔ **Online Sense of Community** (advantages and disadvantages of joining discussion groups)
- ➔ **Guide to Ensuring Repeat Business from Customers**
- ➔ **Holding Our Customer's Hand** (online services provided for customers)
- ➔ **Intranet vs. the Internet** (in what ways will our company use them)
- ➔ **Our Company's Web site** (what should be on it; what links may be needed; who will design and maintain it)

5. Use the problem-solving model below to create an electronic presentation that will be used to train new employees.

PROBLEM-SOLVING MODEL

1. **Identify the Problem** (select topic; state and define the problem; e.g., determine what the topic requires)
2. **Explore Alternatives** (e.g., brainstorm a list of questions about the problem; assess questions; determine which ones you should pursue further and which ones you should delete)
3. **Collect Information** (what sources of information will you use; develop a procedure for recording data gathered; record sources such as the name of the author, publishing company, web site address, people contacted)
4. **Organize the Information** (group information according to alternatives explored; does the information help us decide which alternatives are the best; do we need to collect more information; are we ready to solve the problem)
5. **Present the Solution** (develop script; chose type of presentation software; decide on type and size of fonts, background colour, visuals, sound, animation, etc; create presentation; present to classmates)
6. **Evaluate the Solution** (what was good; what needed improvement; how; what would we do differently next time)

6. Use the checklist below to monitor progress and to ensure that nothing has been forgotten.

PRESENTATION CHECKLIST

- | | |
|--|---|
| What is the title of our presentation? | Choose background colour and format. |
| Who is our audience? | How will we use bullets and symbols? |
| What is our purpose? | Will we use (and where) clip art? WordArt? |
| What presentation software will we use? | Are graphics and pictures appropriate? Where? |
| Who is responsible for what? | Is there a place for animation or video? Where? |
| Create text to be used—develop a script. | Will we use sound? Where? |
| Do we need presentation notes? | How do we move from one slide to another? |
| Choose font type and size. | Will our presentation dazzle our audience? |

7. After you have chosen your topic, explored the alternatives, and collected and organized the necessary information, use a script sheet similar to the one below to map out your presentation.
8. Analyse your presentation using the *Top 10 Electronic Presentation Tips (Unit 3, Activity 1)*, *Presentation Critique Sheet (Unit 3, Activity 4, Part A)*, and the *Analytical Rating Scale* below to analyse the work your group has completed. In the space provided, list the suggestions you have for improvement.
9. Arrange a group/teacher conference to receive revision comments and suggestions from the teacher that can be added to the rating scale.

Unit 3, Activity 4: Dazzle Your Audience

MAPPING OUT OUR PRESENTATION

<p><i>Slide 1</i> (e.g.)</p> <ul style="list-style-type: none"> • Background blue • 22 pt. font/Impact, left aligned • Use blinds to unveil group members' names • Group picture—bottom right-hand corner 	<p><i>Script</i></p> <ul style="list-style-type: none"> • Presentation Title • Group members' names
<p><i>Slide 2</i></p>	<p><i>Script</i></p>
<p><i>Slide 3</i></p>	<p><i>Script</i></p>

ANALYTICAL RATING SCALE

Group Members:

As a group, critically analyse the work you have done. For each item listed, circle the number you think reflects your work. Add up the circled numbers for your group total.

	low			middle			high			
ideas	1	2	3	4	5	6	7	8	9	10
organization	1	2	3	4	5	6	7	8	9	10
word choice	1	2	3	4	5	6	7	8	9	10
visuals	1	2	3	4	5	6	7	8	9	10
colour	1	2	3	4	5	6	7	8	9	10
creativity	1	2	3	4	5	6	7	8	9	10
grammar/punctuation/spelling	1	2	3	4	5	6	7	8	9	10
content complete	1	2	3	4	5	6	7	8	9	10
content accurate	1	2	3	4	5	6	7	8	9	10
overall appearance/dazzling	1	2	3	4	5	6	7	8	9	10

TOTAL _____/100

Suggestions as to how we think we can improve our presentation:

Teacher's Suggestions:

10. Make revisions, then create your electronic presentation using the appropriate software. Be sure to proofread carefully because errors detract from the presentation.
11. Present your topic, electronically, to the class.
12. Complete the *Individual Evaluation Scale for Group Work* below. Submit the completed sheet to your teacher.
13. Students will update their *Electronic Presentation Software Competencies Checklist* and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 3, Appendix A* as a guide.
14. Students will complete their *Reference Manual of Information Technology Terminology* (*Unit 1, Appendix A, Activity 1*) using *Unit 3, Appendix A* as a guide.

Unit 3, Activity 4: Dazzle Your Audience

INDIVIDUAL EVALUATION SCALE FOR GROUP WORK

Assign yourself a mark, according to the scale, for each statement below.

Very Often	4
Often	3
Sometimes	2
Seldom	1

My Mark

1. Stayed on task
2. Listened politely and attentively.
3. Contributed ideas.
4. Encouraged others.
5. Considered the ideas of others.
6. Helped further develop ideas contributed by others.
7. Helped group members meet deadlines.
8. Did my share of the work.
9. Helped group members reach consensus.
10. Participated in the presentation to the class.

TOTAL MARK _____/40

Assessment/Evaluation Techniques

- diagnostic, formative, summative
- *Presentation Critique Sheet*
- *Problem-Solving Model*
- *Presentation Checklist*
- *Top Ten Electronic Presentation Tips (Unit 3, Activity 1)*
- *Presentation Critique Sheet*
- *Analytical Rating Scale*
- *Individual Evaluation Scale for Group Work*
- *Electronic Presentation Rubric*
- Teacher-generated final presentation evaluation (summative)

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in *Course Overview*
- group students to include a student with strong language skills and one with good computer skills
- allow alternative methods of evaluation instead of requiring written responses only
- develop a terminology/definition checklist of presentation terms
- provide checklists to help with progress
- use process marks so students who complete work can be successful despite a weak final product
- form groups to include a variety of strengths
- provide specific web sites so that the students do not have to search, or provide hardcopy information
- establish flexible timelines
- provide opportunities to redo work

Resources

- Bly, Robert W. *The Encyclopedia of Business Letters, Fax Memos, and E-mail*. Career Press, 1998, ISBN 1564143759.
- Bucki, Lisa A. and Judy Fischer. *Learning Computer Applications, Projects and Exercises*. DDC Publishing, Monarch Books of Canada, New York, 1999, ISBN 1-56234-750-X.
- Business Week Magazine, "What Every CEO Needs to Know About Electronic Business: A Survival Guide." March 22, 1999.
- *E-Commerce Security Strategies: Protecting the Enterprise*. Computer Technology Research Corporation, 1998, ISBN 1566070570.
- Cameron, Debra. *Electronic Commerce: The New Business Platform for the Internet*. Computer Technology Research Corporation, 1997, ISBN 1566079853.
- Fleming, L., et. al. *Communicating For Business*. Nelson Canada, 1990, ISBN 17-603551-6.
- Ghosh, Anup K. *E-Commerce Security: Weak Links, Best Defenses*. John Wiley & Sons Canada, Limited, 1998, ISBN 0471192236.
- Hallett, Anthony and Diane Hallet. *Encyclopedia of Entrepreneurs*. John Wiley & Sons Canada, Limited, 1997, ISBN 0471175366.

Unit 3, Activity 4: Dazzle Your Audience

- Hurley, Brian & Peter Birkwook. *Doing Big Business on the Internet*. Self-Counsel Press, 1997.
- *Internet In An Hour: Business Communication and E-mail*. DDC Publishing, Monarch Books of Canada, ISBN 1562436767.
- McLaren, Bruce J. and Constance H. McLaren. *E-commerce: Business On The Internet*. Nelson Canada Limited, 1999, ISBN 0538689188.
- Morris, Rupert. *The Right Way to Write: How to Write Effective Business Letters, Reports, Memos, and E-mail*. Piatkus Books, 1999, ISBN 0749918780.
- Overly, Michael R. *E-policy: How to Develop Computer, E-mail, and Internet Guidelines to Protect Your Company and Its Assets*. Amacom, 1998, ISBN 0814479960.
- Schelling, Jeffery M. *Cyberlaw: The Computer User's Legal Guide*. Self-Counsel Press, 1997.
- Schneier, Bruce. *E-Mail Security: How to Keep Your Electronic Messages Private*. John Wiley & Sons Canada, Limited, 1995, ISBN 047105318X.
- Shaw, Russell. *E-Commerce for Dummies*. IDG Books Worldwide, 1997, ISBN 0764502093.
- Siebel, Thomas M. and Pat House. *Cyber Rules: Strategies for Excelling at E-business*. Doubleday & Company Incorporated, 1999, ISBN 0385494122
- **Magazines:** *Home Business, e-Business Advisor, Entrepreneur, Home Office Computing*
- **OESS licenced CD-ROMs:** Career Cruising, Canadian & World Encyclopedia, Light and Sound, Biomes and Natural Cycles, Digital Field Trip to the Rainforest, Digital Field Trip the Wetlands, Eyewitness Encyclopedia of Nature, Eyewitness Encyclopedia of Science

Internet Web Sites

Career Exploration and Planning: <http://on.cx.bridges.com>
Career Gateway, Ontario Government: www.edu.gov.on.ca/eng/career
Youth Jobs, Ontario Government: www.youthjobs.gov.on.ca
MuchMusic: www.muchmusic.com
Sheraton Fallsview Hotel, Niagara Falls, Ontario: www.fallsview.com
CTV Television: www.ctv.ca
Industry Canada, Using Electronic Commerce: <http://e-com.ic.gc.ca/using/en/101/html>
Industry Canada, Doing Business on the Internet: http://strategis.ic.gc.ca/sc_indps/sectors/engdoc/gain_hpg.html
Industry Canada, Task Force on Electronic Commerce: <http://e-com.ic.gc.ca/english>
Revenue Canada, Electronic Commerce: www.rc.gc.ca
What is E-commerce: www.chem-eng.utoronto.ca/~soheila/overview.html
E-Commerce or E-Business: <http://strategis.ic.gc.ca/SSG/mi06339e.html>
Contact! The Canadian Management Network: http://strategis.ic.gc.ca/sc_mangb/contact/resource1/engdoc/99d.html
IBM e-business: www.can.ibm.com/ebusiness
IBM sample Internet site: <http://yoursite.phatcatstudios.com/divots/dev1/pes.nsf/all/mainframe>
E-business Presentations: www.cybershare.ca/eb_presentations.html
Privacy Protection Principles for Voice Mail Systems: www.ipc.on.ca/web_site/eng/matters/sum_pap/papers/vmail-e.htm
Voice Mail Etiquette: www.unbc.ca/cts/old_we/telecom/eti_q.htm
Ontario's Access and Privacy Acts: www.ipc.on.ca/web_site/eng/acts/a-page.htm
Department of Justice, Privacy Provisions: http://canada.justice.gc.ca/News/Communiques/1998/attback2_en.html
Department of Justice, Adjusting the Legal Framework for Electronic Commerce: http://canada.justice.gc.ca/News/Communiques/1998/attback1_en.html
Department of Justice, Personal Privacy Protected: http://canada.justice.gc.ca/News/Communiques/1998/att_en.html
Financial Services in an Electronic Age – Legal Issues: www.gahtan.com/alan/articles/ibank-b.htm
Legal Group for the Internet: <http://catalaw.com/logic/index.shtml>
Cyberlaw: www.gahtan.com/cyberlaw/Electronic_Commerce/
Information Technology Law Page: www.smithlyons.ca/it/page3.htm
Small Business Electronic Commerce Issues: <http://strategis.ic.gc.ca/SSG/mi06278e.html>
On the Road of Electronic Commerce: <http://strategis.ic.gc.ca/SSG/mi06357e.html>
Industry Canada, Electronic Commerce: How Fast, How Soon: <http://strategis.ic.gc.ca/SSG/mi06348e.html>
How Private is e-mail: www.learnthenet.com/english/html/75email.htm
Security Issues: www.srhip.on.ca/ResourceCentre/Training/SecurityIssues.html
Watch What You Say: <http://offshore.efc.ca/pages/media/spectator.15may97a.html>
E-mail Security: www1.bc.sympatico.ca/help/Learn/FAQ/emailsec.html
Encryption: www.cypost.com/encr_basic.html
How Stuff Works: <http://www.howstuffworks.com>

Appendices

- *Electronic Presentation Electronic Presentation Software Competencies Checklist*
- *Reference Manual of Information Technology Terminology Checklist*

Unit 3, Appendix A

Electronic Presentation Software Competencies Checklist

- | | |
|--|--|
| <input type="checkbox"/> Add Slide | <input type="checkbox"/> Print |
| <input type="checkbox"/> Animate – objects | <input type="checkbox"/> Save |
| <input type="checkbox"/> Animate – text | <input type="checkbox"/> Save As |
| <input type="checkbox"/> Audio | <input type="checkbox"/> Slide Transitions |
| <input type="checkbox"/> Bullets | <input type="checkbox"/> Speaker’s Notes |
| <input type="checkbox"/> Clip Art | <input type="checkbox"/> Spell Check |
| <input type="checkbox"/> Close | <input type="checkbox"/> Text Formatting – bold |
| <input type="checkbox"/> Copy | <input type="checkbox"/> Text Formatting – italic |
| <input type="checkbox"/> Cut | <input type="checkbox"/> Text Formatting – underline |
| <input type="checkbox"/> Delete Slide | <input type="checkbox"/> Video |
| <input type="checkbox"/> Drawing | <input type="checkbox"/> _____ |
| <input type="checkbox"/> Font Colour | <input type="checkbox"/> _____ |
| <input type="checkbox"/> Font Size | <input type="checkbox"/> _____ |
| <input type="checkbox"/> Font Style | |
| <input type="checkbox"/> Hypertext Links | |
| <input type="checkbox"/> Indent | |
| <input type="checkbox"/> New | |
| <input type="checkbox"/> Open | |
| <input type="checkbox"/> Paste | |

Troubleshooting Features

- Customized Help Features
- Help Menu/Wizard
- Print Preview
- Undo/Redo

Unit 3, Information Technology Terminology Checklist

Each of the following terms is to be added to your *Reference Manual of Information Technology Terminology*. Check off the terms as you input them.

Electronic Presentations

- electronic presentation
- backgrounds
- hyperlinks
- slide transitions

E-mail

- mail server
- domain name
- e-mail address
- e-mail client program
- TCP/IP
- data packets

Electronic Communication Tools

- electronic communication tools
- fax
- voice-mail
- bulletin board
- discussion group
- newsgroup
- Extranet
- Intranet
- Internet

Unit 3, Appendix B

Electronic Presentation Rubric

Category	Level 1	Level 2	Level 3	Level 4
Communication <ul style="list-style-type: none"> communicates for different audiences and purpose communicates information and ideas uses language, symbols, and visuals 	<ul style="list-style-type: none"> communicates with a limited sense of audience and purpose communicates information and ideas with limited clarity uses language, symbols, and visuals with limited accuracy and effectiveness 	<ul style="list-style-type: none"> communicates with some sense of audience and purpose communicates information and ideas with some clarity uses language, symbols, and visuals with some accuracy and effectiveness 	<ul style="list-style-type: none"> communicates with a clear sense of audience and purpose communicates information and ideas with considerable clarity uses language, symbols, and visuals with considerable accuracy and effectiveness 	<ul style="list-style-type: none"> communicates with a strong sense of audience and purpose communicates information and ideas with high degree of clarity uses language, symbols, and visuals with high degree of accuracy and effectiveness
Product uses <ul style="list-style-type: none"> font animation colour text objects (clip art, drawings, audio, video, charts) 	<ul style="list-style-type: none"> limited readability based upon colour, size, and style limited enhancement to message limited impact and clarity limited readability based on quantity limited enhancement to message 	<ul style="list-style-type: none"> some readability based upon colour, size, and style some enhancement to message some impact and clarity some readability based on quantity some enhancement to message 	<ul style="list-style-type: none"> considerable readability based upon colour, size, and style considerable enhancement to message considerable impact and clarity considerable readability based on quantity considerable enhancement to message 	<ul style="list-style-type: none"> high degree of readability based upon colour, size, and style strong enhancement to message strong impact and clarity high degree of readability based on quantity strong enhancement to message
Content demonstrates <ul style="list-style-type: none"> depth of coverage quality of information 	<ul style="list-style-type: none"> limited coverage of topic limited quality of information 	<ul style="list-style-type: none"> moderate coverage of topic moderate quality of information 	<ul style="list-style-type: none"> considerable coverage of topic considerable quality of information 	<ul style="list-style-type: none"> complete coverage of topic high quality of information
Thinking & Inquiry demonstrates <ul style="list-style-type: none"> critical and creative thinking 	<ul style="list-style-type: none"> uses critical and creative thinking skills with limited effectiveness 	<ul style="list-style-type: none"> uses critical and creative thinking skills with moderate effectiveness 	<ul style="list-style-type: none"> uses critical and creative thinking skills with considerable effectiveness 	<ul style="list-style-type: none"> uses critical and creative thinking skills with high degree of effectiveness
Use this rubric in conjunction with an <i>Oral Presentation Rubric (Appendix - Generic Forms)</i> since this rubric focusses on the use of an electronic presentation tool.				

Unit 4: Gathering and Assessing Information Using Electronic Media

Time: 20 hours

Unit Developer(s): Laura Pinto, Toronto District School Board
Avanell Scherer, Hamilton
Sharon Stephanian, Hamilton-Wentworth District School Board

Development Date: July 1999

Unit Description

Students will enhance and/or develop their ability to gather information from a variety of electronic sources; develop evaluation criteria to evaluate the electronic information gathered with respect to validity, bias, usefulness, confidentiality, and the degree to which it is up to date; develop an understanding of Internet connections; investigate dangers that are associated with transmission of information; apply research and critical thinking skills in researching the business and communication etiquette of a designated culture; and apply their research findings to a variety of formats to be shared with classmates. Students' overall performance of this unit will be evaluated using the *Unit 4 Assessment Rubric*.

Strand(s) & Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Software Applications, Electronic Communication, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations: IMV.01-.03❖, SAV.03❖, ECV.02❖, ERV.01❖, ERV.02, COV.02❖

Specific Expectations: IM1.01-.03❖, IM3.03-.04❖, IM4.04-.05❖, SA1.02, SA3.01-.03❖, EC2.02, EC2.04❖, EC3.01-.02, ER1.01-.05❖, ER2.01-.04❖, ER3.02❖, ER3.03-.05, CO2.01-.05❖

Activity Titles (Time + Sequence)

Activity 1	Techniques for Powerful Research Using Internet Tools	6 hours
Activity 2	<i>Caveat Lector</i> a.k.a. Let the Reader Beware	6 hours
Activity 3	Internet Connections and Computer Viruses	2 hours
Activity 4	Shrinking the World: Cultures and Customs on the WWW	6 hours

Prior Knowledge Required

- understanding of *Jigsaw/Expert Group*, *Think/Pair/Square*, and *Graffiti* co-operative learning strategies, brainstorming, teamwork, and conflict management strategies (*Course Overview*)
- students have basic data entry (*Unit 1, Activity 1, Part F*), word processing (*Unit 2, Activity 1, Part A*), desktop publishing (*Unit 2, Activity 3*), and Internet search engine skills (*Unit 2, Activity 2*) (*If students are unable to demonstrate sufficient skills in these areas, teach the required skills first.*)

Unit Planning Notes

- prepare or modify assessment/evaluation tools so they can be given to students prior to beginning activities
- create assessment/evaluation that addresses a variety of learning styles
- review and prepare all handouts and materials prior to beginning activities
- where necessary, establish research topics in advance of activities

Unit 4: Gathering and Assessing Information Using Electronic Media

- speak with teachers from other subject disciplines to see if some research activities can be performed in conjunction with other courses as cross-curricular projects
- ensure access is available to computers that have CD-ROM drives and Internet connections
- obtain copies of CD-ROMs appropriate for electronic research
- have resources, hardware/equipment, supplies, etc. available before beginning activities
- decide on the best way to form groups/partners for each specific activity
- check all web sites in advance to ensure that they are still in operation
- obtain enough copies of *Internet Acceptable Use Agreements* so there is one per student, and ensure that they are all signed and returned before allowing students to use the Internet
- ensure students understand group presentation skills, brainstorming, co-operative learning (*Course Overview*), and conflict management strategies (*Course Overview*)

Teaching/Learning Strategies

Note: Strategies specific to a particular activity are provided within the activity.

- brainstorming, co-operative learning, constructing/creating, researching/sharing, student/teacher consultation, assessing, oral/visual/kinaesthetic, interactive, reading/comprehension, responding, writing, reflecting, discussing, presenting, exploring, analysing, thinking/inquiring
- teachers should keep track of assignments on an ongoing basis so no student falls too far behind
- encourage students to share telephone numbers and e-mail addresses so they can contact each other during non-school time for clarification
- create assessment/evaluation tools that address a variety of learning styles
- provide exemplars of finished products to ensure students understand what is expected of them
- use the overhead to highlight difficult concepts or vocabulary
- refer to *Special Education* and *ESL Accommodations* in *Course Overview* to assist with modification of activities
- activities in this unit may be linked to English (terminology and meanings, communication tools, research, letter and report writing), and geography (studying other nations) since written communication and research skills are valuable in any course
- during group activities, the teacher should act as a facilitator, moving from group to group
- refer to *Unit 1, Activity 2* for legal and ethical issues such as copyright rules and regulations

Assessment/Evaluation Techniques

- summative, formative, diagnostic
- self, group, peer, teacher, reflection, checklists, content, process, rubrics, pen and pencil, homework completion
- specific assessment/evaluation techniques are listed in detail with each activity

Resources

- resources for a specific activity have been listed with that activity
- refer to the *Resources* section of the *Course Overview* for additional resources

Unit 4, Activity 1: Techniques for Powerful Research Using Internet Tools

Time: 360 minutes

Description

The students will devise a research strategy to be used as they explore different ways to use information technology in order to research a topic. Students will explore several different types of electronic documents, define them, identify advantages and disadvantages of each, and generate a list of examples. Students will then use advanced query options to perform searches on the Internet, and to evaluate the effectiveness of different search engines and query options.

Strand(s) & Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Software Applications, Electronic Communication, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations: IMV.01 ❖, ERV.01 ❖, COV.02 ❖

Specific Expectations: IM1.01 ❖, IM1.03, SA1.02, SA3.03, EC2.02, EC2.04 ❖, ER1.01-04 ❖, ER2.03-.04, ER3.04, CO2.01-05 ❖

Activity Instructions

Planning Notes

Teachers should

- organize groups for this activity ahead of time, establishing how many will exist in total.
- prepare or modify assessment/evaluation tools so they can be given to students prior to beginning activities.
- select at least four traditional search engines and one metasearch engine for the class to use. A list of URLs appears in the *Resources* section of this unit and in the *Course Overview*.
- select research topics from the list provided or create an original list.
- ensure students have access to computer workstations that have Internet access.
- prepare all handouts prior to beginning activity.
- prepare a summative evaluation that makes provisions for a variety of learning styles.

Prior Knowledge Required

- refer to *Prior Knowledge Required, p. 4-1*
- knowledge of brainstorming, *Think/Pair/Share*, *Graffiti*, the ability to work in small groups, conflict management strategies, and an understanding of group presentation skills (*Course Overview*) are essential
- basic Internet search skills (*Unit 2, Activity 1*)

Teaching/Learning Strategies

- brainstorming, small group work, *Think/Pair/Share*, *Graffiti*, *Skills and Competencies Checklist (Unit 4, Appendix A)*

Instructions

Part A

1. On a blank sheet of paper, have students answer the following questions about electronic research:
 - How is an Internet search performed?
 - Name three types of electronic documents.
 - How can CD-ROMs and databases be used to research a topic?
 - What is a newsgroup?
 - Compare the ways the Internet and Intranet can be used for research.

Note: The teacher will collect this for diagnostic assessment and record the information for classroom display.

2. As a class, discuss the topic of electronic research. Brainstorm a list of things a researcher should consider before embarking on a project. Record the information on chart paper or the chalkboard, and create a class research strategy or use the strategy below.

Unit 4, Activity 1: Techniques for Powerful Research Using Internet Tools

Research Strategy

- 1) Identify a research topic.
 - 2) Discuss topic with peers, teachers, and teacher-librarians to get ideas.
 - 3) Write the topic as a question.
 - 4) Create a list of keywords for your topic. Use a thesaurus to get more ideas.
 - 5) Identify sources you will use for information (e.g., Internet, CD-ROMs, Reference Sections).
 - 6) Test keywords using sources.
 - 7) Refine keywords or add new keywords.
 - 8) Begin researching.
3. Brainstorm a list of the types of resources that a researcher could use to obtain information. Divide these resources into two categories: electronic and non-electronic. For each resource, have the class specify where they might find that resource. Distribute the *Types of Electronic Documents Worksheet* below, and have the students generate advantages and disadvantages of each using the *Think/Pair/Share* method. Have students share their results with the class using the *Graffiti* method. This will assist students in the completion of the worksheets if they were unable to respond to all questions. As a class, generate a list of examples for each type of document. Review, with the class, how to cite each of these based on prior learning from *Unit 2, Activity 3*.

Types of Electronic Documents Worksheet

Document	What is it?	Where can it be found?	Advantages	Disadvantages	Examples
Web site					
Electronic Periodical					
Electronic Book					
Database (online and CD-ROM)					
Newsgroup					

Part B

1. Using the *Search Engine Comparison Worksheet* below as a guide, explain the various Internet search query options (e.g., natural language, literal strings, Boolean operators) to the class. Explain that metasearch engines can be used to search more than one traditional search engine at once.
2. Assemble the class into groups of three. Explain that each group will have the opportunity to research a topic using different query techniques and at least five search engines, then they will present their results to the class. Distribute the *Search Engine Comparison Worksheet* and the *Search Engine Comparison Worksheet Reflection Questions* below, and assign each group a topic. This requires students to use three different search engines to research the same topic, using a variety of search techniques, and assess the differences in results. Each student should complete his/her own worksheet to submit to the teacher. These worksheets will be submitted to the teacher for evaluation at the end of the activity. Topics may include, but are not limited to, the following: *regions and cities in Canada that have the highest average Internet use; personal characteristics of Canadians that are indicators of computer and Internet use; main computer uses for businesses in Canada; main differences in use of the Internet versus Intranet in Canadian businesses; proportion of Canadian businesses that have web sites in operation; main purpose of business web sites in Canada (e.g., sales, information, corporate image); proportion of employed Canadians who have careers in information technology.*
3. Each group will make a brief (maximum five minutes) presentation to the class outlining what they discovered during their search. As a conclusion, groups should inform the class of which types of searches were most effective, and what advice they can offer to improve the results of the search. Presentations should be peer evaluated using the *Peer Evaluation Sheet (Appendix - Generic Forms)*.
4. Students will update their *Skills and Competencies Checklist* and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 4, Appendix A* as a guide.

Unit 4, Activity 1: Techniques for Powerful Research Using Internet Tools

5. Students will complete their *Reference Manual of Information Technology Terminology (Unit 1, Appendix A, Activity 1)* using *Unit 4, Appendix A* as a guide.

Search Engine Comparison Worksheet

Name: _____ Topic Researched: _____

Query Option Definitions

Natural Language - searching by keying your query in the form of a question. Example: “What is the population of

Literal Strings - searching by keying one or more words that make up a phrase, but not a sentence. Example: “population

Boolean Operators - Boolean operators are words that are keyed in between keywords to show the relationship between those keywords. The main Boolean operators are *and*, *or*, *not*, *adj*. Examples of their use are:

1. “Canada **and** population” would produce results that contain both of those words in one document.
2. “Canada **or** population” would produce results that contain either the word *Canada* or the word *population*.
3. “Canada **not** population” would produce results that contain only the word *Canada*.
4. “cordless **adj** telephone” would produce results that contain those two words in that order. In this example, changing **adj** cordless”) would produce totally different results.

Query used (write your exact words)	Number of hits for each search engine				Check the top 20 hits for each, assess how useful the information is to your research task, and write down the number of useful sites			
	#1	#2	#3	Metasearch	#1	#2	#3	Metasearch
Name of search engine								
Natural Language								
Literal String								
Boolean Only								

Search Engine Comparison Worksheet Reflection Questions

- a) Which query option produced the largest number of results (circle the answer): natural language, literal string, or Boolean operator?
- b) Which query option produced the most useful results (circle the answer): natural language, literal string, or Boolean operator?
- c) Name all of the search engines that you used for this exercise. For what purposes is a metasearch useful?
- d) Which search engine produced the largest number of results?
- e) Which search engine produced the most useful results?
- f) Based on your observations answering the questions above, is there a connection between the number of search results you find, and how useful they are? Explain.
- g) Based on this activity, what advice would you offer a person just learning to use the Internet to research? Explain your reasoning for the advice you offer.

Assessment/Evaluation Techniques

- diagnostic assessment based on student lists of knowledge of electronic research
- summative assessment of individual worksheets
- formative peer and teacher assessment of group presentations
- individual student/teacher conference to update each student’s personal growth plan
- *Reference Manual of Information Technology Terminology; Skills and Competencies Checklist*
- *Unit 4 Assessment Rubric*

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in the *Course Overview*
- assemble groups to ensure stronger students are able to assist weaker students
- provide students with research queries (natural language, literal strings, and Boolean operators) that are ready to use
- allow alternative methods of evaluation instead of requiring written responses only

Unit 4, Activity 1: Techniques for Powerful Research Using Internet Tools

Resources

- Ackermann, Ernest and Karen Hartman. *The Information Specialist's Guide to Searching and Researching on the Internet and the World Wide Web*. Abf Content, 1998, ISBN 1887902317.
- *The Canadian Encyclopedia*. McClelland & Stewart, Inc., 1998.
- *EBSCO Academic Abstracts FULLTEXT Elite*. Birmingham, AL: EBSCO Publishing, 1999.
- *Encyclopedia Britannica*. Encyclopedia Britannica, Inc., 1998.
- *1999 Grolier Multimedia Encyclopedia*. Grolier Interactive Inc., 1998.
- *Microsoft Encarta Encyclopedia*. Microsoft, 1998.
- *The Wall Street Journal Almanac*. Grolier Interactive Inc., 1998.
- Comer, Douglas E. *The Internet Book*. Toronto: Prentice Hall, 1997.
- Gilster, Paul. *Finding It on the Internet: The Internet Navigator's Guide to Search Tools and Techniques*. John Wiley & Sons, 1996, ISBN 0471126950.
- Jones, Debra. *Exploring the Internet Using Critical Thinking Skills: A Self-Paced Workbook for Learning to Effectively Use the Internet & Evaluate Online Information*. New York: Neal-Schuman Publishers Inc., 1998.
- Levine, John R. *The Internet for Dummies*. New York: IDG Books Worldwide, 1998.
- Pfaffenberger, Bryan. *Web Search Strategies*. IDG Books Worldwide, 1996, ISBN 1558284702.
- Robbins, Curt. *Conducting Internet Research*. NetQuest Publishing Inc., 1997, ISBN 1891976044.
- Salkind, Neil J. *Hands on Internet: Windows Edition*. South-Western Publishing Company, 1995.
- Video: *Internet Searching Skills (1998)*, NTSC format, ASIN: 1572251336.
- Video: *Information Superhighway - Internet (1994)*, NTSC format, ASIN: 6303289444.

Internet Web Sites

Metafind metasearch engine: <http://www.metafind.com>
Savvy Search metasearch engine: <http://www.savvysearch.com>
Metacrawler metasearch engine: <http://metacrawler.com>
Search Tips: <http://www.downtown.web.aol.com/srchtips.html>
UCF Libraries Critical Thinking and Information Literacy: <http://www.library.ucf.edu/Instruct/critthk.htm>
Teacher's Lounge (What is the Internet?): <http://edu-ss10.educ.queensu.ca/~hudsonp/>
Good Web Resources for Teachers: <http://www.ns.sympatico.ca/pioneers/webresources.html>
A Guide to Cyberspace: <http://library.uwaterloo.ca/webguide.61/guide.toc.html>
Sympatico Internet Tutorial: www1.sympatico.ca/help/Learn/internet.html
Sink or Swim: Internet Search Tools and Techniques: www.ouc.bc.ca/libr/connect96/search.htm
Planning a Search Strategy: www.olc.ouc.bc.ca/library/research/Research%20Strategy.html
How to Search on the Internet: www.ocdsb.edu.on.ca/library/search.htm
What is the Internet?: www.carleton.ca/~mmacneil/493/slides/internet/sld01.htm
Internet Guide for Users: www.srhip.on.ca/ResourceCentre/Training/NEWINTRO.html
WWW Access and Research Training Skills: www.lib.bcit.bc.ca/lj.htm
Exploring the Internet: <http://support.log.on.ca/ie4man/>
Search the Internet: www.ola.bc.ca/ol/services/library/seaint.html
Librarian's Bookmarks: www.ouc.bc.ca/lib/ross.html
Digging for Data: www.learnthenet.com/english/section/digdat.html
Searching Tips: www.algonquinc.on.ca/algweb/planning/lrc.tips.html

Appendices

- *Information Technology Terminology Checklist; Skills and Competencies Checklist*
- *Peer Evaluation Sheet (Appendix - Generic Forms)*
- *Unit 4 Assessment Rubric*

Unit 4, Activity 2: *Caveat Lector* a.k.a. Let the Reader Beware

Time: 360 minutes

Description

Building on the knowledge students achieved through completion of *Unit 4, Activity 1*, students will recognize the importance of, and develop a set of criteria for, the evaluation of electronic resources in the areas of validity, bias, confidentiality, usefulness, and how up to date they are. Students will apply the criteria to the research they obtain from the Internet. Peer, self, and teacher evaluation will take place to assess each student's application of concepts.

Strand(s) & Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations: IMV.01 ❖, ERV.01❖, ERV.02, COV.02❖

Specific Expectations: IM1.01 ❖, IM1.03, IM3.03❖, ER1.01, ER1.03-.05❖, ER3.02❖, ER3.03-.04, CO2.01-.05❖

Activity Instructions

Planning Notes

Note: Since this activity requires Internet access, students who have Internet access at home could complete parts of this activity in out-of-class time if a limited number of Internet access workstations are available.

Teachers should

- organize groups for this activity ahead of time, establishing how many will exist in total.
- prepare or modify assessment/evaluation tools so they can be given to students prior to beginning activities.
- establish in advance research topics that are to be assigned to students.
- ensure students have access to the Internet.
- have copies of a variety of types of magazines (e.g., fashion, decorating, people-oriented, news, sports) available to provide examples that demonstrate the importance of assessment and evaluation of sources.
- check all web sites in advance to ensure that they are still in operation.
- prepare all handouts prior to beginning activity.
- prepare a summative evaluation that makes provisions for a variety of learning styles.

Prior Knowledge Required

- refer to *Prior Knowledge Required, p. 4-1*
- knowledge of brainstorming, *Graffiti*, the ability to work in small groups, and conflict management strategies (*Course Overview*)
- ability to use the Internet (*Unit 2, Activity 2*) and perform advanced search queries (*Unit 4, Activity 1*)

Teaching/Learning Strategies

- brainstorming, *Graffiti*, whole class, small group, individual, *Skills and Competencies Checklist (Unit 4, Appendix A)*

Instructions

Part A

1. As a class, review the methods for performing advanced Internet queries as established in *Unit 4, Activity 1*. Individually, students will write a description of a topic they have researched, how they researched it, and the steps they used. The finished product will be submitted to the teacher to establish individual levels of knowledge in the area of research.
2. Have students browse through magazines to find outlandish and questionable titles of articles (e.g., *Alien Baby Found in Woods*, *Lester B. Pearson's Ghost Advising Premier on Provincial Budget*, *Amazing Longevity Secrets of the Stars*). Have the students write a critique of the article describing the topic, how they researched it, and the steps they used to help them determine if they think the article is a good source of

Unit 4, Activity 2: *Caveat Lector* a.k.a. Let the Reader Beware

research information. Using the critiques as examples, facilitate a discussion about the importance of evaluating and assessing sources obtained when researching.

3. Based on that discussion, create a class list of criteria for the evaluation of research. Use the *Electronic Resource Evaluation Sheet* below as a guide to ensure that the key criteria are identified and included in the discussion. Clarify and enhance students' terminology by discussing the concepts of *validity*, *bias*, *how up to date they are*, *confidentiality*, and *usefulness*. Ensure the class generates examples of each criterion. At the end of the discussion, have students complete the self-evaluation questions below.
4. Using the *Graffiti* method, have students write down, on large sheets of paper, specific ways they can assess *validity*, *bias*, *how up to date they are*, *confidentiality*, and *usefulness*. Post these in a visible place in the classroom.

Part B

1. Assign research topics to individual students. The topics researched can be student generated or prescribed by the teacher. Each student should locate one original resource from the Internet using the research strategy and query options established in *Unit 4, Activity 1*. Each student will print his/her source, and evaluate it using the *Electronic Research Evaluation Sheet* below. The document and evaluation should be stapled together. Each student repeats the process until three different electronic documents pertaining to the same topic have been located and individually evaluated. Each student, at the end of the activity, should hand in for evaluation a complete package consisting of completed copies of the *Electronic Resource Self-Evaluation Questions* and the *Electronic Resources Evaluation Sheet*.

Electronic Resource Self-Evaluation Questions

- | |
|--|
| <ol style="list-style-type: none">a) Define the terms validity, bias, confidentiality, and usefulness. Give one example that describes each term.b) Why is it important that a resource be up to date?c) In your opinion, which one of these criteria is the most difficult to evaluate? Why?d) In your opinion, which one of these criteria is the least difficult to evaluate? Why?e) What can you do to improve your ability to evaluate research sources and electronic documents? |
|--|

2. Facilitate a class debriefing session during which the entire class compares their results and discusses their difficulties. The teacher should address any concerns expressed by the students.
3. Students will update their *Skills and Competencies Checklist* and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 4, Appendix A* as a guide.
4. Students will complete their *Reference Manual of Information Technology Terminology* (*Unit 1, Appendix A, Activity 1*) using *Unit 4, Appendix A* as a guide.

Assessment/Evaluation Techniques

- diagnostic of individual research background and ideas for structure
- formative self-reflection and evaluation of the activity
- summative assessment by teacher of final product
- individual student/teacher conference to update each student's personal growth plan
- *Reference Manual of Information Technology Terminology*
- *Skills and Competencies Checklist*
- *Unit 4 Assessment Rubric*

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in the *Course Overview*
- present this as a group activity, assembling groups to ensure stronger students are able to assist weaker students
- provide students with the teacher-generated *Electronic Resource Evaluation Sheet* below
- provide students with electronic documents to evaluate that are straightforward
- have students work with their group instead of individually to perform a self-reflection and evaluation, allowing students to assist one another
- allow alternative methods of evaluation instead of requiring written responses only

Unit 4, Activity 2: *Caveat Lector* a.k.a. Let the Reader Beware

Electronic Resource Evaluation Sheet

Title: _____ Source: _____

Validity is a word used to describe how truthful, logical, and trustworthy information is. When doing research, it is important to use **valid** information to ensure that your work is as correct as possible. When evaluating an electronic resource, separately look at the validity of the author, the publisher, and the facts.

<i>Author Validity</i>		
<i>Dimension</i>	<i>What to look for</i>	<i>1 = poor, 5 = excellent</i>
Is the author named?	<ul style="list-style-type: none"> author should be named 	1 2 3 4 5
What makes the author qualified to write about that subject?	<ul style="list-style-type: none"> author's qualifications, career, or education should be listed, and be relevant to the subject 	1 2 3 4 5
<i>Publisher Validity</i>		
Is the company/organization publishing the information trustworthy?	<ul style="list-style-type: none"> look for reputable companies that you have heard of if the publisher is trying to sell something by using this information, be suspicious of its validity 	1 2 3 4 5
<i>Fact Validity</i>		
Are links available to check "facts"?	<ul style="list-style-type: none"> links that work are helpful in checking facts; those links should be visited and evaluated for their validity 	1 2 3 4 5
Are references provided from which the facts were taken?	<ul style="list-style-type: none"> the references should be well-known organizations, books, or government agencies 	1 2 3 4 5

Bias is a word used to describe information that is incorrect or incomplete for a specific purpose. For example, a tobacco manufacturer might leave out some facts about the dangers of tobacco in a document about cigarettes in order to make the company look better or to sell their product. This prejudiced information is biased.

<i>Bias</i>		
<i>Dimension</i>	<i>What to look for</i>	<i>1 = poor, 5 = excellent</i>
What is the purpose of the information?	<ul style="list-style-type: none"> information is usually provided to either persuade you to believe something (high bias = poor), to inform about a subject (possible bias), or to explain a concept (possible bias) 	1 2 3 4 5
Is there any reason that the author or publisher would want to withhold facts?	<ul style="list-style-type: none"> if the author withholds facts (e.g., if they are trying to sell something), then it may be high bias 	1 2 3 4 5
Is there any advertising in the document?	<ul style="list-style-type: none"> sometimes advertising can lead to bias in order to please advertisers (poor) 	1 2 3 4 5

Up-to-date is how recent the information you are using was published.

<i>Up-to-date</i>		
<i>Dimension</i>	<i>What to look for</i>	<i>1 = poor, 5 = excellent</i>
When was the information written?	<ul style="list-style-type: none"> more recent is better 	1 2 3 4 5
When was it last updated?	<ul style="list-style-type: none"> recent and frequent updates are better 	1 2 3 4 5

Confidentiality is the degree to which information is for private use. Giving that information to others could cause ethical problems. For example, for privacy reasons, the personal medical files of a patient could not be published by her doctor without special permission from the patient. Often, this type of information could harm one of the parties involved.

<i>Confidentiality</i>		
<i>Dimension</i>	<i>What to look for</i>	<i>1 = poor, 5 = excellent</i>
Is the information allowed to be seen by the general public?	<ul style="list-style-type: none"> poor confidentiality contains information that could hurt others poor confidentiality contains information that is protected by privacy laws 	1 2 3 4 5

Usefulness is the degree to which the information helps you meet your research goals.

<i>Usefulness</i>		
<i>Dimension</i>	<i>What to look for</i>	<i>1 = poor, 5 = excellent</i>
Did the information tell you what you needed to know?	<ul style="list-style-type: none"> the more it told you what you need to know, the better 	1 2 3 4 5

Unit 4, Activity 2: *Caveat Lector* a.k.a. Let the Reader Beware

Resources

- Carroll, Jim and Rick Broadhead. *1999 Canadian Internet Handbook*. Toronto: Prentice Hall, 1998.
- Halpern, Diane F. *Critical Thinking Across the Curriculum: A Brief Edition of Thought & Knowledge*. Lawrence Erlbaum Associates, Inc., 1997.
- Jones, Debra. *Exploring the Internet Using Critical Thinking Skills: A Self-Paced Workbook for Learning to Effectively Use the Internet & Evaluate Online Information*. New York: Neal-Schuman Publishers Inc., 1998.
- Levy, David A. *Tools of Critical Thinking*. Allyn & Bacon Publishers, 1996.
- Paul, Richard, et al. *Critical Thinking: How to Prepare Students for a Rapidly Changing World*. Senoma, CA: Foundation for Critical Thinking, 1998.
- Pinto, Robert C. and John Anthony Blair. *Reasoning: A Practical Guide for Canadian Students*. Toronto: Prentice Hall, 1993.

Internet Web Sites

Evaluating Internet Resources: www.oise.utoronto.ca/~dwallace/evaluation.checklists.html

Web site Evaluation: <http://aix1.uottawa.ca/~ecampbel/checklst.htm>

Evaluating Information on the Internet: <http://slis6000.slis.uwo.ca/~rlavergn/pointofu.html>

Evaluating Web sites: www.2learn.ca/evaluating/evaluating.html

Evaluating Information Found on the Internet: <http://milton.mse.jhu.edu:8001/research/education/net.htm>

Evaluating WWW Information: <http://thorplus.lib.purdue.edu/research/classes/gsl75/3gsl75/evaluation.html>

Criteria for Evaluation of Internet Information Resources: <http://www.vuw.ac.nz/~agsmith/evaln/index.htm>

Caveat Emptor on the Web: Ad and Editorial Lines Blur: <http://www.nytimes.com/library/tech/99/02/biztech/articles/>

Evaluating Quality on the Net: <http://www.tiac.net/users/hope/findqual.html>

Appendices

- *Information Technology Terminology Checklist*
- *Skills and Competencies Checklist*
- *Unit 4 Assessment Rubric*

Unit 4, Activity 3: Internet Connections and Computer Viruses

Time: 120 minutes

Description

Students will compare the offerings of local Internet service providers, explore how the Internet is constructed, and learn how this relates to the transmission of viruses. Using the *Jigsaw/Expert Group* method, students will research specific topics related to virus safety. Students will individually create *Virus Safety Toolkit* booklets.

Strand(s) & Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Electronic Communication, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations: IMV.01❖, ERV.01❖, COV.02❖

Specific Expectations: IM1.01❖, IM3.03-.04❖, IM4.04-.05❖, EC3.01, ER1.04❖, ER2.01-.02, CO2.01-.05❖

Activity Instructions

Planning Notes

Teachers should

- organize groups for this activity ahead of time.
- prepare or modify assessment/evaluation tools so they can be given to students prior to beginning activities.
- locate a diagram that illustrates how Internet connections are made, and produce a transparency. Refer to the *Resources* section at the end of the lesson for web sites that contain samples.
- ensure computers with Internet connections are available for student use in researching the topic.
- check all web sites in advance to ensure they are still in operation.
- prepare all handouts prior to beginning activity.
- remind students that an *Electronic Resource Evaluation Sheet* must support all research information obtained from electronic sources.
- prepare a summative evaluation that makes provisions for a variety of learning styles.

Prior Knowledge Required

- refer to *Prior Knowledge Required, p. 4-1*
- knowledge of brainstorming, *Think/Pair/Share*, *Jigsaw/Expert Group*, the ability to work in small groups, conflict management strategies, and an understanding of group presentation skills (*Course Overview*) are essential
- ability to use the Internet (*Unit 2, Activity 1*)

Teaching/Learning Strategies

- brainstorming, *Think/Pair/Share*, *Jigsaw/Expert Group*, individual work, *Skills and Competencies Checklist (Unit 4, Appendix A)*

Instructions

Part A

1. Using *Think/Pair/Share*, have pairs of students draw a diagram that represents their perception of how the Internet works. The teacher will circulate around the room as students perform this activity, assessing individual levels of previous knowledge.
2. Locate a diagram that illustrates how Internet connections are made, and produce a transparency of the diagram. As a class, discuss the components required to communicate via the Internet and how they are connected. Have students share similarities and differences between their diagrams and the overhead.

Unit 4, Activity 3: Internet Connections and Computer Viruses

3. Arrange students in groups of three or four to compare the services provided by several *Internet Service Providers (ISPs)*. Either provide students with brochures from ISPs, or allow them to search the Internet for examples. Each group should hand in a sheet that includes the following information:

SERVICE	ISP #1:	ISP #2:	ISP #3:
Price and number of hours			
Method of connection			
Benefits and features of service			
Disadvantages of service			
E-mail features			

Part B

1. Facilitate a discussion leading students to describe why safety is a concern when transmitting information via the Internet. Brainstorm a list of potential dangers of using the Internet, ensuring viruses are included on that list.
2. Explain that students will be using *Jigsaw/Expert Groups* to become experts on four topics pertaining to viruses on the Internet. Individual groups will be required to work on one of the following topics: *5 tips for protecting against viruses; 5 ways a virus can penetrate a computer; 5 common viruses and descriptions of them; 5 things you can do if your computer gets infected with a virus.*
3. After groups complete their research, expert groups will be formed to share knowledge. At this time, students will create individual *Virus Safety Toolkits*, using the form below, that will be evaluated by the teacher.
4. Students will update their *Skills and Competencies Checklists* and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 4, Appendix A* as a guide.
5. Students will complete their *Reference Manual of Information Technology Terminology* (*Unit 1, Appendix A, Activity 1*) using *Unit 4, Appendix A* as a guide.

Assessment/Evaluation Techniques

- diagnostic assessment through teacher inspection of students' Internet diagrams
- formative assessment of group results
- summative assessment of individual *Virus Safety Toolkits*
- individual student/teacher conference to update each student's personal growth plan
- *Reference Manual of Information Technology Terminology ; Skills and Competencies Checklist*
- *Unit 4 Assessment Rubric*

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in the *Course Overview*
- assemble groups to ensure stronger students are able to assist weaker students
- provide students with a worksheet similar to the one above for their *Virus Safety Toolkits*
- allow alternative methods of evaluation instead of requiring written responses only

Unit 4, Activity 3: Internet Connections and Computer Viruses

Sample Virus Safety Toolkit

<p style="text-align: center;"><u>Paths to Virus Infection</u></p> <ol style="list-style-type: none">1.2.3.4.5.	<p style="text-align: center;"><u>Tips To Protect Myself Against Viruses</u></p> <ol style="list-style-type: none">1.2.3.4.5.
<p style="text-align: center;"><u>5 Common Viruses & Their Characteristics</u></p> <ol style="list-style-type: none">1.2.3.4.5.	<p style="text-align: center;"><u>Things To Do To Cure a Virus</u></p> <ol style="list-style-type: none">1.2.3.4.5.

Sample Virus Safety Toolkit Answers

<p style="text-align: center;"><u>Paths to Virus Infection</u></p> <ol style="list-style-type: none">1. Disks – if infected, spread when opened2. CD-ROMs – files within them can be infected3. Modem – while downloading information4. WANs and LANs – files saved on shared servers can spread5. E-mail – opening infected attachments can spread a virus6. People – can write a program onto your hard drive to purposely infect your system7. Internet – downloading and opening files from web sites8. Bulletin Boards – logging onto an infected bulletin board can infect your system	<p style="text-align: center;"><u>Tips To Protect Myself Against Viruses</u></p> <ol style="list-style-type: none">1. Scan disks for viruses.2. Set the write-protect tab on foreign disks.3. Back up all your files regularly.4. Regularly run anti-virus software.5. Regularly update anti-virus software.6. Lock your computer with a password.
<p style="text-align: center;"><u>5 Common Viruses & Their Characteristics</u></p> <ol style="list-style-type: none">1. <i>Merry Xmas</i> – plays holiday music, then hangs up the system2. <i>Larry</i> – infects .COM and .EXE programs, including COMMAND.COM, when they are executed; increases the length of infected programs; message on monitor “Larry on a Screen”3. <i>Little Girl</i> - a destructive virus that overwrites the contents of the hard drive deleting programs and files4. <i>Frogs</i> – activates on the 5th day of any month, displays the message: "(V) AIDS R.2A - Welcome to Frog's Alley!, (c) STPII Laboratory - Jan 1990"5. <i>Doggie.A;B</i> – displays a message box that says “Doggie” when opening an infected file	<p style="text-align: center;"><u>Things To Do To Cure a Virus</u></p> <ol style="list-style-type: none">1. Determine exactly which Virus you have (use Virus software and/or the Internet).2. Boot the computer from an uninfected system disk containing a copy of the virus cleaning software.3. Scan and clean, or reformat <i>every</i> floppy disk you own (reformatting <i>does</i> clean floppies).4. If necessary, manually remove the virus from all program files.

Resources

- Cohen, Frederick B. *A Short Course on Computer Viruses*. John Wiley & Sons Canada, 1994, ISBN 0471007684.
- Comer, Douglas E. *The Internet Book*. Toronto: Prentice Hall, 1997.
- Levine, John R. *The Internet for Dummies*. New York: IDG Books Worldwide, 1998.
- Ludwig, Mark A. *A Giant Black Book of Computer Viruses*. American Eagle Publications, 1998, ISBN 0929408233.
- Scully, Angus, et. al. *High Technology: Canada and Information Age*. Scarborough: Prentice Hall Ginn Canada, 1997.
- Salkind, Neil J. *Hands on Internet: Windows Edition*. South-Western Publishing Company, 1995.
- Slade, Robert. *Robert Slade's Guide to Computer Viruses: How to Avoid Them, How to Get Rid of Them, and How to Get Help*. Springer-Verlag, 1996, ISBN 0387946632.

Unit 4, Activity 3: Internet Connections and Computer Viruses

Internet Web Sites

PC World Magazine ViroQuiz: <http://www.pcworld.com/software/utility/articles/mar97/1503p180y.html>

Knowledge Base - What should I do if I receive a computer virus alert message via e-mail?:

<http://indiana.edu/data/adbm.html>

Computer Virus Myths: <http://www.kumite.com/myths/home.htm>

Muskie's Concise Guide to Computer Viruses: <http://www.grrltalk.net/muskie/virus.htm>

What is the Internet: www.carleton.ca/~mmacneil/493/slides/intemet/sld01.html

How to Protect Yourself From Viruses: www.upei.ca/~compserv/howto/virus.htm

Computer Viruses: www.cs.uregina.ca/~schulhau/compred.htm

Protecting Your PC and Media Against Computer Viruses: www.utoronto.ca/security/virus.htm

Computer Viruses: www.ccs.queensu.ca/pubs/itsnote/virus.html

Cratus - Understanding the Internet: <http://www.cratus.com/cratus.guide.asp>

Using the Internet for Research: www.sofweb.vic.edu.au/internet/research.htm

Appendices

- *Information Technology Terminology Checklist*
- *Skills and Competencies Checklist*
- *Unit 4 Assessment Rubric*

Unit 4, Activity 4: Shrinking the World: Customs and Cultures on the WWW

Time: 360 minutes

Description

Students will identify the importance of knowledge of customs, culture, etiquette, and protocol of other countries in conducting business internationally. Using electronic research, small groups will research a country, prepare a business letter to explain the information they located, and make a presentation to the class demonstrating their knowledge of that country's business etiquette.

Strand(s) & Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Software Applications, Electronic Communication, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations: IMI.01❖, SAV.03❖, ECV.02❖, ERV.01❖, ERV.02, COV.02❖

Specific Expectations: IM1.01❖, SA3.01-.03❖, EC3.01-.02, ER1.04❖, ER1.05, CO2.01-.05❖

Activity Instructions

Planning Notes

Teachers should

- organize groups for this activity in advance, establishing how many will exist in total.
- prepare or modify assessment/evaluation tools so they can be given to students prior to beginning activities.
- establish a list of countries that you would like the students to research to ensure that each group has a different country, and that the countries are prominent enough to have ample information available.
- check all web sites in advance to ensure they are still in operation.
- have a sample business letter format (*Unit 2, Appendix E*) or template for students to use in creating their business document.
- prepare all handouts prior to beginning activity.
- remind students that an *Electronic Resource Evaluation Sheet* must support all research information obtained from electronic sources.
- prepare a summative evaluation that makes provisions for a variety of learning styles.
- speak with teachers in other disciplines (e.g., geography, history, family studies) to see if this activity can be done in conjunction with other classes as a cross-curricular project.
- consider establishing electronic pen pals from other cultures through educational organizations.

Prior Knowledge Required

- refer to *Prior Knowledge Required, p. 4-1*
- knowledge of brainstorming, *Think/Pair/Share*, research techniques, the ability to work in small groups, conflict management strategies, and an understanding of group presentation skills (*Course Overview*) are essential
- investigate all recommended web sites prior to the activity to ensure they are still in operation
- students may provide photos of themselves, or the teacher may take photos of each student to be included in the student-created passport
- ensure students have access to the Internet
- ability to use the Internet (*Unit 2, Activity 2*), word processing skills (*Unit 2, Activity 1*), and desktop publishing skills (*Unit 2, Activity 3*)

Unit 4, Activity 4: Shrinking the World: Customs and Cultures on the WWW

Teaching/Learning Strategies

- brainstorming, small group work, oral presentation, *Skills and Competencies Checklist (Unit 4, Appendix A)*

Instructions

Part A

1. Facilitate a discussion about etiquette and customs in Canada, defining the terms *etiquette* and *custom*. Introduce and define the term *protocol*. Discuss how ethnic, racial, and political problems can affect conducting business in a country. Using brainstorming, generate a list of Canadian business etiquette. Using the *Think/Pair/Share* method, have the students group the etiquette list into categories. Write the categories generated by the class on the board or on chart paper. The list should include greeting, identification (e.g., business cards), language, gift giving, apparel/clothing, basic manners, as well as any additional student-generated categories.
2. Discuss how customs, etiquette, and protocol vary from country to country. Generate a class list of reasons why business professionals should have knowledge of the customs, etiquette, and protocol of other countries if they intend to conduct international business.

Part B

1. In groups of three or four, students will research the business practices of a particular country, create passports for members of the group, prepare a business letter to explain the business practices of that country, and make a presentation to the class that demonstrates the customs, etiquette, and protocol of that country. Ensure that there is no duplication of countries researched.
2. Have students complete the *Shrinking Your World Pre-Assignment Questions* below as a diagnostic tool. This will ensure that students have the basic prerequisite knowledge to complete the assignment, and will assist them in planning their process to complete the assignment.

Shrinking Your World Pre-Assignment Questions

- 1) Define the following terms: (a) custom; (b) etiquette; (c) protocol; (d) ethnic, racial, political problems.
- 2) Describe why those terms are important to people who are conducting international business.
- 3) Describe what the *Shrinking Your World* assignment requires you to do.
- 4) Outline the research strategy you will use.
- 5) Describe some strategies you can use to create an effective presentation.
- 6) What, if any, difficulties do you think you might encounter in doing this assignment?
- 7) How might you overcome those difficulties?

3. Distribute copies of the *Shrinking Your World Passport Template (Unit 4, Appendix B)* and the *Shrinking Your World Sample Evaluation* below. In small groups, students will perform Internet research to obtain the information required for their passports. The teacher will check each group's passport to ensure they have obtained ample and correct information before proceeding to the next step. It is suggested that the teacher perform formative assessment at this time.
4. Once passports and research are completed, each group completes a business letter, addressed to the class, outlining the things they should know if they were to do business in the country being researched. This will be submitted to the teacher for evaluation.
5. Individual groups prepare a presentation for the class that communicates the information contained in the letter, and conduct the presentation using the etiquette and customs of that country. If possible, business attire should be a part of the presentation. The presentation will be peer evaluated using the *Peer Evaluation Sheet (Appendix - Generic Forms)*.
6. At the end of the activity, groups will complete *Group Process Evaluation - The Team in Review (Appendix - Generic Forms)*. Each group will hand in a package to the teacher for evaluation including all student passports, the business letter, a presentation outline, and the group evaluation.
7. Students will update their *Skills and Competencies Checklist* and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 4, Appendix A* as a guide.
8. Students will complete their *Reference Manual of Information Technology Terminology (Unit 1, Appendix A, Activity 1)* using *Unit 4, Appendix A* as a guide.

Unit 4, Activity 4: Shrinking the World: Customs and Cultures on the WWW

Shrinking Your World Sample Evaluation

Component	Criteria	Comments and Mark
Pre-Assignment	<input type="checkbox"/> completeness	/5
Passport	<input type="checkbox"/> completeness	/5
	<input type="checkbox"/> creativity of layout (refer to <i>Unit 2, Activity 3</i> for details)	/15
	<input type="checkbox"/> accuracy of information	/15
Presentation	<input type="checkbox"/> information complete (description of country, etiquette, protocol, greetings, customs, and ethnic, racial, and political problems)	/5
	<input type="checkbox"/> presenter used the customs of the country while speaking and presenting	/5
	<input type="checkbox"/> use of appropriate visuals or props	/5
	<input type="checkbox"/> presentation is well-organized (preparedness, information presented in a logical order)	/5
Business Letter	<input type="checkbox"/> proper business letter format used	/5
	<input type="checkbox"/> appropriate language, grammar, and spelling	/5
	<input type="checkbox"/> comprehensive and accurate description of at least three things one ought to know if planning to do business in the country identified	/10
Total Mark		/80

Assessment/Evaluation Techniques

- diagnostic assessment using pre-assignment
- formative assessment and approval of group research by teacher
- summative assessment of final product by teacher
- summative group process evaluation
- summative peer evaluation of group presentation
- individual student/teacher conference to update each student's personal growth plan
- *Reference Manual of Information Technology Terminology*
- *Skills and Competencies Checklist*
- *Unit 4 Assessment Rubric*

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in the *Course Overview*
- assemble groups to ensure stronger students are able to assist weaker students
- provide students with worksheets for their passports in lieu of templates
- provide students with pre-printed culture and custom research for those who have difficulty researching on their own
- allow alternative methods of evaluation instead of requiring written responses only
- provide a worksheet from which to plan their presentations
- have groups use a worksheet instead of creating an original business letter

Resources

- Bucki, Lisa A. and Judy Fischer. *Learning Computer Applications, Projects and Exercises*. DDC Publishing, New York, 1999, ISBN 1-56234-750-X.
- *The Canadian Encyclopedia*. McClelland & Stewart, Inc., 1998.
- *EBSCO Academic Abstracts FULLTEXT Elite*. Birmingham, AL: EBSCO Publishing, 1999.
- *Encyclopedia Britannica*. Encyclopedia Britannica, Inc., 1998.
- *Microsoft Encarta Encyclopedia*. Microsoft, 1998.
- *1999 Grolier Multimedia Encyclopedia*. Grolier Interactive Inc., 1998.

Unit 4, Activity 4: Shrinking the World: Customs and Cultures on the WWW

Internet Web Sites

International Cultural Information: <http://www.byu.edu/culturegrams>
Information About Countries: <http://www.odci.gov/cia/publications/nsolo.factbook>
Thinking International: <http://certificate.net/wwio/biz20.shtml>
International Gift Giving Protocol: <http://certificate.net/wwio/biz22.shtml>
Direct Quest Brings You the World - Countries, Cultures, Customs, etc.:
<http://www.directquest.com/World/index.htm>
International Customs: <http://www.getcustoms.com/mapdemo.bar.htm>
The Web of Culture: Gestures Around the World: <http://www.webofculture.com/edu.gestures.htm>
International Business Etiquette: <http://ww.asu.edu/lib/hayden/ref/busi/intletiq.html>
Business Customs, Protocols, Practices: <http://www.worldbiz.com/>
Etiquette International: <http://etiquetteintl.com/firstgetgood.htm>
How to Avoid Cultural Blunders: www.msnbc.com/news/224480.asp

Appendices

- *Information Technology Terminology Checklist*
- *Skills and Competencies Checklist*
- *Shrinking Your World Passport Template*
- *Group Process Evaluation - The Team in Review (Appendix - Generic Forms)*
- *Peer Evaluation Sheet (Appendix - Generic Forms)*
- *Oral Presentation Rubric (Appendix - Generic Forms)*
- *Unit 4 Assessment Rubric*

Unit 4, Assessment Rubric

Unit 4 Assessment Rubric

Categories	Level 1	Level 2	Level 3	Level 4
Knowledge/ Understanding	<ul style="list-style-type: none"> • understanding of concepts, principles, and theories • understanding of relationships between concepts 			
understands terminology	demonstrates limited understanding of terminology	demonstrates some understanding of terminology	demonstrates considerable understanding of terminology	demonstrates thorough understanding of terminology
locates information through research	demonstrates limited ability to locate information	demonstrates some ability to locate information	demonstrates considerable ability to locate information	demonstrates outstanding ability to locate information
explains how the Internet works	demonstrates limited understanding of how the Internet works	demonstrates some understanding of how the Internet works	demonstrates considerable understanding of how the Internet works	demonstrates high degree of understanding of how the Internet works

Categories	Level 1	Level 2	Level 3	Level 4
Thinking/Inquiry	<ul style="list-style-type: none"> • creative and critical thinking skills • inquiry skills 			
researches effectively using prescribed strategy	demonstrates limited ability to research effectively using prescribed strategy	demonstrates some ability to research effectively using prescribed strategy	demonstrates considerable ability to research effectively using prescribed strategy	demonstrates outstanding ability to research effectively using prescribed strategy
evaluates electronic documents as prescribed	demonstrates limited ability to evaluate electronic documents	demonstrates some ability to evaluate electronic documents	demonstrates considerable ability to evaluate electronic documents	demonstrates outstanding ability to evaluate electronic documents

Categories	Level 1	Level 2	Level 3	Level 4
Communication	<ul style="list-style-type: none"> • communication of information and ideas • communication for different audiences and purposes • use of various forms of communication 			
presents research findings to class	presents research with limited clarity	presents research with some clarity	presents research with considerable clarity	presents research with high degree of clarity
demonstrates business etiquette and protocol through presentation	demonstrates limited business etiquette and protocol through presentation	demonstrates some business etiquette and protocol through presentation	demonstrates considerable business etiquette and protocol through presentation	demonstrates high degree of business etiquette and protocol through presentation

Categories	Level 1	Level 2	Level 3	Level 4
Application	<ul style="list-style-type: none"> • transfer of concepts, skills, and procedures to new contexts • use and application of equipment, materials, and technology 			
uses technology to research topics in numerous ways	uses technology to research topics in a few ways	uses technology to research topics in some ways	uses technology to research topics in many ways	uses technology to research topics in all ways
creates an accurate desktop-published passport	demonstrates limited ability to create an accurate desktop-published passport	demonstrates some ability to create an accurate desktop-published passport	demonstrates considerable ability to create an accurate desktop-published passport	demonstrates outstanding ability to create an accurate desktop-published passport

Unit 4, Appendix A

Unit 4, Information Technology Terminology Checklists

Each of the following terms is to be added to your *Reference Manual of Information Technology*. Check off the terms as you input them.

Techniques for Powerful Research Using Internet Tools

- ' Boolean operator
- ' electronic book
- ' electronic periodical
- ' literal string
- ' metasearch
- ' natural language
- ' query
- ' query report
- ' relevance ranking
- ' search engine
- ' truncation

Caveat Lector a.k.a. Let the Reader Beware

- ' bias
- ' confidentiality
- ' usefulness
- ' valid
- ' validity

Internet Connections and Computer Viruses

- ' antivirus software
- ' download
- ' electronic mail (e-mail)
- ' encryption and decryption
- ' infection
- ' Internet Service Provider
- ' modem
- ' node
- ' remote access
- ' router

Shrinking the World: Cultures and Customs on the WWW

- ' culture
- ' custom
- ' etiquette, cultural etiquette
- ' ethnic, racial, and political problems
- ' heritage
- ' industry
- ' occupation
- ' protocol

Unit 4, Skills and Competencies Checklists

Techniques for Powerful Research Using Internet Tools

- design a research strategy
- cite electronic references correctly
- research a topic
- compare the effectiveness of, and contrast a sample of, search engines
- use a variety of techniques (e.g., natural language, literal strings, Boolean operators) to complete a search

Caveat Lector a.k.a. Let the Reader Beware

- research a topic using at least two types of electronic documents
- explain the concepts of validity, bias, confidentiality, usefulness, and how up to date it is
- evaluate electronic research results based on the concepts of validity, bias, confidentiality, usefulness, and how up to date it is

Internet Connections and Computer Viruses

- explain how the Internet works
- explain how viruses work
- explain how viruses are transmitted
- identify ways to avoid viruses
- name 5 current viruses and their symptoms
- understand what steps to take if you become infected with a virus

Shrinking the World: Cultures and Customs on the WWW

- identify Canadian business etiquette
- research a nation and its culture, customs, and business etiquette
- create a team passport
- create a business document that reflects the culture of the nation studied
- make a presentation before the class that reflects the customs and business etiquette of the nation studied
- create a class comparison chart of the cultures studied

Unit 4, Appendix B

Shrinking Your World Passport Template

This passport belongs to _____ as a representative for the country of _____.

Names of team members: _____

Country Information:

Continent: _____
Capital City: _____
Land area: _____
Population: _____
Official Language: _____
Currency: _____
Major Industries: _____
Imports: _____
Exports: _____

Map Title	
<i>INSERT MAP OF THE COUNTRY HERE</i>	
*Capital City	Scale:

Culture and Customs:

<i>INSERT FLAG OF THE COUNTRY HERE</i>

Write a paragraph in this space that explains the culture and customs of your chosen country. The paragraph should include the following information: brief history of the country; traditional greetings; use of business language; business clothing/appearance/attire; gift-giving customs for business; ways people identify themselves and their status or business rank; ethnic, racial, and political problems, etc.

<i>INSERT PHOTO OF PASSPORT HOLDER</i>

X _____
Signature of Passport Holder

Unit 5: Investigating Information Technology and Your Future

Time: 18 hours

Unit Developer(s): Laura Pinto, Toronto District School Board
Avanell Scherer, Hamilton
Sharon Stephanian, Hamilton-Wentworth District School Board

Development Date: July 1999

Unit Description

Students will assemble a scrapbook consisting of different information technology job advertisements, use the Internet to access a variety of web sites related to locating job advertisements, use appropriate software to produce a desktop-published document that will provide Internet advice for the “job hunter,” explore the information technology options in their school, and revise their information technology growth plans based on this newly-acquired information. Using copies of the exemplary work and information technology *Skills and Competencies Checklists* which students have collected throughout the course, they will determine their levels of achievement and organize their portfolios accordingly. Students’ overall performance for this unit will be evaluated using the *Unit 5 Assessment Rubric*.

Strand(s) & Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Software Applications, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations: IMV.01❖, IMV.04❖, SAV.01-02, SAV.03❖, ERV.01❖, COV.01-03❖

Specific Expectations: IM1.01❖, IM1.03❖, IM4.02❖, SA1.01-03, SA2.03, SA3.01-02❖, ER1.01❖, ER1.03-05❖, CO1.01-03❖, CO2.01-05❖, CO3.01-03❖

Activity Titles (Time + Sequence)

Activity 1	Information Technology Careers Scrapbook	4 hours
Activity 2	A Pathway to Jobs on the Internet	3 hours
Activity 3	My Personal Portfolio	8 hours
Activity 4	Investigating Information Technology Programs in Your School	3 hours

Prior Knowledge Required

- ability to use basic data entry, Internet search, and desktop publishing skills
- knowledge of brainstorming, *Think/Pair/Square* co-operative learning strategies, the ability to work in small groups, conflict management strategies, and an understanding of group presentation skills (*Course Overview*) (*Oral Presentation Rubric*, *Appendix - Generic Forms* are essential)
- ability to formulate a plan for an oral interview and record information obtained during the interview

Unit Planning Notes

- *Activity 1* should begin early in the course and be repeated on a continuous basis; it is designed in such a way that it can be used as warm-up activity once a week
- *Activity 3* should begin during the first week of the course and continue throughout because students need to assess their information technology skills and competencies on a regular basis

Unit 5: Investigating Information Technology and Your Future

- provide students with ongoing access to a variety of newspapers and magazines containing job advertisements
- prepare assessment/evaluation tools so that they can be given to students prior to beginning activities
- prepare all handouts prior to beginning activities
- have all resources, hardware/equipment, supplies, etc. available before beginning activities
- check all web sites that students will be required to use to ensure they are still in operation
- determine and prepare material that has been modified for students with special needs (refer to *Special Education* and *ESL Accommodations* in *Course Overview*)
- select appropriate software for word processing, database, spreadsheet, and desktop publishing

Teaching/Learning Strategies

Note: Strategies specific to a particular activity are given within the activity.

- brainstorming, co-operative learning, constructing/creating, researching/sharing, student/teacher consultation, assessing, oral/visual/kinaesthetic, interactive, reading/comprehension, responding, writing, reflecting, discussing, presenting, exploring, analysing, thinking/inquiring
- keep track of assignments on an ongoing basis to ensure that students do not fall behind
- provide exemplars of finished products to ensure students understand what is expected of them
- allow students to self-pace their skill development
- use the overhead or the chalkboard to highlight difficult concepts or vocabulary
- this unit provides many opportunities where students and teachers may link with other subject disciplines; students should be encouraged to use a word processor, spreadsheet, database, and desktop publisher, where appropriate, for document production in other courses; Internet search engines should be used when locating information for other courses
- teachers may request that students include products in their portfolios or personal folders, or filed electronically, that demonstrate a transference of skills from this course to other courses
- create assessment/evaluation tools to meet a variety of learning styles
- check all web sites in advance to ensure they are operable

Assessment/Evaluation Techniques

- summative, formative, diagnostic
- self, group, peer, teacher, reflection, checklist, content, process, rubrics, completion of portfolios
- assessment and evaluation tools should be constructed to reflect the appropriate categories (*Final Course Evaluation, Course Overview*)

Resources

- resources for a specific activity have been included with the activity
- general resources are listed in the *Course Overview*
- software manuals
- word processor; e.g., *Corel WordPerfect, Microsoft Works, Clarisworks, Microsoft Word, Lotus WordPro*
- spreadsheet; e.g., *Corel Quattro, Microsoft Works, Clarisworks, Microsoft Excel, Lotus 123*
- database; e.g., *Paradox, Microsoft Works, Filemaker, Clarisworks, Microsoft Access*
- desktop publishing; e.g., *Corel WordPerfect, Microsoft Works, Clarisworks, Microsoft Word, Lotus WordPro, Microsoft Publisher*

Unit 5, Activity 1: Information Technology Careers Scrapbook

Time: 240 minutes

Description

Over a period of ten weeks, students will assemble a scrapbook consisting of ten different information technology job advertisements. For each position advertised, students will be required to identify, based on the job advertisement, the skills and knowledge required, the educational background and/or experience required, and the approximate salary/compensation offered. At the end of the activity, groups will create a chart that summarizes, from the job advertisements collected, how often specific skills, knowledge, and background required by employers appeared. Students will also assess their own abilities against those required in the advertisements. In small groups, students will present these findings to the class.

Strand(s) and Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Career Opportunities

Overall Expectations: IMV.01❖, COV.01❖, COV.02❖

Specific Expectations: IM1.01❖, IM1.03, CO1.01-.04❖, CO2.01-.04❖, CO2.05

Activity Instructions

Planning Notes

Note: This activity should begin early in the course and be repeated on a continuous basis. It is designed in such a way that it can be used as warm-up activity once a week.

Teachers should

- begin this activity 11 to 13 weeks prior to the end of the course to ensure that students have developed background knowledge about information technology.
- start a *Job Advertisement Treasure Chest* by obtaining copies for the classroom of a variety of different magazines and newspapers that contain appropriate information technology job advertisements; add to the collection on a weekly basis so that students have resources available at school.
- prepare all handouts prior to beginning activity.
- prepare a summative evaluation that makes provisions for a variety of learning styles.

Prior Knowledge Required

- refer to *Prior Knowledge Required, p. 5-1*
- knowledge of brainstorming, *Think/Pair/Square* co-operative learning strategies, ability to work in small groups and an understanding of group presentation skills (*Oral Presentation Rubric, Appendix - Generic Forms*) are essential
- word processing skills (*Unit 2, Activity 1*)

Teaching/Learning Strategies

- individual reading/comprehension, analysing, thinking/inquiring, large group discussion, small group work and research, small group presentations, individual written work, *Skills and Competencies Checklist (Unit 5, Appendix A)*

Unit 5, Activity 1: Information Technology Careers Scrapbook

Instructions

1. Facilitate a class discussion about information technology careers. Discuss what classifies a position as an information technology career.
2. Distribute a copy of the *Information Technology Careers Scrapbook Assignment Grading Sheet* below to each student. Explain that, over the next 10 weeks, students will be required to obtain one information technology job advertisement per week. These will be compiled into a booklet, with specific information required about each one (source, date, skills/knowledge/background required, salary/compensation). Students should select only job advertisements that contain this information. Notify students that magazines and newspapers will be available in the classroom from which they can select advertisements. If access to the Internet is available, they may be given the opportunity to search electronically. Using the *Information Technology Careers Scrapbook Assignment Grading Sheet* below as a guide, inform students of all expectations and requirements of the assignment, and address any difficulties they express.
3. Once a week, on a predetermined day, allow students 15 to 20 minutes to peruse resources (e.g., newspapers, magazines, Internet) to obtain job advertisements. At that time, students should record summary information for each article (e.g., source, date, skills/knowledge/background required).
4. At the end of the tenth week, show students how to summarize their advertisements on the *Assignment Grading Sheet* below.
5. Assemble students into small groups. Each group will summarize the information from each individual's research into one chart. Each group will plan a presentation, using an appropriate medium that will convey the results of their group chart to the class. Refer to the *Oral Presentation Rubric (Appendix – Generic Forms)* and/or *Electronic Presentation Rubric (Unit 3, Appendix B)* for criteria.

Sample I/T Careers Scrapbook Summary Chart

<i>Skill, Knowledge, or Background Requirement</i>	<i>Frequency of Employers Who Require It</i>	<i>Self-Assessment</i>	<i>Steps to Take to Obtain/Improve It</i>
Excellent interpersonal skills	✓✓✓✓✓✓✓✓	I have good interpersonal skills.	I can improve through practice and feedback.
Word processing skills	✓✓✓✓✓✓✓✓✓✓	I have good word processing skills.	I can learn advanced functions by taking more courses.
3-years related experience	✓	I have no experience.	I can take on a summer job when I am old enough.
Certificate in LAN administration	✓	I do not have a LAN certificate.	I can attend college after I complete high school.
Good Communication skills	✓✓✓✓	I have good communication skills.	I can improve through practice and feedback.
Data entry/keyboarding skills	✓✓✓	I can key at 32 w.p.m.	I can practise to increase my speed and accuracy.

6. Students will evaluate the presentations using a peer-evaluation form (*Appendix - Generic Forms*).
7. Individuals submit their scrapbooks and the *Information Technology Careers Scrapbook Assignment Grading Sheet* to the teacher for evaluation. After the evaluation is complete, a student/teacher conference will take place to discuss the student's work, self-assessment, and steps for improvement.
8. Students will update their *Skills and Competencies Checklist* and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 5, Appendix A* as a guide.
9. Students will complete their *Reference Manual of Information Technology Terminology (Unit 1, Appendix A, Activity 1)* using *Unit 5, Appendix A* as a guide.

Unit 5, Activity 1: Information Technology Careers Scrapbook

INFORMATION TECHNOLOGY CAREERS SCRAPBOOK ASSIGNMENT GRADING SHEET

NAME: _____

PLEASE PLACE THIS SHEET IN YOUR SCRAPBOOK AND SUBMIT WITH YOUR COMPLETED ASSIGNMENT.

COMPONENT	EXPECTATIONS	MARK
TITLE PAGE	<input type="checkbox"/> name, the date, and title of the assignment	/5
	<input type="checkbox"/> creativity	
ORGANIZATION	<input type="checkbox"/> neatness	/10
	<input type="checkbox"/> logical organization of information	
	<input type="checkbox"/> must be in a Duotang or a workbook	
	<input type="checkbox"/> advertisements must be glued in so that they do not fall out of your book	
SUMMARY	<input type="checkbox"/> required information to be written on the same page as the advertisements	/15
	<input type="checkbox"/> chart that lists all the skills, knowledge, and background that employers require and the frequency with which this appears in your sample of advertisements	
	<input type="checkbox"/> comparison of your skills, knowledge, and background to the sample steps you can take to improve your skills, knowledge, and background	

ADVERTISEMENT	Appropriate Job Chosen	Name of Source & Date Included	Skills Written Down	Education/ Experience Written Down	Salary/ Compensation Written Down	MARK
JOB #1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/5
JOB #2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/5
JOB #3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/5
JOB #4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/5
JOB #5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/5
JOB #6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/5
JOB #7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/5
JOB #8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/5
JOB #9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/5
JOB #10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/5
TOTAL MARK						/80

Assessment/Evaluation Techniques

- peer assessment of group research results presentation (*Peer Evaluation Sheet, Appendix - Generic Forms*)
- summative assessment of individual summary report
- *Reference Manual of Information Technology Terminology*
- diagnostic assessment using the *Skills and Competencies Checklist*
- *Unit 5 Assessment Rubric*

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in the *Course Overview*
- assemble groups to ensure stronger students are able to assist weaker students

Unit 5, Activity 1: Information Technology Careers Scrapbook

- allow alternative methods of evaluation instead of requiring written responses only
- provide students with worksheets for their *Information Technology Careers Scrapbook Summary Charts*

Resources

- Bolles, Richard Nelson. *What Colour is Your Parachute: A Practical Manual for Job Hunters and Career Changers*. Berkeley, CA, Ten Speed Press, 1995.
- JIST Staff. *Quick Internet Guide for Careers & Labour Market Information*. JIST Works Incorporated, 1997.
- Lindsay, Norene. *Pathfinder - Exploring Career & Educational Paths: Career and Education Planning for Junior and High School Students*. JIST Works Incorporated, 1997.
- Ontario Ministry of Education and Training and Human Resources Canada (Ontario Region). *Ontario Job Futures*. Toronto, 1997.
- Shields, Nancy E. *Dictionary of Occupational Terms: A Guide to the Special Language and Jargon of Hundreds of Careers*. JIST Works Incorporated, 1993.
- Wortzel, Richard. *The Next Twenty Years of Your Life*. Toronto: Stoddart Publishing Company Ltd., 1997.
- Magazines such as *Economics* and *INFO World*

Internet Web Sites

The Toronto Star Careers Section: http://www.thestar.ca/thestar/classified/careers.html Globe and Mail Careers Section: http://www.globecareers.com/ Southam Newspapers Careers Section: http://www.careerclick.com Canadian Computing Careers - BIS Careers/Employment: http://bisinc.com/careers/index.html HTC - Canada's High-Tech Career Journal: http://209.50.65.22:84/htcjournal Canada Career Consortium: http://www.careerccc.org/
--

Appendices

- *Information Technology Terminology Checklist*
- *Skills and Competencies Checklist*
- *Unit 5 Assessment Rubric*

Unit 5, Activity 2: A Pathway to Jobs on the Internet

Time: 180 minutes

Description

This is an Internet-based activity in which students will access a variety of web sites, some teacher directed and others identified using search engines, related to locating job advertisements/postings. Students will follow a paper pathway from one site to another. At each site, they will seek answers to specific questions. Each answer is worth a specific number of points (which will translate into marks). At the end of the path, students will use appropriate software to produce a suitable desktop-published document that will provide Internet assistance for a job hunter.

Strand(s) and Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Software Applications, Electronic Research and Ethical Issues, Career Opportunities

Overall Expectations: IMV.01❖, IMV.04, SAV.01-03, ERV.01❖, COV.01❖

Specific Expectations: IM1.01❖, IM4.02, SA1.01-.03, SA2.03, SA3.01-.03❖, ER1.01❖, ER1.03-.04❖, ER1.05, CO1.03❖

Activity Instructions

Planning Notes

Note: This activity requires Internet access. If Internet access is limited, students may rotate through this activity throughout the course. The final desktop-published product should be prepared after students have completed the desktop publishing activities (*Unit 2, Activity 3*).

Teachers should

- prepare all handouts prior to beginning activity.
- prepare a summative evaluation that makes provisions for a variety of learning styles.
- discuss the precautions one should take if responding to a job on the Internet. Include: giving the contact name and number to someone, have someone wait in the lobby, take a cellular phone with you, call in advance to verify job vacancy and interviewer. Refer to *Rules of Riding on the E-mail Road (Unit 3, Activity 2)*.

Prior Knowledge Required

- Internet search, word processing, and desktop publishing skills

Teaching/Learning Strategies

Note: This is a self-directed unit that can be completed at any point in the course after *Unit 2, Activity 3*. The initial *Pathway to Jobs on the Internet* may be completed in pairs, but the end product should be prepared individually.

Instructions

1. Provide each student with a copy of the *Pathway to Jobs on the Internet* worksheet below that guides students to specific sites in order to investigate online resources related to finding a job. At each site, students will seek answers to specific questions. Students must also locate sites based on the results of an Internet search.
2. Distribute a copy of the marking scheme below called *Pathways to Jobs on the Internet, Self-Evaluation*. Students will complete a self-evaluation of the completeness and accuracy of their responses on the *Pathways* worksheet.
3. Students should record the answers to their questions to assist in the preparation of their final product.
4. Distribute the instructions and the marking scheme for the desktop-published final product (*Unit 5, Appendix B*). Review this with the students.

Unit 5, Activity 2: A Pathway to Jobs on the Internet

5. The desktop-published final product should be stored in an appropriately named location (folder, directory).
6. Students will update their *Skills and Competencies Checklist* and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 5, Appendix A* as a guide.
7. Students will complete their *Reference Manual of Information Technology Terminology* (*Unit 1, Appendix A, Activity 1*) using *Unit 5, Appendix A* as a guide.

Pathways to Jobs on the Internet - Worksheet

Access the Internet according to your teacher's instructions. Follow the specific instructions for each question and record your answers. Your marks for each answer are recorded at the end of each question.

1. Access www.globecareers.com.
With what Canadian newspaper is this site associated? (1)
Click on the "Your Job List" link. What is the purpose of this area? (2)
Identify something on this site that you could use. Explain how you would use it and why.(6)
2. Access www.canjobs.com. Search in the province of Ontario for Information Technology careers.
Identify three companies hiring in the area of information technology. (3)
Describe the jobs and the starting salary. (3)
3. Access www.canadiancareers.com. Look under Current Job Postings and Search Jobs by Keyword.
Who is hiring in the area of Information Technology? (2)
What is the job? Starting salary? (3)
How do you apply for these jobs? (1)
4. Access jobs.gc.ca.
Describe the information on student employment. (3)
5. Access canada.careermosaic.com. Access the CampusConnection.
What information in this area would be useful to a job candidate prior to an interview? (3)
Describe Ontario Hydro as an employer? (2)
6. Access jb-ge.hrdc-drhc.gc.ca. Search for a job posted in the last 48 hours in the Hamilton area.
Is anyone hiring in the area of Information Technology? Who? (2)
What is the job title and description? (2)
Is there a job you would like to apply for? What are the qualifications? What experience is required? (3)
7. Identify 3 additional web sites that would be of assistance when looking for a job. How would you use each of the sites? (6)

Assessment and Evaluation Techniques

- summative, formative, diagnostic
- *Pathway to Jobs on the Internet* - Self-evaluation
- desktop-published document (summative assessment) - Marking Scheme
- *Reference Manual of Information Technology Terminology*
- diagnostic assessment using the *Skills and Competencies Checklist*
- *Data Entry Skills Rubric* (*Unit 1, Appendix A*)
- *Unit 5 Assessment Rubric*

Unit 5, Activity 2: A Pathway to Jobs on the Internet

Pathways to Jobs on the Internet *Self-Evaluation*

Review your responses to each question on the *Pathways to Jobs on the Internet* worksheet. For each question, assign a numerical mark based on your own assessment of the completeness and accuracy of your answer. The total possible marks for each question are identified in brackets after the question.

Site Number	Marks		
1	/ 1	/ 2	/ 6
2	/ 3	/ 3	
3	/ 2	/ 3	/ 1
4	/ 3		
5	/ 3	/ 2	
6	/ 2	/ 2	/ 3
7	/ 6		

Total / 42

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in *Course Overview*
- complete the Internet search in pairs (*Pathways to Jobs on the Internet*) if computer use is limited
- modify the end-product summary to include fewer sites (e.g., 3 or 4 sites used for the product instead of 7)
- establish flexible timelines
- allow alternative methods of evaluation instead of requiring written responses only
- encourage the use of software wizards and templates
- allow opportunities to edit and resubmit

Resources

Internet Web Sites

Globe and Mail - Canada's National Career Site: www.globecareers.com
Canada Employment Search Network: www.canjobs.com
Canadian Career Page: www.canadiancareers.com
Public Service Commission of Canada – Recruitment: http://jobs.gc.ca/home_e.htm
Career Mosaic Canada: <http://canada.careermosaic.com/>
Work Web - Canada's Online Campus Career Centre: www.cacee.com/edandempl/educempl.html
Toronto Star Careers: www.thestar.com/thestar/classified/plmonster.html
The New canadajobs.com from The Job Bus Canada: www.canadajobs.com/canadian.htm
Canadian Information Technology Jobs: www.positionwatch.com
Canada WorkinfoNet: www.workinfo.net.ca/cwn/english/main.html
University of Waterloo Career Development Manual: www.adm.uwaterloo.ca/infocecs/CRC/manual/introduction.html
YouthWorks Career Quest: www.youthworks.ca
Youth Resource Network of Canada: www.youth.gc.ca/menu_e.shtml
Human Resources Development Canada: [www.hrdc-drhc.gc.ca/career-carriere/index_e.shtml](http://hrdc-drhc.gc.ca/career-carriere/index_e.shtml)
<http://hrdc-drhc.gc.ca/common/home.shtml>
Canadian Jobs Catalogue: www.kenevacorp.mb.ca
Ministry of Education and Training - Career Gateway: www.edu.gov.on.ca/eng/career/

Appendices

- *Using the Web to Find a Job*
- *Unit 5 Assessment Rubric*

Unit 5, Activity 3: My Personal Portfolio

Time: 480 minutes

Description

Throughout the course, students will maintain an ongoing collection of exemplary work that clearly demonstrates their information technology growth, skills, and competencies. The documents in the portfolio will be linked to *Software Competencies Checklists* and software rubrics. Students will determine their own level of achievement based upon documents produced. Plans for improvement will be generated jointly by the student and teacher.

Strand(s) and Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Career Opportunities

Overall Expectations: COV.02❖

Specific Expectations: CO2.01-.05❖

Activity Instructions

Planning Notes

Note: This activity begins during the first week of the course and continues throughout because students need to assess their information technology skills and competencies on a regular basis.

Teachers should

- obtain materials to create the physical portfolio (e.g., scissors, glue, markers, Bristol board, folders, magazines).
- provide one copy of the *Information Technology Portfolio Planning Sheet* below for each student.
- provide one *Portfolio Rubric* for each student.
- evaluate the portfolio on an ongoing basis throughout the course.

Prior Knowledge Required

- word processing skills

Teaching/Learning Strategies

Note: The purpose of the portfolio is to provide each student with a record of his/her progress in terms of information technology skills development and the actual production of work. This is also where the students will keep their best examples of skill development in the form of completed work.

- reading/comprehension, analysing, constructing/creating, student/teacher consultation, assessing, responding, writing, reflecting, presenting, collecting, thinking/inquiring

Instructions

1. The teacher should bring a collection of related items (e.g., stamps, cards, key chains) to class. Discuss why these items are a personal collection with meaning for the owner, what the particular collection communicates about the owner, and what students themselves collect.
2. Discuss the idea of a collection of work that is organized and summarized. Pose the questions: Why would you want a collection of work? What would you like your work to communicate about you? Discuss how a collection of work can be called a portfolio. Discuss how the portfolio may be used in a job interview situation.

Unit 5, Activity 3: My Personal Portfolio

3. Each student should receive one copy of the *Information Technology Portfolio Planning Sheet* below that outlines what will be included in the portfolio and how the portfolio will be prepared. Explain how the portfolio will be updated on a regular basis.

Information Technology Portfolio Planning Sheet

Items for Inclusion

- a tool to store the documents
- a cover page identifying the owner (be creative in the design)
- word processing competencies checklist
- spreadsheet competencies checklist
- database competencies checklist
- desktop publishing competencies checklist
- oral and electronic presentation rubrics
- software applications rubric
- portfolio rubric
- other information technology skills and competencies checklists
- samples of exemplary work demonstrating software competencies
- electronic summary of information technology skills and competencies

What to Do With the Portfolio

- A. Create a cover page that represents you.
- B. Each competency checklist should be followed by documents you have created. The documents must demonstrate the competencies you have checked. Try to include items you have produced for other courses.
- C. For each document, use the associated rubric to assign a level.
- D. For each document, key an analysis of the item. Include strengths, weaknesses, and plans for growth/ improvement. Attach this to the document.
- E. Add to the portfolio on a regular basis.
- F. Update the checklists with acquired skills and competencies.

4. Distribute and discuss the *Word Processing Software Competencies Checklist (Unit 2, Appendix A)* and the *Software Applications Rubric (Unit 2, Appendix F)*. Explain how these will be used in the portfolio.

- ***Software Competencies Checklist*** - Each checklist will be followed by exemplary work samples that will have the competencies labelled. Students will check each competency supported by a document.
- ***Software Applications Rubric*** - Each document in the portfolio will be assigned a corresponding level based upon the rubric. Strategies for improvement will be keyed and attached to the back of the document of exemplary work.

5. Explain that checklists and rubrics will be available for software and information technology skills and competencies.
6. Distribute copies of the *Portfolio Rubric* below that will be used to evaluate the portfolio. Portfolios will be collected two to three times during the course.
7. Students will create their personalized portfolio. The form may include a binder, folder with pockets, folder with clips, etc. Provide supplies for students to create the portfolio and personalize the first page.
8. Students will maintain the portfolio on an ongoing basis. Encourage students to transfer their information technology competencies to other subject areas and include those items in their portfolio.
9. Prior to submitting the portfolio near the end of the course, students should prepare an electronic summary of their skills and competencies. Students may decide on the form for the summary (e.g., electronic portfolio on disk, chart, table, graphic display). This will be included in the portfolio.

Unit 5, Activity 3: My Personal Portfolio

Portfolio Rubric

Categories	Level 1	Level 2	Level 3	Level 4
<p>Knowledge/Understanding demonstrates a knowledge of terminology</p> <p>identifies features and functions of software</p>	<p>The student demonstrates limited knowledge of terminology</p> <p>demonstrates limited knowledge of software features and functions</p>	<p>demonstrates some knowledge of terminology</p> <p>demonstrates some knowledge of software features and functions</p>	<p>demonstrates considerable knowledge of terminology</p> <p>demonstrates considerable knowledge of software features and functions</p>	<p>demonstrates thorough knowledge of terminology</p> <p>demonstrates thorough knowledge of software features and functions</p>
Completeness	<p>The student includes 4 to 6 student-produced items cover page competency checklists software rubrics electronic summary</p>	<p>7 to 9 student-produced items cover page competency checklists software rubrics electronic summary</p>	<p>10 student-produced items cover page competency checklists software rubrics electronic summary</p>	<p>over 10 student-produced items cover page competency checklists software rubrics electronic summary</p>
<p>Thinking/Inquiry demonstrates use of inquiry skills</p> <p>analyses personal strengths and weaknesses</p>	<p>The student demonstrates limited inquiry skills</p> <p>demonstrates limited analysis of strengths and weaknesses</p>	<p>demonstrates some inquiry skills</p> <p>demonstrates some analysis of strengths and weaknesses</p>	<p>demonstrates considerable inquiry skills</p> <p>demonstrates considerable analysis of strengths and weaknesses</p>	<p>demonstrates high degree of inquiry skills</p> <p>demonstrates thorough analysis of strengths and weaknesses</p>
<p>uses strategies for improvement</p>	<p>limited application of strategies for improvement</p>	<p>occasional application of strategies for improvement</p>	<p>consistently applies strategies for improvement</p>	<p>thoroughly applies strategies for improvement</p>
Neatness and Organization	<p>The student demonstrates limited neatness demonstrates limited organization</p>	<p>demonstrates some neatness demonstrates some organization</p>	<p>demonstrates considerable neatness demonstrates considerable organization</p>	<p>demonstrates exceptional neatness demonstrates exceptional organization</p>
<p>Application applies skills and competencies in other subject areas</p> <p>chooses appropriate tools for products</p>	<p>The student transfers skills and competencies to new contexts with limited effectiveness</p> <p>uses appropriate technology with limited effectiveness</p>	<p>transfers skills and competencies to new contexts with moderate effectiveness</p> <p>uses appropriate technology with moderate effectiveness</p>	<p>transfers skills and competencies to new contexts with considerable effectiveness</p> <p>uses appropriate technology with considerable effectiveness</p>	<p>transfers skills and competencies to new contexts with high degree of effectiveness</p> <p>uses appropriate technology with high degree of effectiveness</p>

Unit 5, Activity 3: My Personal Portfolio

Assessment and Evaluation

- *Portfolio Rubric* - two to three times during the course
- Anecdotal comments on samples of exemplary work contained in the portfolio
- Anecdotal comments on strategies for improvement

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in *Course Overview*
- establish flexible timelines
- assist students in preparing and reviewing documents placed in portfolio by pairing them
- allow opportunities to edit and resubmit
- allow alternative methods of evaluation instead of requiring written responses only

Resources

- *The Ontario Curriculum, Grades 9 and 10: Business Studies, 1999, Achievement Chart, pp. 24-25*

Internet Web Sites

Portfolio Assessment: www.eduplace.com/rdg/res/literacy/assess6.htm
How Portfolios Help Students: www.pepe.org/infoseries/portfolios.htm
Multiple Intelligences and Portfolios: <http://ericae.net/ericdb/ED416209.htm>
Portfolio Introduction: www.business1.com/iri_sky/StuPort/stpi.htm

Appendices

Unit 5 Assessment Rubric

Unit 5, Activity 4: Investigating Information Technology Programs in Your School

Time: 180 minutes

Description

Students will explore the information technology options in their school by interviewing an information technology, computer, or guidance teacher. Using their desktop publishing skills, students will generate a professional article based on the information received during the interview. These articles will be compiled into a class magazine. At the end of the activity, students will work with the teacher on an individual basis to revise their information technology growth plans based on this newly acquired information.

Strand(s) and Expectations

❖ *expectation(s) evaluated in unit*

Strand(s): Information Management, Software Applications, Career Opportunities

Overall Expectations: IMV.01❖, SAV.03❖, COV.01❖, COV.02❖, COV.03❖

Specific Expectations: SA3.01-.02❖, CO2.01-.04❖, CO2.05, CO3.01-.03❖

Activity Instructions

Planning Notes

Note: This activity should take place following *Unit 5, Activity 1* so students have had an opportunity to learn about the skills, knowledge, and education required for various information technology careers.

Teachers should

- ensure students will have access to computer workstations.
- organize groups for this activity in advance, determining how many groups will exist in total.
- make arrangements with teachers in the school well in advance of this activity to ensure they are available and willing to participate.
- prepare all handouts prior to beginning activity.
- prepare a summative evaluation that makes provisions for a variety of learning styles
- have samples of interview articles from the school paper, local newspaper, and various magazines available for students to peruse.
- obtain copies, for the classroom, of brochures and course descriptions for technology courses/programs available at the school or other schools within the district that students can use as reference.

Prior Knowledge Required

- refer to *Prior Knowledge Required, p. 5-1*
- knowledge of brainstorming, the ability to work in small groups, conflict management strategies, and an understanding of group presentation skills (*Course Overview*) are essential
- ability to formulate a plan for an oral interview and record information obtained during the interview
- apply word processing and desktop publishing skills (*Unit 2, Activity 1 and Activity 3*)

Teaching/Learning Strategies

- brainstorming, expert interview, individual, small group work, whole class, *Skills and Competencies Checklists*

Instructions

1. As a class, brainstorm requirements for careers in information technology, drawing on information learned in *Unit 5, Activity 1*.

Unit 5, Activity 4: Investigating Information Technology Programs in Your School

2. Facilitate a class discussion on how students can obtain the skills employers require. Focus the discussion on the education required.
3. Facilitate a second brainstorming activity where students generate a list of possible places where an education in information technology can be obtained while they are attending secondary school (e.g., courses, volunteering, co-op placement).
4. In small groups, students will be required to interview an information technology, computer, or guidance teacher within the school to gather information about information technology programs available at the school. The results of the interview will be written in the form of an article, and compiled into a class magazine.
5. As a class, brainstorm the types of information that the article should contain. The list should include the name and title of the teacher being interviewed, the teacher's background, that teacher's ideas about information technology, information technology courses or programs delivered by that teacher, information technology courses or programs offered in the school, prerequisites for those courses, details about each course (e.g., course description, topics covered, grade level, etc.), skills that the teacher feels are necessary to succeed in the courses, and future prospects that those courses offer. Students may also use a digital or traditional camera to take a photograph of the interviewee for the final product. Students should obtain the interviewee's permission to have the photograph and results published in a class catalogue.
6. As a class, generate a process to be followed by the groups in completing this exercise. Ensure the following things are included in the lists: perform background research (e.g., identify a teacher, get some information about courses); schedule an appointment with the interviewee; prepare a detailed list of questions (to be reviewed by the teacher in a group/teacher conference prior to the interview); determine roles to be played by each member (e.g., photographer, scribes, interviewer); interview the teacher; compile the information into an article with a beginning, middle, and end; produce a quality article applying their word processing and desktop publishing skills. Note: Articles from the school paper, local newspaper, and various magazines, available in the classroom for students to use as references, will be helpful.
7. Students are assembled into groups and given class time, with the teacher's input, to prepare for the interview. Through a group/teacher conference, the teacher must approve the questions to be asked during the interview before the interview takes place.
8. After completing the interview, each group will prepare a professional article, authored by all group members, which will be submitted to the teacher for suggested revisions. After revising, each group will produce the final copy of its article. As a class, students will compile the articles into a booklet or magazine. This booklet or magazine will be reproduced and distributed to students for future reference (consider electronic format to save paper and resources).
9. Students will update their *Skills and Competencies Checklist* and portfolios or personal folders (*Unit 1, Appendix A, Activity 2*) using *Unit 5, Appendix A* as a guide.
10. Students will complete their *Reference Manual of Information Technology Terminology* (*Unit 1, Appendix A, Activity 1*) using *Unit 5, Appendix A* as a guide.

Assessment/Evaluation Techniques

- formative assessment and approval of interview questions
- summative assessment and group/teacher conference of final product
- diagnostic assessment - individual student/teacher conference to update each student's personal growth plan
- *Reference Manual of Information Technology Terminology*
- *Skills and Competencies Checklist*
- *Unit 5 Assessment Rubric*

Unit 5, Activity 4: Investigating Information Technology Programs in Your School

Accommodations (For Students with Special Needs)

- refer to *Special Education* and *ESL Accommodations* in the *Course Overview*
- assemble groups to ensure stronger students are able to assist weaker students
- provide students with lists of questions for their interviews
- allow alternative methods of evaluation instead of requiring written responses only
- provide students with an electronic template that includes layout and a series of questions in which to input their interview results

Resources

- Franchetti, Richard F. *How to Prepare for a Career in Business: Tips Students Can Use Today for a Successful Business Career Tomorrow*. Portrait Press, 1995.
- Lindsay, Norene. *Pathfinder - Exploring Career & Educational Paths: Career and Education Planning for Junior and High School Students*. JIST Works Incorporated, 1997.
- Rowe, Fred A. *The Career Connection for Technical Training and Related Career Opportunities*. JIST Works Incorporated, 1994.
- brochures for information technology programs within your school
- assorted brochures for information technology educational programs within your community

Internet Web Sites

<p>HTC - Canada's High-Tech Career Journal: http://209.50.65.22:84/htcjournal Canada Career Consortium: http://www.careerccc.org/ Add your school's web address</p>

Appendices

- *Information Technology Terminology Checklist*
- *Skills and Competencies Checklist*
- *Unit 5 Assessment Rubric*

Unit 5, Assessment Rubric

Unit 5 Assessment Rubric

Categories	Level 1	Level 2	Level 3	Level 4
Knowledge/ Understanding	<ul style="list-style-type: none"> • understanding of concepts, principles and theories • understanding of relationships between concepts 			
understands terminology	demonstrates limited understanding of terminology	demonstrates some understanding of terminology	demonstrates considerable understanding of terminology	demonstrates thorough understanding of terminology
locates information through research	demonstrates limited ability to locate information	demonstrates some ability to locate information	demonstrates considerable ability to locate information	demonstrates outstanding ability to locate information

Categories	Level 1	Level 2	Level 3	Level 4
Thinking/Inquiry	<ul style="list-style-type: none"> • creative and critical thinking skills • inquiry skills 			
summarizes and interprets information from job advertisements to indicate frequency of employer requirements	demonstrates limited ability to summarize and interpret information	demonstrates some ability to summarize and interpret information	demonstrates considerable ability to summarize and interpret information	demonstrates outstanding ability to summarize and interpret information
analyses personal strengths, weaknesses, and plans for growth through portfolio assessment	demonstrates limited ability to analyse personal strengths, weaknesses, and plans for growth	demonstrates some ability to analyse personal strengths, weaknesses, and plans for growth	demonstrates considerable ability to analyse personal strengths, weaknesses, and plans for growth	demonstrates outstanding ability to analyse personal strengths, weaknesses, and plans for growth

Categories	Level 1	Level 2	Level 3	Level 4
Communication	<ul style="list-style-type: none"> • communication of information and ideas • communication for different audiences and purposes • use of various forms of communication 			
presents research findings to class	presents research with limited clarity	presents research with some clarity	presents research with considerable clarity	presents research with high degree of clarity
prepares for and interviews staff member	prepares for and interviews staff member with limited effectiveness	prepares for and interviews staff member with some effectiveness	prepares for and interviews staff member with considerable effectiveness	prepares for and interviews staff member with high degree of effectiveness
creates newsletter article with style and accuracy	creates newsletter article with limited style and accuracy	creates newsletter article with some style and accuracy	creates newsletter article with considerable style and accuracy	creates newsletter article with a high degree of style and accuracy

Categories	Level 1	Level 2	Level 3	Level 4
Application	<ul style="list-style-type: none"> • transfer of concepts, skills, and procedures to new contexts • use and application of equipment, materials, and technology 			
uses technology to create a variety of documents	applies technology with limited effectiveness	applies technology with some effectiveness	applies technology with considerable effectiveness	applies technology with high degree of effectiveness

Activity 1: Information Technology Careers Scrapbook

- locate job advertisements in the newspaper, magazines, and on the Internet
- identify information technology jobs
- identify skills/knowledge/background and salary/compensation required for specific positions from advertisements
- summarize information into charts
- identify personal strengths and weaknesses as they relate to skills employers seek
- identify steps the individual can take to improve his/her employability skills
- make a presentation before the class

Activity 2: Pathway to Jobs on the Internet

- locate jobs on the Internet based on specific criteria
- identify job characteristics from advertisements
- identify ways in which one can apply for jobs listed on the Internet
- explain safety precautions associated with applying for jobs on the Internet
- research and describe the employers of jobs on the Internet
- locate web sites that provide job listings

Activity 4: Investigating Information Technology Programs in Your School

- create a step-by-step plan for an interview
- generate a reasonable list of interview questions
- interview a professional
- create a professional, well-written, and attractive feature article
- identify personal information technology strengths and weaknesses
- identify ways to overcome personal information technology weaknesses

Reference Manual of Information Technology Terminology Checklist

Activity 1: Information Technology Careers Scrapbook

Students should generate an original list of job advertisement terminology as they collect and assess job advertisements.

Activity 2: Pathway to Jobs on the Internet

Students should generate an original list of job advertisement terminology as they peruse job listings.

Activity 4: Investigating Information Technology Programs in Your School

Students should generate an original list of job advertisement terminology as they research programs and administer interviews.

Newsletter Date



Using The Web To Find A Job

General Instructions

After completing the *Pathways to Jobs on the Internet* worksheet and the self-evaluation, you are going to use the information obtained to desktop publish a reference guide entitled *Using The Web To Find A Job*. The guide will:

- direct the reader to web sites related to finding a job.
- identify each URL and explain the use of each site.
- include your assessment of the usefulness of the site.
- include a section entitled *Top 10 Tips When Using the Internet to Find A Job*.

Based upon your work, create 10 tips that you believe will be

of value to someone using the Internet to find a job. You will select the format of the desktop published item. Possible ideas include a newsletter, brochure, flyer, article, etc.



Special Points of Interest

- ✓ take detailed notes as you complete the worksheet
- ✓ evaluate each site according to class accepted practice (*Unit 4, Activity 2*)

Marking Scheme

Content	/10
Design (include items from <i>Desktop Publishing Features to Include</i>)	/20
Format for Citing Web sites	/5
Evidence <i>Pathways</i> worksheet complete	/5
Each site evaluated according to class criteria	/5
Creativity	/5
Total Marks	/50

Desktop Publishing Features to Include

The following must be included:

- borders
- clip art
- columns
- colour
- fonts (styles and sizes)
- header and footer
- shading
- text alignment (left, right, centre, justify)
- text formatting (bold, underline, italics)
- textbox
- WordArt
- other creative tools as decided by the student

