Introduction to Information Technology in Business

BTT 10/20

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Getting Ready to Read: Analyzing the Features of a Text

Introduction to Information Technology In Business

There's more to a good book or Website than the words. A well-designed textbook uses a variety of graphical and text features to organize the main ideas, illustrate key concepts, highlight important details, and point to supporting information. When features recur in predictable patterns, they help the reader find information and make connections. Readers who understand how to use these features spend less time unlocking the text, and have more energy to concentrate on the content.

In this strategy, students go beyond previewing to examine and analyze a textbook and determine how the features will help them to find and use information for learning. You can use the same strategy to deconstruct other types of text – magazines, e-zines, newspapers, e-learning modules, and more.

Purpose
- Familiarize students with the main features of texts they will be using in the classroom, so that they can find and use information more efficiently.
- Identify patterns in longer texts.
- Create a template that describes the main feature of the texts, and post it in the classroom so that students can refer to it.

Payoff
Students will:
- develop strategies for effectively locating information in texts.
- become familiar with the main features of texts they will be using.

Tips and Resources
- Text features may include headings, subheadings, table of contents, index, glossary, preface, paragraphs separated by spacing, bulleted lists, sidebars, footnotes, illustrations, pictures, diagrams, charts, graphs, captions, italicized or bolded words and passages, colour and symbols.
- See Student/Teacher Resource, *How to Read a Business Textbook.*
- Textbook relevant to BTT 1O/2O such as *InsighTs: Succeeding in the Information Age* (Irwin, 2000 distributed by Nelson).

Further Support
- Provide students with an advance organizer to guide them as they read a particular text. This organizer might be a series of prompts that ask the students to preview particular features of text and note how they are related to the main body of the text.
- Teach students the SQ4R strategy (Survey, Question, Read, Recite, Review, Reflect). For example, **survey** the title, headings, subheadings, maps, pictures, sidebars, bold or italic print, etc. Turn the title, headings, and captions into **questions**. Read the passage to answer questions. **Recite** the answers to their questions and summarize the passage. **Review** the passage to remember the main idea and important information and details. **Reflect** on the passage and the process to check that they understand the text, and to generate additional questions.
- Model for students how to use the features of computer software and Internet Websites to help them navigate and read the program or site (e.g., URLs, pop-up menus, text boxes, buttons, symbols, arrows, links, colour, navigation bar, home page, bookmarks, graphics, abbreviations, logos).

Getting Ready to Read: Analyzing the Features of a Text
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What teachers do	What students do
Before • Ask students to recall a magazine or informational book they recently read, or a Website they recently viewed. Ask them to describe how they found information. Ask students what they remember about the content, and have them suggest possible reasons for how they were able to locate and/or remember information. • Select a chapter from the textbook used in your class. Ensure every student has a copy. • Organize students into groups of 3 to 5. Assign two different sequential chapters or sections to each group. • Ask groups to scan the assigned chapter and note features of the text that are similar between chapters in that book, as well as unique to that particular chapter. Groups record their findings on chart paper (e.g., point form, Venn diagram, or compare/contrast). • Ask each group to send an "ambassador" to other groups to share one thing the group discovered, trading it for one thing the other group discovered. Ambassadors return to their original group and report.	• Recall something recently read or viewed and identify some features of the text. • Note similarities and difference among responses from other students. • Make connections between what they remember and features of the text. • Quickly scan chapters and note features of the text. • Contribute to group discussion and chapter notes. • Share findings with other groups, noting such things as chapter previews/introductions, tables of contents, graphic/visual organizers, marginalia, chapter reviews, summaries, headings, and so on.
During • Remind students that textbooks have many different elements and features designed to help students learn the materials being presented. Some textbooks have a greater variety of features and elements than others. • Ask each group to report about the features of their text. • Create a textbook or chapter template on chart paper, indicating common features and noting any unique features (see Student/Teacher Resource, *How to Read a Business Textbook*) and have students complete it.	 • Share the group's findings. • Contribute the template that the class develops and complete it for the textbook used in class.
After • Assign a relevant reading task to a small group so that students can practise using the features of the text to locate information, which helps them understand and remember when they read. • Encourage students to use the template to make predictions about where they might find particular information or use features to complete a task. • Discuss how this strategy might help students navigate websites, e-zines, and online media.	• Use the features of the text to complete the reading task assigned. • Note the features that help the reader locate, read, understand, and remember information. • Refer to the template for future reading tasks. • Recall how they have used features of electronic texts to help find and read information.

How to Read a Business Textbook

Textbook title
_____

Author(s)
Publisher and date of
publication
_____
_____

Chapter topics
- what topics are covered in the chapter?

_____
_____
_____
_____

Chapter introduction
- what sort of information does the chapter introduction contain?

_____
_____
_____
_____
_____

Text features
- what features appear in the margins or throughout the text? (hint: check the introduction of the book to see if there is a list)

_____
_____
_____
_____
_____
_____

Chapter sections and subsections
- what sections does the chapter contain?
- how can you recognize sections and subsections?

_____
_____
_____
_____
_____

Italicized or bolded words
- why are some words italicized or?

_____
_____
_____

Visuals
- how are visuals used?

_____
_____
_____
_____

Index and glossary
- how might you use these?

_____
_____
_____
_____
_____

R

Getting Ready to Read: Extending Vocabulary (Creating a Word Wall)
Introduction to Information Technology In Business

Students are required to learn, on average, over 200 words each year in various subject areas. Those who have trouble learning new words will struggle with the increasingly complex texts that they encounter in the middle and senior years. A *word wall* is a wall, chalkboard or bulletin board listing key words that will appear often in a new unit of study, printed on card stock and taped or pinned to the wall/board. The word wall is usually organized alphabetically.

Purpose
- Identify unfamiliar vocabulary and create a visible reference in the classroom for words that will appear often in a topic or unit of study.

Payoff
Students will:
- practise skimming and scanning an assigned reading before dealing with the content in an intensive way.
- develop some sense of the meaning of key words before actually reading the words in context.
- improve comprehension and spelling because key words remain posted in the classroom.

Tips and Resources
- *Skimming* means to read quickly – horizontally – through the text to get a general understanding of the content and usefulness.
- *Scanning* means to read quickly – vertically or diagonally –to find single words, facts, dates, names, or details.
- For directions, see Student Resource, *Skimming and Scanning to Preview Text.*
- Before building the word wall, consider using **Analysing The Features of Text**, to help students become familiar with the text
- Consider posting certain words for longer periods (for example: words that occur frequently in the unit, words that are difficult to spell, and words that students should learn to recognize on sight).
- Have students refer to the word wall to support their understanding and spelling of the words.
- For a sample word wall, see Teacher Resource*, Sample: Internet Word Wall.*
- For more information, see:
  - Student Resource, *Terminology Checklists.*

Words, Words, Words, pp. 70-71.
When Kids Can't Read, What Teachers Can Do, Chapter 10.
Reaching Higher – Making Connections Across the Curriculum, p. 7-8.
Curriculum Unit Planner (Ontario Ministry of Education and Training, June 1999) Teaching /Learning Strategies, Word Wall p. 123).

Further Support
- Add a picture to the word cards (preferably a photograph from a magazine, or from the Internet) as a support for ESL students and struggling readers.
- Provide each student with a recording sheet so that they can make their own record of the key words for further review. See Student Resource, *Terminology Checklists*.
- If it appears that students will need additional support, review the terminology on the word wall in the two classes following this activity, using **Take Five** or **Think/Pair/Share,** which are described in the Oral Communication section.
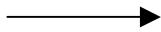
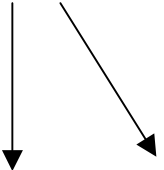## Getting Ready to Read: Extending Vocabulary (Creating a Word Wall)

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What teachers do	What students do
Before • Select appropriate software help functions. • Preview the software help function for the key vocabulary. • Prepare strips of card stock (approximately 4" X 10") for words. • Divide students into groups of three. • Provide stick-on notes, markers, and masking tape or pins for each group of students. • Explain to students that together the class will find key vocabulary in the software help function text, and will help each other to understand and spell the key vocabulary by creating a "word wall' in the classroom that they can refer to for the duration of that particular topic or software computer application. • Distribute the Student Resource, *Terminology Checklists.* • Explain to students that the terminology checklist gives them an opportunity to reflect on the meaning of words and use them appropriately. Encourage students to make notes that will enable them to use, remember and or retell the specific terminology used in information technology. • Distribute Student Resource, *Skimming and Scanning to Preview Text;* read and clarify techniques with students.	• **Group** With their group find a space where they can talk face-to face and make sense of what they read in the help notes. Collect the needed supplies. Then individually return to the computer and follow teacher instructions. • **Individual** Find the specific help function in the application computer software assigned. • Follow along on the handout as the teacher reviews skimming and scanning and point out how this technique helps you locate answers in help files.
During • Ask students to skim the help function to get a general sense of what's in it and where things are. • Engage students in some general discussions of the computer application, making brief notes on the board about the specific functions. • Direct students to independently scan the help function for unfamiliar terms, or words. • Ask students to create a personal list of 10 unfamiliar words. • Direct students to small groups and ask the groups to compare personal lists and create a group master list. • Ask students to compare their list with the *Terminology Checklists.* • Distribute eight pieces of precut card stock and pieces of masking tape to each group.	• **Individual** Skim the chosen help files to get a general idea of what is there. • Scan the text for words they do not know. Make a personal list of the words. • **Group** Compare personal lists. Choose the words for the group master list**.** • Check the group master list against the *Terminology Checklists.* • In each group, print the key vocabulary in large letters on the card stock and tape or pin them to the blackboard or bulleting board, preferably alphabetically.
After • Lead some discussion of the terms/words and ask students for feedback on the terms on the checklist (that applies to the specific software chosen) they knew already. • Ask each group to look up the meanings of its words/terms and then to explain the meaning to the rest of the class	• Use the glossary in the textbook, dictionaries or Internet to find the meanings of words. • Present their words to the rest of the class. • Add the meanings to the words/terms on the cards in smaller letters. • Develop a personal word list with meanings.

Notes

Skimming and Scanning

Skimming	
What is it?	When you SKIM, you read quickly to get the main idea of a paragraph, page, chapter, or article, and a few (but not all) of the details.
Why do I skim?	Skimming allows you to read quickly to get a general sense of a text so that you can decide whether it has useful information for you. You may also skim to get a key idea. After skimming a piece, you might decide that you want or need to read it in greater depth.
How do I skim? Read in this direction. ⟶	1. Read the first few paragraphs, two or three middle paragraphs, and the final two or three paragraphs of a piece, trying to get a basic understanding of the information. 2. Some people prefer to skim by reading the first and last sentence of each paragraph, that is, the topic sentences and concluding sentences. 3. If there are pictures, diagrams, or charts, a quick glance at them and their captions may help you to understand the main idea or point of view in the text. 4. Remember: You do **not** have to read every word when you skim. 5. Generally, move your eyes horizontally (and quickly) when you skim.

Scanning	
What is it?	When you SCAN, you move your eyes quickly down a page or list to find one specific detail.
Why do I scan?	Scanning allows you to locate quickly a single fact, date, name, or word in a text without trying to read or understand the rest of the piece. You may need that fact or word later to respond to a question or to add a specific detail to something you are writing.
How do I scan? Read in these directions. ↓ ↘	1. Knowing your text well is important. Make a prediction about where in a chapter you might find the word, name, fact, term, or date. 2. Note how the information is arranged on a page. Will headings, diagrams, or boxed or highlighted items guide you? Is information arranged alphabetically or numerically as it might be in a telephone book or glossary? 3. Move your eyes vertically or diagonally down the page, letting them dart quickly from side to side and keeping in mind the exact type of information that you want. Look for other closely associated words that might steer you toward the detail for which you are looking. 4. Aim for 100% accuracy!

Sample: Internet Word Wall

Internet Word Wall			
browser	**extranet**	**firewalls**	**HTML**
HTTP	**hyperlink**	**IP address**	**ISP**
World Wide Web	**search engine**	**intranet**	**Internet**
Internet Protocol	**LAN**	**URL**	**WAN**
domain name	**Web server**	**Web page**	**Web site**
Internet Acceptable Use Agreement	**e-mail attachment**	**Bulletin board system BBS**	**e-mail**

Word Cards with Definitions

browser	**HTTP**	**firewalls**
An application that displays a Web page. Also known as a Web browser. 1	Hypertext Transfer Protocol. The Internet protocol that the Web uses to send information to the client, so the client can view Web pages. 2	A system used to prevent access to or from a private network. Firewalls are often used by companies to prevent individuals outside the company from accessing private networks that are connected to the Internet. 3

1, 2, 3, *Introduction to Information Technology In Business, Open BTT1O/2, Appendix Internet Related Terms. www.curriculum.org

Terminology Checklists

Identify and check off the terms you can define already in the lists below. As you learn new things in this course, make notes when you discover definitions of terms you did not know before. As you complete the lists, reflect on how terms relate to one another.

Hardware-Software Terminology	Internet Terminology	Word-Processing Terminology
☐ application software	☐ browser	☐ alignment
☐ CD-ROM drive	☐ bulletin board system	☐ block
☐ BASIC programming language	☐ domain name	☐ bulleted list
☐ binary number system	☐ e-mail	☐ centred alignment
☐ BIT	☐ e-mail attachment	☐ endnote
☐ BYTE	☐ extranet	☐ font
☐ CPU floppy disk drive	☐ firewalls	☐ footer
☐ hardware devices	☐ HTML	☐ footnote
☐ icon	☐ HTTP	☐ italic
☐ input devices	☐ hyperlink	☐ left alignment
☐ mainframe	☐ intranet	☐ maximize button
☐ menu	☐ Internet	☐ minimize button
☐ microprocessor	☐ Internet Acceptable Use Agreement	☐ pagination
☐ modem	☐ Internet Protocol	☐ paragraph alignment
☐ output devices	☐ IP Address	☐ print preview command
☐ primary storage	☐ ISP	☐ right alignment
☐ RAM	☐ LAN	☐ ruler
☐ ROM	☐ URL	☐ subscript
☐ secondary storage	☐ WAN	☐ superscript
☐ system software	☐ Web page	☐ synonym
☐ toolbars	☐ Web server	☐ thesaurus
	☐ Web site	☐ typeface
		☐ window

Spreadsheet Terminology	Database Terminology	Presentation Terminology
☐ cell	☐ database	☐ apply design template command
☐ cell cursor	☐ design view	☐ build effect
☐ cell indicator	☐ entry	☐ elements
☐ cell reference	☐ field	☐ outline view
☐ column	☐ file	☐ PowerPoint presentation
☐ formula	☐ form	☐ presentation
☐ functions	☐ record	☐ slide show view
☐ label	☐ report	☐ templates
☐ order of operations	☐ table	☐ visuals
☐ relative copying	☐ queries	
☐ row		
☐ values		
☐ workbook		

R

Engaging in Reading: Most/Least Important Idea(s) and Information
Introduction to Information Technology In Business

Determining important ideas and information in text is central to making sense of and reading and moving toward insight. (Stephanie Harvey & Anne Gouvis, 2000).

Purpose
- Find the main idea(s) in text by distinguishing between the most important and least important information.

Payoff
Students will:
- become familiar with the text and make judgements about the content.
- work collaboratively with a partner – using reading, note taking and oral strategies – to make sense of a text.

Tips and Resources
- Determining the main idea(s) in a text is not always a clear, straightforward process. Some or all of the following strategies can help students:
  - Activate prior knowledge to help students connect to the information in the text.
  - Note the type of text and its typical audience and purpose (e.g., to persuade, to explain, to illustrate).
  - Set a clear purpose for the text so that students have common ground for fining the main idea.
- Main ideas are often found in first sentences or last sentences in a paragraph, or first and last paragraphs in a chapter.
- The reader constructs meaning, deciding on what is most important based on prior knowledge and experience. What is important to one reader may not be as important to another, unless both have a common goal or purpose.
- See the Teacher Resource, *Most/Least Important Ideas and Information – E-commerce*. For a blank template that can be handed out in class, see Student Resource, *Most/Least Important Idea(s) and Information* and Student Resource, *Assigned Reading: Check Out My New Software!*
- Have students translate the passage they read and their conclusions into a slideshow presentation using presentation software.

Strategies That Work, Chapter 9.
Mosaic of Thought, pp. 94-95.

Further Support
- On the two days after you use this strategy, review the concepts orally using **Take Five**.
- After students have done a least-important/most-important T-chart on their own or in pairs, model the process an additional time by thinking aloud through another passage. Ask students to compare their choices to yours.
- Put students in groups of four, with each group having a different passage from the same chapter of a relevant textbook, to create their own think-aloud passage. Ask students to number off as they begin their work (from 1 to 4) and to remember this number. Students work together to decide least-important/most-important ideas and information and provide reasons for their choices as they prepare their think-aloud. Ask the #3s (and ask to the #1s to assist them) to present their think-aloud to the rest of the class.

R

Engaging in Reading: Most/Least Important Idea(s) and Information
Introduction to Information Technology In Business

What teachers do	What students do
Before • If students are to complete the portion of the lesson that requires them to use presentation software, ensure that prior learning on the use of presentation software has occurred. • Either use Teacher Resource, *Most/Least Important Ideas and Information – E-commerce* or a selected a passage from the textbook used in the class. • Set a clear purpose for reading the passage by explaining that as a group you will identify the most/least important ideas. • Provide students with time to complete the reading. • Read the passage aloud to students, and ask them to think about the most/least important ideas. Read the passage aloud, while thinking aloud through various sentences and ideas to make judgements about the least and most important ideas to model the strategy.	• Read the passage silently, thinking about the purpose for reading. • Listen to the passage while being read, while thinking about their own choices for most/least important ideas.
During • Distribute Student Resource, *Most/Least Important Idea(s) and Information* and Student Resource, *Assigned Reading: Check Out My New Software!* • Set a clear purpose for reading the passage by explaining that once they have identified the most/least important ideas, they will create an information slideshow on the topic using presentation software. • Provide students with time to complete the reading and to fill in the worksheet. • Provide time and access to the lab so that students are able to create their slideshows, either individually or in pairs.	• Record most/least important ideas on Student Resource, *Most/Least Important Idea(s) and Information.* • Convert the information from the worksheet into slides using presentation software, either independently or in pairs.
After • Have students provide verbal feedback on one another's slideshow presentations. • Assign students an additional reading to allow for more practice of this method. Provide them with additional copies of Student Resource, *Most/Least Important Idea(s) and Information* for this reading. • Alternatively, ask students to use two different colours of highlighter on a photocopied reading, and have them use the different colours to represent most/least important information. • Pair students to share and justify their choices, and have them synthesize their ideas on a single, fresh copy of the reading.	• Present their slideshow presentations to the class. • Provide verbal feedback to classmates. • Read the assigned text, conscious of the purpose of reading. • Reread and record the most/least important information using the worksheet. • Reflect on their choices with a partner, and make changes on the worksheet as necessary.

Notes

Teacher Resource

Most/Least Important Ideas and Information – E-commerce

The teacher could use this short passage as a script to demonstrate a think-aloud to students, showing how to decide what is important in a text, and what is less important. It may be used as an overhead in class for the demonstration.

Passage: E-commerce	Most/Least Important Ideas(s) and Information
When the Internet was first introduced, it was primarily used for posting and sharing information by private users like you and me. Over time, companies realized that the Internet could be a powerful tool for conducting business, and e-commerce was born. E-commerce is commercial (or business) activity that is conducted through networks and electronic devices, such as computers. There are many forms that e-commerce can take. Sometimes, the Internet is used for transactions with customers (e.g., selling products online, advertising via Websites or e-mail, etc.). It can be a powerful tool for market research and understanding customers. Other types of e-commerce activity include employees who work from remote locations using shared Intranet sites, e-mail, and videoconferencing.	Less important – background on Internet use and how e-commerce came to be. Somewhat important – examples of types of e-commerce. Examples help me understand what "e-commerce" means.
E-commerce brings with it many business opportunities, as well as threats. Opportunities include the ability to reach customers internationally and serve them "24/7." It can eliminate the need for retail stores, which can save companies money. At the same time, e-commerce poses threats of security, safety, and privacy – both for businesses and for customers. While opening markets of new customers, e-commerce also increases competition – since geographic borders are no longer an issue in doing business.	Important – benefits and threats of e-commerce for businesses. Because this is an "information technology in business course," understanding the positive and negative impacts of e-commerce is likely the most important point.

Key idea from this passage
E-commerce is widely used by businesses in many ways, though it poses both threats and opportunities that businesses need to be aware of.

Student Resource

Assigned Reading: Check Out My New Software!

You just got that new piece of software – a game, a cool application, whatever it was you needed. But you didn't buy it at a store. People share software everyday – sometimes by downloading from Internet sites, sometimes by copying or lending CDs. Is that all right to do? It depends…

When a person creates a piece of software, he or she "owns" the arrangement of code that makes that program run under copyright law. A copyright is a right that protects the owner of certain types of work (writing, drama, art, sound recordings and programs, to name a few) from having their work reproduced by others without permission. In Canada, as soon as anyone produces work (even for a class in school), that person is automatically protected by Canadian copyright. Copyright is a law – therefore, violating it is illegal and can have some very negative consequences – from fines to imprisonment.

Some software is meant to be distributed and shared. This kind of software, sometimes called freeware or public domain software, will explicitly state that it is available for use (usually in a "read me" text file). In such cases, the owner of the copyright, in writing, gives permission to anyone to use and reproduce the work. But don't assume that this is the case.

Though copyright is quite complicated, this section will focus on how copyright applies to shareware and to software that is for sale. Shareware is software available for downloading on a free, limited trial basis – but users are expected to eventually purchase it if they want to use it beyond the trial time. If you decide to use the software, you must register and pay a fee to continue using it. Software that you purchase (called commercial software) is also subject to copyright. When you "buy software," you're actually purchasing a license to use it. The terms of the license can vary – software that you would buy in a store is usually licensed to be used on one computer. However, organizations and groups sometimes purchase site licenses – special arrangements that allow software (usually on one disk or set of disks) to be used on a certain number of machines. It is sort of like buying in bulk.

The following are violations of copyright, often called software piracy:
- incorporating all or part of a freeware program into another program that you offer for sale without express permission from the creator of the freeware.
- continuing to use shareware past the expiration date.
- violating the terms of a software license agreement (for example, if the license agreement says that the software can only be installed on one machine at a time, and you install it two or more machines).
- making copies of site-licensed programs (e.g., those licensed for use at your school) for use at home.
- giving, lending or selling copies of licensed programs to others.

Sometimes, people who violate copyright think that nobody gets hurt. That's not the case. From the software developer's or distributor's perspective, they are not getting paid for their hard work (sometimes years of hard work!) in developing the program. But there can also be some unpleasant consequences for illegal users. For instance, some organizations will fire employees who install software illegally (this protects their risk of prosecution). Individuals who are caught using software illegally can be subject to substantial fines, or even imprisonment in some jurisdictions. You may have read about these kinds of cases, mainly from peer-to-peer Internet download sites, in the media in recent years. You never know…one day, you might find yourself on the other end of a copyright dilemma!

Most/Least Important Idea(s) and Information

Complete the assigned reading and record (exactly) the most important and least important ideas and information. When you have finished recording, go to the bottom section of the chart and write what you believe to be the key idea from the entire reading.

Title of textbook, chapter, or article: _____

Pages read: _____ Purpose for reading: _____

Most Important Idea(s) and Information	Least Important Ideas(s) and Information

Key idea from this passage

R

Reacting to Reading: Drawing Conclusions

Introduction to Information Technology In Business

Readers draw conclusions based on the ideas and information that they read from one or more sources. Providing a graphic organizer *before reading* helps student to organize their thinking *during reading* in order to analyze, make inferences and draw conclusions *after reading*.

Purpose
- Actively use prior knowledge and experiences when reading.
- Read and respond to the important concepts and issues in the course, making inferences and drawing conclusions.

Payoff
Students will:
- develop content and opinions for persuasive writing.
- become thoughtful speakers during whole-class and small-group discussions.

Tips and Resources
- *Drawing conclusions* involves gathering information and deciding what the information means. For example, a report may describe effects of technology in the workplace, it may draw a conclusion about the information (e.g., that certain types of work are better or worse due to technology), and it may offer recommendations.
- See Teacher Resource, *I Read/I Think/Therefore – Sample Response*. This annotated sample illustrates the thinking process that a reader might follow to gather information, reflect, and draw a conclusion.
- Also see Student Resources, *Template for Drawing Conclusions* and *Technology and Everyday Life*. The template helps students to organize their thinking while they are reading and conducting research that requires them to make inferences and draw conclusions. In column one (I Read), students record the relevant information from the reading. In column two (I Think), students record what they know about that information and what they think it means. In the bottom row (Therefore), students record their conclusion based on all the information they gathered and their prior knowledge.

Cross-Curricular Literacy: Strategies for Improving Secondary Students' Reading and Writing Skills, pp. 50-51.
Reading in the Content Areas: If Not Me, Then Who? pp. 41-55.
InsighTs: Succeeding in the Information Age, pp. 9-16.

Further Support
- Encourage students to use their real-life experiences as models for drawing conclusions.
- Create a wall chart to illustrate the strategy I Read/I Think/Therefore and post it as a reference for students.

Reacting to Reading: Drawing Conclusions

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What teachers do	What students do
Before • Either make copies of *Student Resource, Technology and Everyday Life* or select a reading from the class textbook for the lesson. Also make copies of Student Resource*, Template for Drawing Conclusions*. • Using *I Read/I Think/Therefore – Sample Response* as an overhead, demonstrate how you might think through a reading, and suggest how this translates into the student handout, Student Resource*, Template for Drawing Conclusions*. • Distribute *Student Resource, Technology and Everyday Life* and have students preview the reading. • Clarify the purpose of the reading, distributing the graphic organizer (Student Resource*, Template for Drawing Conclusions*) to students and ensuring they understand that they are to use it.	• Read the information provided on the overhead transparency and make inferences based on the information. • Draw a conclusion. • Observe the teacher's thinking process for drawing a conclusion. • Preview the assigned reading and get ready to read. • Clarify the purpose of reading. • Observe how to complete the graphic organizer.
During • Ask students, individually or in pairs, to complete the reading and the graphic organizer. • If working in pairs, partners may read, pause, discuss and record information and their thinking.	• Read *Student Resource, Technology and Everyday Life*, pausing to record important information and make inferences.
After • Review the information gathered in the "I Read" section of the graphic organizer. Note responses and ask students to account for similarities and differences. • Compile information on a transparency of the graphic organizer. • Discuss the students' responses in the "I Think" section. Model how to make inferences, and complete the section of the transparency based on student input. • Review the information and inferences. Ask students to suggest conclusions that can be made based on the information gathered so far. Discuss possible "Therefore" conclusions. • Model how to make a conclusion based on the information gathered. • Ask students to use this thinking process on another reading on the same topic from a textbook. One such reading on this topic is pp. 9-16 in *InsighTs: Succeeding in the Information Age*. Ask students to compare their conclusions of the two separate readings.	• Reread their graphic organizers. Identify similarities and differences among responses. • Draw a conclusion based on the information and inferences in the chart. • Compare their own conclusions with those of others. • Apply their learning to a different reading on the same topic, and look for changes to their conclusions based on new information and/or evidence.

R

I Read/I Think/Therefore – Sample Response

Students are encouraged to use the graphic organizer, *Template for Drawing Conclusions*, while reading and responding to text. However, they can also use it to accumulate information about a topic from several sources before drawing a conclusion. The example below can be used to model the thinking that one might go through while reading a text.

> The **text says** that there are some things that job seekers can do to protect themselves from threats to privacy and safety.
> **I think** it is extremely important for job seekers to be aware of and apply these tips.

The Internet has changed the way that people look for and get jobs. Countless Web sites exist to help people find jobs online. Some sites contain listings of jobs posted by employers. People looking for jobs can use the built-in search engines on those sites to find jobs that meet certain criteria (e.g., industry, location, type of work). Some even specialize in posting only certain types of jobs (e.g., only technology-related jobs). Other sites allow job-seekers to post their resumes online so that employers can look at them online and select people that they might want to hire. Many employers require job-seekers to send their resumes electronically – either by e-mail or interactive Web sites. Some employers even use software to sort resumes they receive based on keywords!

> The **text says** that information that job seekers post can be used in inappropriate ways.
> **I think** that this should be monitored to protect people from problems such as identify theft and personal safety.

It all sounds wonderful – and many times it is. But when information is transmitted electronically, there are always some cautions. If you decide to search for a job online, you need to be aware of some serious security and privacy concerns. Think about the personal information that resumes or job applications contain – name, address, telephone number, job history, education, and so on. Most people would want to be sure that their personal information does not get into the wrong hands. Some of the possible pitfalls of electronic job hunting (especially where your resume is posted online) include:

- if you already have a job, your current employer might find your resume there – which can be a problem if he/she does not know that you're looking for another job.
- depending on the type of information transmitted, someone could steal your identity.
- someone interested in harming you could find you easily.
- you could be added to mailing or spam lists by devious marketers.
- you might be invited to an "interview" with somebody posing as an employer who has devious intentions.

> The **text says** that there are a number of types of ways to seek jobs online.
> **I think** that I need to learn more about the different types of sites so I can understand how they work and the benefits of them.

There are many things you can do to make your job search safer and more productive. First, avoid posting your resume on unknown sites or sending it to unknown companies or people. Make sure job sites to which you share/post your resume have privacy policies. Leave out as much personal information as possible. Finally, keep track of where you send your resume.

Therefore…

Though the Internet can help people find jobs, it is extremely important for job seekers to be cautious when looking for and applying for jobs online to protect their safety.

Student Resource

Technology and Everyday Life

Could you imagine your life without computers? There would be no e-mail, no Internet, no video games, and no automated banking, just to name a few things. Technology has touched nearly every facet of our lives. A growing array of software and other types of technologies make it easier than ever for people to do business, shop, learn and communicate. Technology provides huge opportunities for people as individuals, and to help move society forward. At the same time, it presents new problems that people a few decades ago could not have imagined. Table 1 below presents a few examples of technology's many impacts.

Table 1: Summary of selected technology use and some of its effects

Area of technology use	Some examples of positive effects	Some examples of negative effects
Law and order	• legal information can be quickly communicated to many people • injustices can be communicated to create awareness • increased safety (e.g., alarm systems, cellular phones)	• cyber crime (e.g., copyright infringement, software piracy, Internet fraud, hacking, etc.) • threats to privacy, security (e.g., identity theft)
Politics and government	• "e-government" allows citizens to access certain types of services • online voting • citizen use of the Internet to be informed about issues	• "digital divide" means that some people are left out due to unequal distribution of technology • new types of laws needed
Health and science	• ability to perform many types of tests and procedures (e.g., laser surgery, early detection of disease, etc.)	• new health problems and diseases (e.g., ergonomic-related injuries) • potential for harm to the environment through technological innovations
Education	• access to courses online that a student would not otherwise have the opportunity to take • opportunities to learn through self-directed research • more information available to learners	• potential for fewer face-to-face educational opportunities • greater possibility of plagiarism and inappropriate use of information for education
Art and entertainment	• individuals can create and share media quickly and cheaply (e.g., graphics, desktop publishing, digital cameras) • access to art and media via the Internet and other digital technologies	• increased potential for copyright infringement and illegal use of materials (e.g., MP3 music file downloads)
Individual, family and friends	• aid to persons with disabilities (e.g., voice recognition software) • ability to communicate and share information quickly and across great distances through electronic technologies (e.g., e-mail, Web sites) • forms of entertainment (e.g., video games, virtual reality)	• less face-to-face interaction among people • threats to personal privacy and security (e.g., identity theft) • "digital divide" means that some people are left out due to unequal distribution of technology
Work and organizations	• can perform certain dangerous and unpleasant tasks (e.g., robotics used to paint automobiles) • flexibility to work with others without geographic boundaries (e.g., videoconferencing, working from home or another location) • new kinds of business arrangements and new kinds of jobs	• certain jobs become eliminated when technology can do work done by people • there is a danger that organizations place too much emphasis on technology to do work without mistakes • reduces or eliminates face-to-face contact

What next?
It is impossible to predict exactly where technology will lead, and what the next generation of innovations might be able to accomplish. Science fiction literature and media is filled with predictions – some outlandish, and some that seem realistic. But what can we really expect? There will certainly be improvements to hardware. Processors will become faster and more powerful. Computers will probably get smaller in size. This will unleash all sorts of possibilities. As programming languages evolve, software will be able to do new and different things. As more people get access to technology (e.g., increased Internet access), we might see more communication and information exchange. How these factors will translate into reality are unknown. How will your life be affected? How will your work be affected? Will there be changes in how you view your personal privacy and security in coming years? Will you have access to more or less information? How will your leisure activities change? You can only imagine....

Template for Drawing Conclusions

I read	I think

Therefore…

R

Reacting to Reading: Making Judgements
Introduction to Information Technology In Business

Readers increase their understanding by reviewing what they have read, reflecting on what they have learned, and asking questions about the significance.

Purpose
- Assess different viewpoints or perspectives.
- Make judgements about viewpoints or opinions.

Payoff
Students will:
- think critically about course-specific materials.
- review different types of questions and how to answer them.
- summarize important ideas, concepts and information.
- develop critical thinking skills.
- develop a model for reading and thinking critically about important concepts, issues and ideas.

Tips and Resources
- To make *judgements*, readers ask questions to help them process information, assess the importance and relevance of the information, and apply it to a new context. *Evaluating* is a skill that readers use when reading and critically thinking about a particular text. Readers make value judgements about the validity and accuracy of the ideas and information, the logic of a writer's argument, the quality of a writer's style, the effectiveness of the text organization, the reasonableness of events and actions, and more.
- For more information, see:
  - Teacher Resource, *Both Sides Now – Sample Response.*
  - Student Resource, *File Sharing or Stealing?*
  - Student Resource, *Both Sides Now – Template for Making Judgements.*
  - Student/Teacher Resource, *Clues for Finding Answers in the Text.*

Cross-Curricular Literacy: Strategies for Improving Secondary Students' Reading and Writing Skills, pp. 48-51.

Further Support
- Review the reading skills of tracking main ideas, comparing and contrasting, making inferences and drawing conclusions.
- Encourage students to ask questions about what they are reading. For example, have students write questions based on a textbook chapter, section or topic-related resource they have read. Ask one of the students to read his or her questions to the group. Model answering the question referring the student specifically to the text where appropriate. Ask another student to write a question, have this student ask one of his/her questions. Continue until all students in the group have asked and answered a question.
- As an alternative, have students identify the type of question (on the lines, among the lines, between the lines, and beyond the lines) before they answer or determine the type of questions to be generated. Students may require teacher modeling over several lessons of asking, identifying and answering questions.

Reacting to Reading: Making Judgements
Introduction to Information Technology In Business

What teachers do	What students do	Notes
Before • Either prepare copies of Student Resource, *File Sharing or Stealing?* or select a relevant reading from your course textbook for this lesson. • Either use Teacher Resource, *Both Sides Now – Sample Response* or a similar issue to introduce concepts by writing the statement on the chalkboard or on an overhead transparency (you may wish to make an overhead of Student Resource, *Both Sides Now – Template for Making Judgements* for this purpose) and have the class think about the topic/question. • Review the difference between information (fact, statistics, examples, etc.) and opinion (inferences based on information, prior knowledge, experience, bias). • Ask for one idea or piece of information that supports the question or statement and record it on the T-chart from Student Resource, *Both Sides Now – Template for Making Judgements* or chalkboard. • Ask students where their responses came from (e.g., prior experience, readings, etc.). • Inform students that writers may include ideas or information to support both sides of an issue, or may only include evidence to support their viewpoint. Effective readers question ideas and information. • Ask students to preview the reading selection for the lesson, and make predictions about content. Small groups should share predictions.	• Recall what they know about the question or topic. • Recall what they already know about information and opinions. • Observe the teacher recording evidence. • Recall what they learned about the topic or issue. • Use reading strategies to preview the assigned reading and make predictions. • Contribute to group discussion.	
During • Ask students to read the Student Resource, *File Sharing or Stealing*? to identify the viewpoints presented. • Observe students' reading and intervene to clarify the task or content if needed. • Prepare possible viewpoint/opinion and evidence for recording in the T-chart (Student Resource, *Both Sides Now – Template for Making Judgements*).	• Read Student Resource, *File Sharing or Stealing*? or other reading assigned by the teacher and ask questions about the information such as: What is the viewpoint? Does this support or oppose the viewpoint? • Identify the opinion(s) or viewpoint(s) presented in the reading.	
After • Ask partners to verbally summarize reading material, and identify the writer's viewpoint. • Ask students to provide an idea or information from the reading that supports the viewpoint. Continue recording alternating information that supports and opposes the question or topic. • Ask partners to review and discuss the evidence and make a decision based on the evidence and related inferences. • Partners share their decisions and state reasons for their decision. • Students write responses to the question/statement based on their learning.	• Listen to partner's summary and compare it to his/her own. Add to own understanding. • Contribute to the discussion. • Evaluate the evidence and make a judgment based on the information provided in the text, inferences they have made, and their own knowledge and experience. • Develop an opinion based on accumulated learning.	

Both Sides Now – Sample Response

Editorials, magazine articles, and reference materials often present one side or viewpoint on a particular issue, or limit one of the viewpoints. Therefore, students may need to read several selections on the same issue or topic to fully consider both sides of an issue before making a judgment based on the evidence provided.

Both Sides Now		
Evidence that Supports	**Question or Statement** Do employers have a right to "spy" on their employees' computer use to stop personal use of company computers?	**Evidence that Opposes**
Employers own equipment so they have a say over how it is used.		Employees have a right to attend to personal emergencies or issues – which might mean they need to use the computer for personal use that is private.
Employees are paid to be "on task" at work, not attending to personal things.		
Employers are liable for any illegal activity that happens on their equipment.		Employees might not have computers at home, so using them at work addresses inequity.
		All people – including employees – have a right to privacy.

Decision
Because employers own the equipment and have a right to ensure it is being used for work-related purposes, they should be allowed to spy on employee computer use.

Reasons
• When somebody owns an item, they have the right to decide how it is used – this is the case for employer ownership of computers. • If an employee used company equipment for illegal purposes, the company could be sued. Spying minimizes this legal risk. • Though all people have certain privacy rights, they also have a responsibility to act appropriately, particularly in work situations.

File Sharing, or Stealing?

In recent years we have seen the development of online sharing of music files between individuals, often through peer-to-peer network sites like Napster, Inc. or Kazaa. These sorts of sites work by allowing people to find and download music files directly from computers of other people who are online. The music files, usually in MP3 format, are neither stored or sent by sites Napster or Kazaa. Instead, the "transaction" or sharing takes place directly between individuals. Napster made users agree not to use the software to exchange copyrighted music prior to downloading it, leaving users to the honour system.

In recent years, cases revolving around this sort of sharing have made it to the courts. Napster, Inc. was successfully sued by the recording industry, and was shut down for some time. The recording industry even sued individuals in the United States who were sharing through these types of sites – some as young as twelve years old – and won! In another instance, a university was sued by the recording industry because students were sharing music files on the university's computers.

The recording industry argues that sharing files through sites, like Napster and Kazaa, breaks copyright law, and that artists are not being properly compensated for their work. If those people had bought the music, then the record company would pay royalties to the artists involved.

In court, individuals and representatives of music-sharing Web sites have argued that letting people share music files for free, cause them to go out and buy CDs – thus actually increasing sales of CDs in stores. However, the opposite may be true. Some studies suggest that students only went on to buy 10% of the music they downloaded. Other fans of this type of file sharing argue that lesser known artists would become more widely known as a result of this type of "sharing." No one, however, is disagreeing with the reality that the Internet has had, and will continue to have, a tremendous impact in the distribution of music—legally or not.

Both Sides Now – Template for Making Judgements

Both Sides Now		
Evidence that Supports	**Question or Statement:**	**Evidence that Opposes**
Decision		
Reasons		

Clues for Finding Answers in the Text

On the lines	Some questions can be answered by "reading on the lines;" the answer is right there in the text. The question asks for literal information from the selections such as details, facts and information stated by the author. Some "question starters" that ask for literal knowledge are *give, list, find, describe, tell, retell* and *what.* To answer a question "on the line," • find the words used to create the question. • look at other words in that sentence to find the answer.
Among the lines	The answers to some questions are to be found by "reading among the lines." This type of question has an answer in the text, but this answer requires information from more than one sentence or paragraph. Some "question starters" that ask for literal knowledge are *list, compare, how* and *summarize*. To answer a question "among the lines," • find the words used to create the sentence. • reread the sentences or paragraphs that contain the question words. • look at other words in the sentences or paragraphs to find the answer.
Between the lines	Some questions ask you to read "between the lines." This type of question asks the reader to make inferences based on the ideas and information in the text. The answer might be found interpretively in the reader's own background knowledge, but would not make sense unless the reader had read the text. Some "question starters" that ask for inferences are *why, how/what might, what do you think, explain* and *predict*. To answer a question "between the lines," • look for key words and clues in the question. • re-read that part of the text in which the author gives clues needed to construct the answer. • ask yourself, "Is this what the author meant?" and " Does this make sense?"
Beyond the lines	The answers to some of these questions are not in the text at all: they go "beyond the lines." This means searching for the answer in the reader's own background knowledge. Some "question starters" that ask for interpretations are *what can you learn from, how might you, what if,* and *is it fair that.* To answer a question "beyond the lines," • read the question and identify key words. • identify your beliefs, experiences and knowledge related to the question. • ask yourself, "Would the author agree with this conclusion?"

W

Developing and Organizing Ideas: Webbing, Mapping and More
Introduction to Information Technology In Business

Effective writers use different strategies to sort the ideas and information they have gathered in order to make connections, identify relationships, and determine possible directions and forms for their writing. This strategy gives students the opportunity to reorganize, regroup, sort and categorize, classify and cluster their notes.

Purpose
- Identify relationships and make connections among ideas and information.
- Select ideas and information for possible topics and subtopics.

Payoff
Students will:
- model critical and creative thinking strategies.
- learn a variety of strategies that can be used throughout the writing process.
- reread notes, gathered information and writing that are related to a specific writing task.
- organize ides and information to focus the writing task.

Tips and Resources
- Strategies for webbing and mapping include:
  - Clustering – looking for similarities among ideas, information or things, and grouping them.
  - Comparing – identifying similarities among ideas, information, or things.
  - Contrasting – identifying the differences among ideas, information, or things.
  - Generalizing – describing the overall picture based on the ideas and information presented.
  - Outlining – organizing main ideas, information, and supporting details based on relationships.
  - Relating – showing how events, situations, ideas and information are connected.
  - Sorting – arranging or separating into types, kinds, sizes, etc.
  - Trend spotting – identifying things that generally look or behave the same.
- For more information, see:
  - Student/Teacher Resource, *Webbing Ideas and Information.*
  - Student/Teacher Resource, *Mind Mapping: Hardware Components of a Computer Workstation.*
  - Student/Teacher Resource, *Mind Map Checklist.*
  - Curriculum Unit Planner.
  - BTT 10/20 Textbooks, *InsighTs: Succeeding in the Information Age,* Chapter Two.
- To provide opportunities to develop numerous graphic organizers such as webs, flow charts, and Venn diagrams, see *Smart Ideas* software, licensed for school use.

Where Heart Meets Mind, p. 217.
Educational Connections, pp. 270-271, 151.
Curriculum Unit Planner (Ontario Ministry of Education and Training): Teaching/Learning Strategies, The Web, p. 136.

Further Support
- Provide students with sample graphic organizers that guide them in sorting and organizing their information and notes- e.g., cluster (webs), sequence (flow charts), compare (Venn diagram). *Smart Ideas*, software licensed for school use gives the student an opportunity to develop numerous graphic organizers.
- Have students create a variety of graphic organizers that they have successfully used for different writing tasks. Create a class collection for students to refer to and use.
- Provide students with access to markers, highlighters, scissors, and glue, for marking and manipulating the gathered ideas and information.
- Use mind mapping within student discussion groups. Such activities can allow students to articulate and record their prior knowledge about a topic, and additional questions they have. Specific approaches to group mind mapping can be found in the resource books identified above.

W

Developing and Organizing Ideas: Webbing, Mapping and More

Introduction to Information Technology In Business

What teachers do	What students do	Notes
Before • Select a chapter from the textbook used in your class on the functions of the hardware components of a computer workstation. • Prepare overhead transparencies of Student/Teacher Resources, *Webbing Ideas and Information, Mind Mapping Hardware Components of a Computer Workstation,* and *Mind Map Checklist*. • Divide the class into groups of five. • Explain the process of webbing using the three transparencies. • Ask the students to individually list everything they know about the functions of a computer workstation. • Assign the selected reading.	• Recall past use of a webbing or mind mapping strategy to record or organize thinking. • Recall what they already know about the topic.	Notes
During • Present the parameters of the task. • Explain the time limits and remind the managers that they must keep track of time. • Ask students to share their readings with the group and remind the note taker to record the ides generated. • Circulate, ensuring that all students are fulfilling their roles. • Comment constructively on the process.	• Contribute to the discussion. • Fulfill their roles. • Act positively. • Encourage group members. • Adhere to the time limits. • Assess the product. • Make changes needed. • Ensure that they can explain every aspect of the group mind map. • Sign their name to the mind map once they can explain all the aspects of the map. • Present the mind map.	
After • Ask students to re-read their webs and use them to make notes.	• Make connections between the web and possible ways of organizing information.	

Student/Teacher Resource

Webbing Ideas and Information
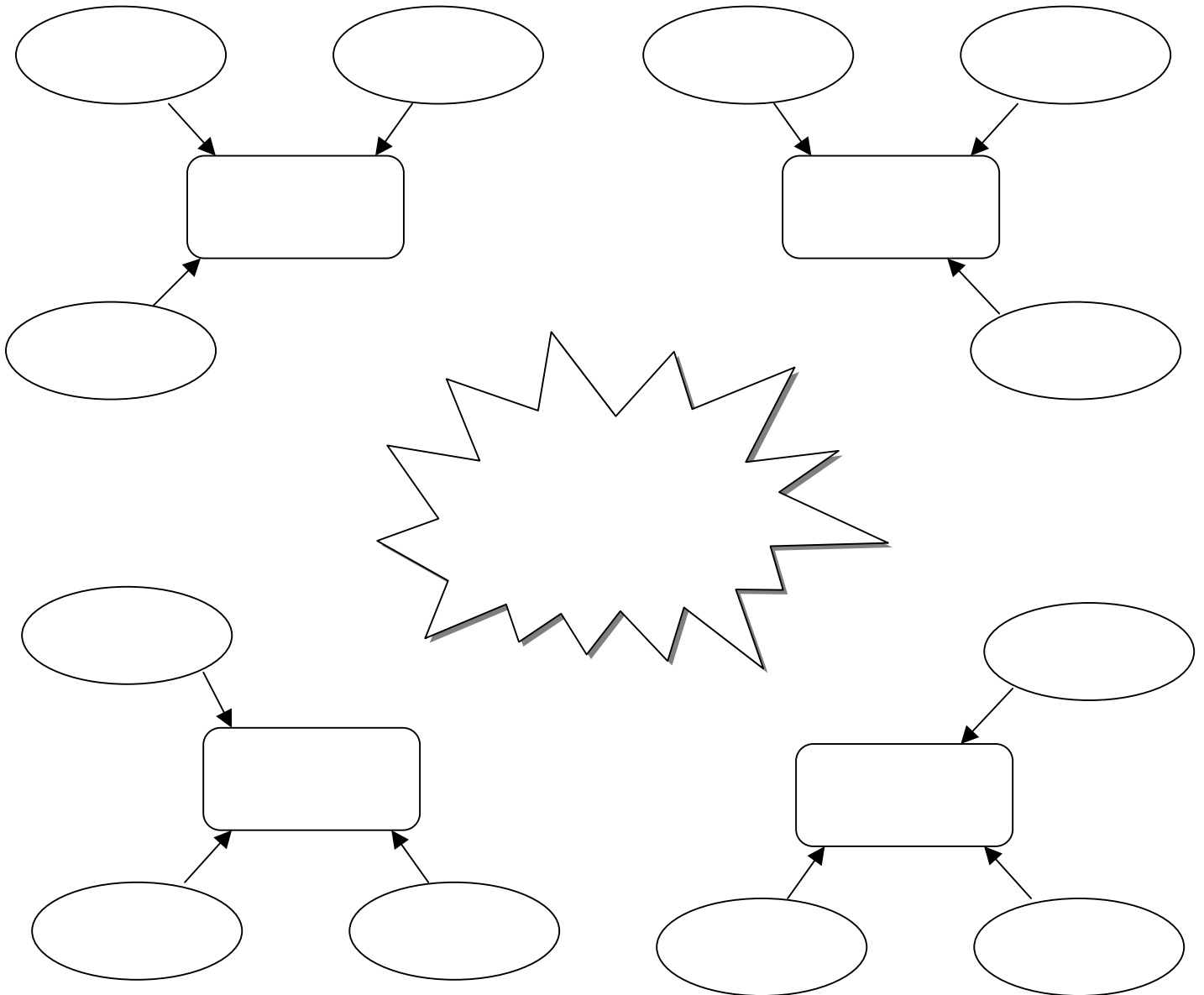
What are the big ideas?
Can you identify any patterns and trends?
How are the ideas and information connected?
What evidence or information is missing?
Is a particular viewpoint suggested?
Does the web suggest a writing outline?

Student/Teacher Resource

Mind Mapping Hardware Components of a Computer Workstation

Prepare a Mind Map on the functions of the hardware components of a computer workstation.

What Students Do

Individually
1. List everything you know about computer workstations before you begin the research and reading.
2. Do the assigned reading on the anatomy of a computer, how computers work.

Group
1. Share the findings with the group. The note taker will record the findings.
2. Brainstorm your ideas for a mind map.
3. Prepare and assess the mind map.
4. Present the mind map.

Structure

You are going to visually record what your group (you) learned.

Parts

Defined Center – contains the central concept or topic.
Emphasis – highlights the important information by use of bubbles, arrows, and graphics.
Colours – aid in organizing different points.
Key Words – function as triggers to release additional and connected ideas.
Chains – provide the connections or links to further establish and create relationships between ideas or things.
Visualizations – are enhanced with illustrations, novelty of shape, and detail to facilitate retention.

Remember:
- The mind map evolves as you brainstorm ideas.
- Avoid all criticism and judgment. This helps develop lots of ideas. Quantity is the goal.
- Zany, wild, silly, way-out ideas are welcome. Build on the ideas of others.
- Mapping involves a minimum or words and visuals to outline the computer workstation.
- You are building a mental picture; images should precede words.

Roles

Leader: **(lives closest to the school***)*
defines the task, keeps the group on task, and suggests a new way of looking at things.
*Manager: (***the youngest member of the group)**
gathers and summarizes materials the group will need, keeps track of time, and collects materials the group used.
Note maker: (*has the closest birthday to today)*
records the ideas generated by the group, and clarifies the ideas with the group before recording.
*Reporter: (***is the tallest)**
explains the group's mind map to the class.
*Supporter: (***the remaining member)**
provides positive feedback for each speaker, makes sure everyone gets a turn, and intercepts negative behaviour.

Success depends on each of you being able to explain every aspect of the group mind map.

Mind Map Checklist

The Functions of the Components of a Computer Workstation

Structure
- ☐ Unified center
- ☐ Clearly defined sections
- ☐ Use of colour
- ☐ Use of visuals
- ☐ Originality
- ☐ Masterful handling of structural elements, unified and coherent
- ☐ Well organized with a cohesive flow
- ☐ Visual aids are there but do not enhance the content
- ☐ Poor visual aids

Content
- ☐ Power supply
- ☐ Motherboard
- ☐ Central processing unit
- ☐ External cache
- ☐ Internal cache
- ☐ Expansion slots
- ☐ Peripheral devices
- ☐ Hard drive
- ☐ Memory storage space
- ☐ Storage devices
- ☐ RAM
- ☐ ROM

Presentation
- ☐ Presenters show (thorough, considerable, moderate, limited) mastery of all aspects of the topic.
- ☐ The information was accurate and complete.
- ☐ The information was incomplete and/or inaccurate.
- ☐ All the members of the group could explain every aspect of the group mind map.

Developing and Organizing Ideas: Supporting the Main Idea

Introduction to Information Technology In Business

In this strategy, students learn how to select the better of two possible main ideas to use as a topic sentence in an information paragraph, and learn how to choose details to support it. Student samples are selected from a variety of subject areas. Samples may also be used to teach summary writing.

Purpose
- Distinguish between main ideas and supporting details for a paragraph.

Payoff
Students will:
- write well-organized paragraphs for different subject areas with supporting details.
- demonstrate a clear understanding of the topic.
- improve reading comprehension by spotting main ideas and supporting details.

Tips and Resources
- Write the sentences into a paragraph, starting with the most general and writing the remaining sentences in order of importance (most or least or least to most).
- Use this strategy to argue a point in business studies.
- See *Finding Organizational Patterns* in the *Think Literacy* document as a follow-up.
- "Main idea": a broad statement that includes a topic that can be expanded. It usually begins a paragraph e.g., Studying mathematics organizes the mind versus Art appreciation opens the mind.
- For more information, see:
  - *Student Resource, Finding and Supporting the Main Idea.*
  - *Student/Teacher Resource, Finding and Supporting the Main Idea – Sample Exercise.*
  - *Student/Teacher Resource, Finding and Supporting the Main Idea – Answer Key.*
- This strategy can help students to understand how to do the task on information paragraphs in the Ontario Secondary School Literacy Test.
- Expectation reference: "Describe workplace situations where standalone systems and networks are best suited."

Further Support
- Alternative methods:
  - Complete the activity on paper
  - Work individually or in pairs
  - Read groups of sentences
  - Look for the best-supported general statement
  - Cross off the statements that do not fit the general statement selected

W

Developing and Organizing Ideas: Supporting the Main Idea

Introduction to Information Technology In Business

What teachers do	What students do
Before • Use Student/Teacher Resource, *Finding and Supporting the Main Idea – Sample Exercise* or create a similar set of paragraphs based on textbook content for this lesson. • Enlarge the sample paragraphs, and cut each sentence into a separate strip. Place each paragraph into a separate envelope. • Model the strategy using an overhead of "paragraph one" and the suggestions in the *Tips and Resources* section as a guide.	• Read through the set of statements from paragraph one with the teacher. • Annotate statements while the teacher models them.
During • Distribute the remaining paragraphs to the class. Ask students, individually or in small groups, to create a solution for paragraphs two and three. • As a large group, discuss their solutions using Student/Teacher Resource, *Finding and Supporting the Main Idea – Answer Key* as an overhead. • Organize students into groups of three or four. Ask groups to create a similar exercise with an original paragraph based on a topic currently studied in class. Ensure they create an answer key. • Have groups "trade" their original paragraphs, then trade back for assessment.	• Work individually or in pairs or small groups. • Read groups of sentences. • Look for the best-supported general statement. (If there is more than one main idea, select the one with the most supporting statements). • Cross out statements that do not fit the main idea. • Organize the statements with the main idea on top or clearly marked, followed by supporting statements. • Assess their performance based on the answer key presented. • Create their own version of this activity to share with other groups. • Complete at least one scrambled paragraph from another group. • Give and receive feedback based on student-generated scrambled paragraphs.
After • Review and discuss the activity. • Model how to use the sentences to write a paragraph. • Demonstrate how to write a concluding statement for the three paragraphs in Student/Teacher Resource, *Finding and Supporting the Main Idea – Sample Exercise.* • Assign a new topic related to current studies, and ask students to create their own paragraphs by applying what they have learned.	• Review statements with a teacher. • Write sentences into a paragraph, with an emphasis on concluding sentences. • Complete an original paragraph on a teacher-assigned topic, demonstrating application of learning from this activity.

Notes

Finding and Supporting the Main Idea – Sample Exercise

Paragraph one

There are many network topologies to choose from (e.g., star, hub, ring).
Describe the network in your school.
Networks are best suited for workplaces where a number of employees use computers and need to share resources.
Networks allow all the connected workstations to share resources such as printers, scanners, Internet connections, and so on.
Networks link two or more computers together, often with a server.
There are many books and articles written about networking.
The type of network an organization selects depends on how many workstations there are, the type of work done and how people use technology in their jobs.

Paragraph two

Repetitive strain injury (RSI) is the most common category of ergonomic injury, which occurs from repeated movements that damage muscles and tissues (e.g., carpal-tunnel syndrome).
Ergonomic equipment is expensive to purchase.
Ergonomics is the design of workplace computers, equipment, and environments so that they are safer for worker use.
Applying ergonomics is important to the information technology workplace in order to increase productivity and decrease injury among workers.
Colours, temperature, lighting, furniture, and equipment should all be designed with ergonomic principles in mind.
Many people experience back and wrist pain.
It is estimated that ergonomic-related injuries cost the Canadian economy $8 million per year in lost wages and productivity plus healthcare costs.

Paragraph three

Always check the Internet.
Technology has improved our lives in many ways.
Computers help make it easier to communicate.
New forms of technology allow businesses to conduct transactions more effectively.
Modern technology has contributed to new ways of working.
Less expensive computers mean that technology can have greater impact on our lives.
People have more technological know-how than ever before.

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[1] Source: Janice L. Ellerby, Laura E. Pinto, and Victoria E. Brady. *InsighTs: Succeeding in the Information Age* (Student Edition). Toronto: Nelson, 2000, p. 77.
[1] Ibid, p. 78.

Finding and Supporting the Main Idea

1. Look at the scrambled statements in paragraph one.

2. Identify two main ideas in paragraph one.

3. Choose which main idea is best supported by the other statements given – this will be your main idea for the paragraph.

4. Cross off or remove the statements that do not belong in the paragraph (i.e., do not support the main idea).

5. Order the statements in the paragraph.

6. Share and compare your ideas with others.

7. Write your final paragraph.

Repeat the process for paragraphs two and three.

Finding and Supporting the Main Idea – Answer Key

> **Legend**
> ➔ main idea
> ✓ statement belongs in the paragraph
> ✗ statement should be crossed off or removed – does not belong

Paragraph one
➔ Networks are best suited for workplaces where a number of employees use computers and need to share resources.
✓Networks allow all the connected workstations to share resources such as printers, scanners, Internet connections, and so on.
✓Networks link two or more computers together, often with a server.
✓The type of network an organization selects depends on how many workstations there are, the type of work done, and how people use technology in their jobs.
✗ There are many network topologies to choose from (e.g., star, hub, ring).
✗ Describe the network in your school.
✗ There are many books and articles written about networking.

Paragraph two
➔ Applying ergonomics is important to the information technology workplace in order to increase productivity and decrease injury among workers.
✓ It is estimated that ergonomic-related injuries cost the Canadian economy $8 million per year in lost wages and productivity plus healthcare costs.
✓ Repetitive strain injury (RSI) is the most common category of ergonomic injury, which occurs from repeated movements that damage muscles and tissues (e.g., carpal-tunnel syndrome).
✓ Ergonomics is the design of workplace computers, equipment, and environments so that they are safer for worker use.
✓ Colours, temperature, lighting, furniture, and equipment should all be designed with ergonomic principles in mind.
✗ Ergonomic equipment is expensive to purchase.
✗ Many people experience back and wrist pain.

Paragraph three
➔ Technology has improved our lives in many ways.
✓ Computers help make it easier to communicate.
✓ New forms of technology allow businesses to conduct transactions more effectively.
✓ Modern technology has contributed to new ways of working.
✓ Less expensive computers mean that technology can have greater impact on our lives.
✗ People have more technological know-how than ever before.
✗ Always check the Internet.

Revising and Editing: Reorganizing Ideas

Introduction to Information Technology In Business

Writers revisit their writing as they draft to add, delete, and change ideas and information. There are specific strategies writers use to revise their writing. One strategy writers use is ARMS (add, remove, move, substitute). (Faigley and Witte, 1981)

Purpose
- Identify different strategies for reorganizing content.
- Examine and determine effectiveness of sentence and paragraph order.

Payoff
Students will:
- organize writing effectively for different purposes in different subject areas and different media.
- organize ideas and information for clarity and emphasis.

Tips and Resources
- Revising is the process of making sure that the writing says what the writer wants it to say. Most writers look for the biggest problems first and then tackle the smaller ones. For example, a writer may begin with the completeness of content, accuracy, and depth of supporting details and evidence, and the way the writing is organized, then look at style, grammar, spelling and usage. Sometimes it is helpful to consider reviewing the writing by looking at paragraphs, then sentences, then finally words and phrases.
- For more information, see:
  - Teacher Resource, *Paragraph Compare.*
  - Student/Teacher Resource*, How Can This Paragraph Be Fixed?*
  - Student Resource, *Writing Task*.

"Analyzing Revision" *College Composition*, 32: 400-410.

Further Support
- Have students select a section of a current writing task that they want to revise, and read it aloud to another student. The partner summarizes/paraphrases the content. The student author notes changes, misunderstandings, and omissions, and then clarifies the partner's paraphrase. The partner asks questions about the content and the elements of style to clarify the writing's content and organization. The student author uses the feedback to revise his or her writing.
- Provide students with opportunities to apply their ability to use word processing features/functions (e.g., cut, paste, copy, delete, track changes) in revising. Emphasize the importance of version control for revisiting previous drafts.
- Encourage students to read their writing aloud, and circle ideas that are confusing, put arrows where information or evidence is missing, and cross out repetitious information or words. This process can also be useful to edit writing by circling words and phrases that they wish to improve or that have been overused.

Revising and Editing: Reorganizing Ideas
Introduction to Information Technology In Business

What teachers do	What students do

Before
 	
 • Distribute copies and/or create an overhead of Teacher Resource, *Paragraph Compare*.
 • In groups of 3 or 4, have students read the two paragraphs and discuss which is more effective and why (note: each version has strengths and weaknesses).
 • Have students make suggestions to improve the writing and provide questions for revisions such as:
   - Does it make sense?
   - Is the topic clear?
   - Is the main idea clear?
   - Are there enough details to support the main idea?
   - Are there examples to support the main idea?
   - Is the closing sentence a conclusion?
 • Record the revision prompts on chart paper or on the chalkboard.
 • Distribute copies **and** create an overhead of Student/Teacher Resource, *How Can This Paragraph Be Fixed?*
 • In groups of 3 or 4, have students read and suggest how the paragraph could be improved.
 • Demonstrate on the overhead how to make editing marks on a hard copy (e.g., arrow, scribbles, editing notations, etc.) based on student suggestions to improve the paragraph within the large group.
 • Facilitate student discussion and feedback on proposed changes.
 • Discuss with students how word processing software would assist in making the changes. If you have a multimedia projector, demonstrate the changes in a word processor.
 • Discuss, as a group, how this information could be translated into slides using presentation software. What would be the same? What would be different?
	• Read the paragraphs and summarize the main idea and details.
	 • Contribute to the discussion by identifying the strengths and weaknesses of each paragraph (e.g., "strong topic sentence," "supporting details are logical," "uses examples/deal to support main idea," etc.).
	
	 • Reread the revision prompts and ask questions about the prompts.
	
	 • Read the paragraph and suggest ways to change it.

During • Distribute copies of Student Resource, *Writing Task* and review revision note formats, and how to use word processing features/functions to edit. • Students may work individually or in pairs. Provide ample time for students to gather information in order to complete the task, either from their textbook and/or Internet-based research. Ensure they key their first draft paragraphs into a word processor. • When complete, have students exchange work with another student or pair for editing and revision suggestions. If working electronically, have students use the "track changes" feature. If working with hard copies, then students should use the strategies modeled by the teacher. • Have students revise their own work electronically.	• Complete the writing task. • Provide feedback for suggestions to other students. • Use word processing software to compose and revise their work.
After • Have students edit their work in the form of slides (which allows them re-organize their writing for a different purpose). • Have students complete slides based on their paragraph using presentation software.	• Revise their work for a different medium and purpose. • Use presentation software.

Paragraph Compare

Read the two paragraphs below, both of which are about the same topic. Identify the strengths and weaknesses of each. Which paragraph do you think is the most effective? Electronically or in your notebook, justify your decision.

Sample Paragraph 1

Chances are you have read e-mail, chat messages or online posts that annoyed you for one reason or another. Sometimes, it is the content that is annoying, but more often the problem is how the information is communicated. That's where netiquette comes in handy. *Netiquette* is using technology effectively to communicate with others both personally and professionally with knowledge, understanding and courtesy. This unique term is a combination of words: some believe it is based on InterNET eTIQUETTE, while others insist it is NETwork eTIQUETTE. Either way, those who follow such guidelines improve their ability to interact both on the Internet and in networked environments. Netiquette is important for two reasons. First, it ensures that that there is respect between people communicating electronically, minimizing possibilities for certain types of conflicts and other problems. Second, following netiquette guidelines can help information to be communicated more clearly, since many of these guidelines eliminate a lot of confusing features that often appear in messages.

Sample Paragraph 2

"Netiquette" is a term used to describe a set of guidelines for communicating electronically that respects others. It focuses on following certain types of which apply to e-mail, chat, discussion forums, and any other electronic communication channels. The key to all netiquette is thinking about the reader, and how he or she would respond to a message. Many different people and organizations have proposed netiquette guidelines – some specific to e-mail communication, and others more general that include all types of electronic communication and network use. There are countless books and Web sites dedicated to netiquette. Generally, the rules of netiquette dictate that one should be polite, refrain from using "all caps," keep electronic messages brief and to the point, refrain from sending chain letters, forgive the mistakes of others, and focus on using spelling/grammar conventions that are appropriate to the audience or reader. Using netiquette can improve communication, since it lays a common foundation for understanding electronic text and messages.

How Can This Paragraph Be Fixed?

Instructions
- Read over the draft paragraph below.
- Recommend revisions to improve the paragraph. As you read, ask yourself:
    - Are the sentences in the right order?
    - Are there sentences or information missing that would improve the paragraph?
    - Are there sentences or information that should be removed?
    - How can the language be improved?
    - Is there a topic sentence and a concluding sentence? If so, are they effective? If not, what should they be?
- Record your suggestions directly onto this sheet.

Paragraph Title: Smaller and Faster Technology

In 1965, Intel founder Gordon Moore proposed "Moore's Law." Moore's Law stated that approximately every year, the number of transistors in and speed of microprocessors would double. He was right! Currently, the number of transistors and speed of microprocessors currently doubles approximately every 18 to 24 months. Components continue to shrink in size and are becoming faster, cheaper, and more versatile. Back when the first computers were created in the 1940s, they were the size of an entire house, and had far less power than the computers we know today. The pioneers of computer technology could never have imagined how small and fast computers would become – or could they? Computers have gotten smaller and more powerful due to advances in microprocessor technology. For example, the Pentium 4 processor has 42 million tiny transistors on a microchip the size of your thumbnail. The tiny transistors replaced large vacuum tubes on early computers. As time goes one, more and more sophisticated microchip technology increases the speed and decreases the size of computer technology.

Writing Task

Select one of the following topics for a paragraph:
- How to purchase a computer
- The similarities and differences between word processing and desktop publishing software
- Your experience using e-business

In the space below, create a draft of your paragraph based on prior knowledge, information from your textbook, and/or Internet-based research. Use a separate page if you run out of space.

Topic sentence

Supporting sentences
(record in point form
on this worksheet)
These should:
- Support your main idea
- Provide enough details/support/ examples to make your point

Concluding sentence

In the space below, describe how you would convert the information above into slides using presentation software.

Slide 1	Title slide – topic, author name, date
Slide 2	
Slide 3	
Slide 4	
Slide 5	
Slide 6	
Slide 7	

Writing for a Purpose: Using Templates

Introduction to Information Technology In Business

When students can get the "picture" of a form of writing in their heads, they feel more confident about creating the final product. A template or framework is a skeletal structure for a writing form that allows students to organize their thoughts and researched information in order to write a first draft. Essay maps are another type of template.

Purpose
- Provide students with a template to scaffold their understanding of a form of writing and help them organize information before drafting the piece.

Payoff
Students will:
- learn the common expectations for the form and components of a particular writing assignment.
- organize their writing and ensure that it meets the requirements of the assignment.

Tips and Resources
- To help students understand how to construct a writing assignment, they may first need to deconstruct an example of the assignment. The same template that is used for structuring student writing can be used initially to analyze examples of a writing form. For instance, before having students use the template to write in a specific form, give them an example of the same kind of writing, (See **Sample Business Report.**) and have them use the template to identify the example's main idea, supporting details, transitional sentences, etc.. Using the template to deconstruct a piece of writing before writing their own version gives students an exemplar from which to work when they begin their own writing. This activity can also be done in pairs or in small groups.
- Use examples from the Ontario Curriculum Exemplars.
- Use examples found in the Ontario Business Studies Profiles.
- For more information, see:
  - Teacher Resource, *Writing a Procedure.*
  - Teacher Resource, *Template For Writing a Procedure.*
  - Teacher Resource, *Writing a Report.*
  - Teacher Resource, *Information Report Sample.*

Cross-Curricular Literacy: Strategies For Improving Secondary Students' Reading and Writing Skills, pp. 64-79.
Reading and Writing for Success Senior, Chapter 12.
Adolescent Literacy, Part III, Cross Curricular Connections, pp. 24-33, York Region District School Board.
Textbook with Business Report Preparation information such as: *Managing ITC Projects in Business.* Norbry Publishing, 2002. ISBN 1-55232-073-1 distributed by Nelson.

Further Support
- The template for any individual writing assignment can be revised to make the modifications or accommodations necessary for students with special needs. For example, reduce the number of paragraphs or supporting details, create differing expectations for research, or for the complexity of the main idea, etc.

Writing for a Purpose: Using Templates

BTT, Introduction to Information Technology In Business, Grade 9/10

What teachers do	What students do	
Before • Make overheads of the Student/Teacher Resources: *Writing a Business-Style Report, Sample Business-Style Report, Business-Style Report Template, Rating Scale for Business-Style Reports.* • Make photocopies and distribute the outline of a business-style report, and the sample report. • Read *Writing a Business-Style Report* aloud; discuss the parts of the report, the purpose and the payoff. • Model the method of deconstructing the business-style report using the first paragraph of part of the example. • Ask aloud, "What happens in this paragraph/part of the business-style report? • Answer the question: "The first paragraph is called a summary. In a few sentences, it gives me a sense of what this report is all about and provides the major recommendation." • Ask the students to work in groups of four to deconstruct the rest of the example. • Engage students in a whole-class discussion following their group work, and record responses about what happens in each part of the paragraph.	• Read the *Writing a Business-Style Report,* follow the teacher's oral explanation of a Business-Style Report • Read the *Sample Business-Style Report*, after the teacher completes the oral deconstruction of the first paragraph. • Work in groups of four to determine what happens in each subsequent paragraph or part of the sample by asking, "What happens in this paragraph/part of the piece of writing?" • Contribute responses to the whole-class discussion.	**Notes**
During • Distribute the template to students to help them consolidate their understanding of what happens in each part of the assigned business-style report. • Direct the students to use the template to organize the information they have prepared /researched for this assignment. • Monitor the students' work as they begin completing the template. • Begin completing the assigned business-style report.	• Begin the completion of the template by adding the information they have researched or prepared or it- e.g., results of data gathered through survey or background information searched on the Internet. • Begin the completion of the assigned business-style report.	
After • Assign a completion date for the template. • Assign a completion date for the business-style report. • Distribute *Rating Scale for Business-Style Reports*. Use pair peer editing of the completed template and business-style report. • Give direction fro peer-editing process. • Remind students that they are not responsible for correcting all the writer's errors, but that they can underline areas of concern, or circle words that should be checked for spelling or usage.	• Complete the template. • Peer-edit your partner's template. • Complete the business-style report. • Exchange pieces of writing with a partner. • Individually read and annotate the partner's work (circling, underlining, and writing questions or comments). • Remember that the writer owns the writing; therefore, the reader is not primarily responsible for correcting all the writer's errors. • Read the peer-editing checklist they receive. with their work and make the needed changes.	

Writing a Procedure

What is a procedure?

A procedure is a form of writing that informs the reader about how to do something. A procedure gives detailed instructions that the reader should be able to translate into action. Procedures could be written in science s class to outline the steps taken in an experiment, or as a step-by-step explanation about how to play a game created in response to a language activity.

In a procedure, you can do the following:

- Begin by identifying the topic or issue and the relevance or importance of knowing how to do the thing that is being explained. For example, writing a procedure for programming a VCR will help you make full use of the various features your VCR offers.
- Proceed by identifying the intent or goal of the procedure. What is it that will be accomplished if the reader follows the steps identified?
- Make a prediction, or create a hypothesis about what will happen if the steps are followed.
- Identify any equipment or materials you will need in order to complete the procedure.
- Write step-by–step instructions related to the procedure. Write in time sequence and provide as much detail as the reader will need to be able to follow the instructions an actually do what it is you are describing.
- Let your readers know how they will know if they have been successful.

How do you write a procedure?

1. Use an organizer such as a flow chart to plan the sequence you will describe. Make a list of the equipment or materials you will need.

2. When writing your instructions, think of who your audience might be. The age and interests of the audience will determine t your tone and choice of language. For example, if you were writing instructions for building a cabinet for a carpenter, they would be very different from instructions you would write if the reader had never built anything before.

3. In your conclusion, provide your readers with an indication of how they will know whether or not they have been successful.

Template for Writing a Procedure

Topic:_____

Introduction   • Topic/issue   • Relevance/importance/real-world connections
Aim/Goal (be brief – one sentence)   • What do you intend to do?   • What will you accomplish?
Hypothesis: A suggested answer or reason why one variable affects another in a certain way, or your educated guess about the outcome of your research.
Materials/Equipment/Ingredients: What do you need to perform this task?
Procedure/Method: What steps must you follow? What is the appropriate order for these steps?
Analysis/Confirmation/Testing: Did your process work? What did you learn from your procedure?

Writing a Report

What is a report?

A report is a form of writing that provides information. There are different types of reports. And they can be organized in different ways depending on the purpose and audience. However, a report is usually based on **researched facts** or on **accurate details** of a situation or event, not just on the writer's own knowledge. You might write a report for Introduction to Business comparing types of businesses, or you might write a report for Science class on the increasing uses of lasers as tools in industry and medicine. You might also write a report detailing the organization, costs, participation, and success of a certain event such as a concert or banquet. In business situations, or in science or medical journals, reports are organized with a summary (or abstract) at the beginning. The purpose of this summary is to give the person reading the report a sense of the main content. The rest of the report fills in the background information, the process by which the information was obtained, and makes recommendations.

How do you write a report?

1. Research you information, finding it in several different sources e.g., books, magazines, the Internet.

2. Take notes from your sources of the key details that you need. Be sure to record which information comes from which source so that you can give credit to your sources.

3. Use an organizer such as a chart, web, or sub-topic boxes to sort and classify your information into different areas for sub-topics.

4. When writing your introduction, think of who your audience might be. If your report is to be made orally to your classmates, you will want to catch their interest somehow, perhaps by referring to some personal experiences. If your report is for the teacher or fro an "expert" on your topic, you should be more formal and to the point, avoiding the use of "I" and being more objective.

5. Develop each sub-topic paragraph with an appropriate topic sentence that shows how the sub-topic links to the topic.

6. Make sure that your sub-topic paragraphs have a logical order and that they flow smoothly. Use sub-headings to guide your reader through a lengthy report with many sub-topics.

7. Write a conclusion that summarizes two or three main points you wish to make about your topic. Depending on the type of report, write several recommendations.

8. Give credit to your sources by acknowledging them. There are several correct formats for citing sources. One way is to list the sources alphabetically by the author's surname, following the pattern below:

    Bentley, George. *Laser Technology.* Toronto: Porter Books, 2004.
    Lawrence, Anita. *"The Laser Revolution." MacLean's.* March 6, 2000: 52-57.

    Another example, known as "APA format" follows this pattern:

    Bentley, G. (2004). *Laser Technology.* Toronto: Porter Books.
    Lawrence, A. (2000) *"The Laser Revolution." MacLean's,* 62 (35), 52-57.

Information Report Sample

Introduction:
Introduce topic and classify it or put it in a category e.g., "Lasers are an exciting new tool in industry and medicine."

In two or three sentences, give the reader a "map" of what you plan to do with the topic. Essentially you are naming your sub-topics e.g., " In industry and manufacturing, lasers revolutionizing both the design process and the production of goods. In medicine, lasers are changing surgical procedures with some remarkable results. The future possible uses for lasers are very exciting."

First sub-topic:
Define your topic and give some general information about it e.g., say what a laser is, and give some brief history. You may also choose to provide this information in your introduction.

Make several key points with information from your research.

Write a transitional sentence or question –e.g., "While lasers may be a marvel of physics, they have some very practical applications."

Second sub-topic: e.g., "Lasers in industry and manufacturing"
Make key points from your research.

Write a transitional sentence.

Third sub-topic: e.g., "Lasers in medicine"
Key points from your research:

Write a transitional sentence.

Conclusion:
Re-state some of your key points e.g., key uses of lasers in manufacturing, of key use in medicine, such as reducing blood loss in surgery.

Write an emphatic concluding sentence e.g., "It is likely that many more uses will be found for lasers as we learn the capabilities of this powerful tool."

Information Report Template

Introduction:
First sub-topic: Key points from your research: Transitional sentence:
Second sub-topic: Key points from your research: Transitional sentence:
Third sub-topic: Key points from your research: Transitional sentence:
Conclusion: Re-state some of your key points Write an emphatic concluding sentence

Student/Teacher Resource

Writing a Business-Style Report

What is a business-style report?

A business-style report is a form of writing that provides information in a uniquely organized manner for a specific audience. Like the report, it is based on researched facts or on accurate details of a situation or event, not just on the writer's own knowledge. The purpose of a business report is to convey essential information that is accurate, clear and concise. Business writing should be brief and to the point. The business-style report is always dated. Businesses change rapidly; facts and solutions change daily.

The business-style report is prepared to: help in decision-making, outline changes needed, give solutions to problems. The business-style report defines a problem or issue; presents data to analyze the problem or issue; draws conclusions; and, makes recommendations. Business-style reports are organized with the summary at the beginning. The reports are presented to busy people; many executives read only the executive summary or abstract (capsule version) of the report.

Parts of a Business-Style Report
- Executive Summary – three to five sentence summary of the facts
- Problem Statement – summarize the background to the situation
- Analysis – explain the investigative process
- Decision Criteria and Alternatives – the data generated is integrated
- Conclusion – proposed solutions based on data, objective statement of what the report has shown

Executive Summary: an abstract (capsulated version) of the report as a whole, briefly outlining the company's background, the problem, and the recommendations (in broad terms). The executive summary is prepared after all other parts of the report are completed, but appears at the beginning of a business-style report.

Problem Statement: outlines the problem in two or three sentences.

Analysis: includes all the data that has been collected.

Decision Criteria and Alternatives: data generated is integrated into the report in the form of the words, graphics, charts and tables.

Conclusion: is a section outlining what the report has shown with several recommendations that back up the main recommendation given in the executive summary. Remember you are trying to sell the management on your idea.

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[1] Adapted from *InsighTs: Succeeding in the Information Age*

Sample Business-Style Report

Executive Summary
Though Canadian Clothiers has a web presence the site is bland, has little appeal and allows minimal customer interaction. We recommended that an e-tail site, with database connectivity be created. The cost factors will be quickly offset by increased purchases and the benefits of a customer database. The website would enhance overall sales, and add shareholder value.

Problem Statement
Canadian Clothiers, a large clothing retailer, wants to increase shareholder value by turning their existing website into an e-tail site. Mr. Canuck, the president and CEO, wants to take advantage of the benefits of a more interactive website.

Analysis
Currently, Canadian Clothiers has a web presence. The website is informational, including product information, special sales, company information and locations. It is possible for website visitors to send a message to the Webmaster through a link to an email address. The site is uninspiring and hasn't much appeal.
The present web site does not allow for much interaction with the user. The company wants customers to be able to order merchandise online, and have it shipped to their homes. This would involve database connectivity which would add development and maintenance costs to running the website.

Decision Criteria
The hosting server would have to be capable of running a database over the web. The server would have to have the proper extensions to run whatever database is chosen, which would involve additional monthly website hosting fees. These fees will range from $75 to $125 per month. Additional development costs of $4500 to $5000 would have to be spent to upgrade the website. As well, additional personnel would have to be re-deployed or hired to manage the extra Website traffic. An alternative would be the web site company handling the database function. Quoted fee is $250 per month extra on top of the hosting fees.
With the increase in web business through the site, there is a danger that in-store business would decrease. The product offerings through the website should be different from the in-store clothing line, so hopefully overall business increases. Development of a unique clothing line brings extra costs to the business.

Alternatives
More information could be gathered about customer trends and preferences, which would help in future marketing. This may impact on the sales of the existing clothing line.
The company may wish to do a further cost/benefit analysis. Issues such as the cost of creating and running the site, and marketing decisions could be explored thoroughly to make a final decision.

Conclusion
Based on the above analysis, and weighing the various alternatives using the decision criteria, we recommend that Canadian Clothiers: upgrade the website to an e-tail site; develop a similar, but unique clothing line to market and sell over the web. Hire one additional person with web based database management skills to manage the website. This would be more cost effective than outsourcing this function. A more detailed customer profile would result from the additional information gathered through the online ordering. In addition, we think that the website would enhance overall sales, and add shareholder value.
- *An e-tail site, with database connectivity be created;*
- *Additional personnel be hired to manage the website;*
- *A unique line of clothing be developed to market through the website.*

Current Date

Web site Action Committee

Adapted from BTX4CP **Information Technology in Business Profile,** available online at www.curriculum.org

W

Student/Teacher Resource

Business-Style Report Template

Executive Summary:
Provide a three- to five- sentence summary of the facts and findings of your report.

Key recommendation:

Problem Statement (Introduction)
Summarize the background to the situation investigated.
This outlines the problem that has to be solved.

Analysis (First subtitle)
Explain:
- the process.
- How did you find the facts and information?
- What is the issue?

Decision Criteria (Second subtitle)
What key information and facts were discovered?

Alternatives (Third subtitle)
Key options or further steps are given.

Conclusion
Write several recommendations

Rating Scale for Business-Style Reports

Criterion	Level 1	Level 2	Level 3	Level 4
Accuracy	Report is incorrect in any or all parts	Accurate information in all parts of the report	Terminology and visual images are up-to-date and appropriate	High-level criteria used to judge the accuracy of researched information
Completeness/ thoroughness	Report is incomplete; parts missing	Minimum requirements met	All eight parts of the report present and focused	Thorough treatment of all parts of the report
Diversity/ comprehensiveness of viewpoints	Bias evident through distortions, omissions or misleading information	Material presents only one point of view	Content, treatment and vocabulary give the reader opportunities to think critically	Careful consideration to recognize and appreciate viewpoints or interests
Connectedness of content	Little or no connections made	Appropriate connection made in the problem description	Meaningful links in the problem description	Insightful, or imaginative description of the problem
Interpretation/ analysis	Unfocused interpretations or not all areas covered	Adequate interpretations on the identified areas	Interpretations complete with enough information to evaluate alternatives	Special or unusual interpretations to create emphasis or deepen understanding
Inquiry/ insight	Unfocused research or not all areas covered	Adequate research on basic areas	Evidence of thorough research	Highly effective strategies to gather information and generate ideas
Vocabulary and mechanics	Poor terminology, language, grammar	Adequate use of terminology, language, grammar	Good use of terminology, language, grammar	Exceptional use of terminology, language, grammar

O

Small-group Discussion: Group Roles

Introduction to Information Technology In Business

Students are divided into groups of a certain size – for example, five members. Each student is assigned a specific role and responsibility to carry out during the small-group discussion.

Purpose
- Encourage active participation by all group members.
- Foster awareness of the various tasks necessary in small-group discussion.
- Make students comfortable in a variety of roles in a discussion group.

Payoff
Students will:
- all speak in small groups.
- have specific roles to fulfill, clearly defining their role in the small group.
- receive positive feedback that is built into the process.
- participate actively in their learning.

Tips and Resources
- It is important to vary the composition of small groups, allowing students the opportunity to work with many classmates of various abilities, interests, backgrounds, home languages, and other characteristics.
- It is a good idea to repeat this activity throughout the year. This will allow students the opportunity to experience different roles and to improve their skills. Roles should not get in the way of learning.
- For examples of this strategy in use see: ***Developing and Organizing Ideas: Webbing, Mapping and More***, pp.108 - 109. The Student Resource, *Mind Mapping Hardware Components of a Computer Workstation,* outlines group roles. The strategy *Small-group Discussion: Jigsaw* has a Student Resource, *Expert Group Members and Roles* that indicates the specific roles of group members.
- Time the exercise to keep students focused on the task.
- If research is required, involve all students in the process, regardless of their role. This activity provides an excellent way for students to share research and come to a consensus about important information.
- For Role ideas, see Student/Teacher Resource, *Sample Role Sheet and Role Cards*.
- To encourage students to reflect on their learning, use Student Resource, *Small-group Discussion Reflection Sheet.*
- For more information, see
  - Student Resource, *Small-group Discussion Sample Role Sheet and Role Cards.*
  - Student Resource, *Small-group Discussion Task Sheet.*
  - Student Resource, *Small-group Discussion Reflection Sheet.*

Further Support
- Although it is important to vary the composition of groups, it is also important to consider the particular needs of struggling students.

Small-group Discussion: Group Roles

Introduction to Information Technology In Business

What teachers do	What students do
Before	**Before**
• Choose a topic for discussion or use the topic given in Student Resource, *Small-group Discussion Task Sheet*.	• Understand the question/task.
• Listing roles can helps students define the task; preparing and distributing role sheets clearly defines the student's responsibility. See, *Sample Role Sheet and Role Cards.*	• Understand their roles and responsibilities.
• For example: *Leader:* defines the task, keeps the group on task, and suggests a new way of looking at things. *Manager:* gathers and summarizes materials the group will need, keeps track of time, and collects materials the group used. *Note maker:* records ideas generated by the group, and clarifies the ideas with the group before recording. *Reporter:* reports the group's ideas to the class. *Supporter:* provides positive feedback for each speaker, makes sure everyone gets a turn, and intercepts negative behaviour.	
• **Or**, include the roles in the task handout. See *Small-group Discussion Task Sheet*.	
• Prepare an overhead transparency of the task sheet and copies for the students, or broadcast copies of the task sheet to students.	
• Collect chart paper, markers and material to display the finished T-charts.	
During	**During**
• Divide the class into groups.	• Understand the task.
• Use the overhead to present the parameters of the task.	• Understand their roles and responsibilities
• Explain the time limits and remind the expeditor to track the time.	• Fulfill the roles to the best of their abilities.
• Circulate around the room, ensuring that all students are fulfilling their roles.	• Use active listening skills.
• Comment constructively on group process.	• Act positively and encourage other group members.
• Have groups post their completed T-chart.	• Participate fully in the discussion.
	• Adhere to the time limits set by the teacher.
After	**After**
• Follow up by developing a master T-chart with the class.	• Take part in the whole class development of a master T-chart.
• Ask the students to individually complete an evaluation of the discussion process. See Student Resource, *Small-group Discussion Reflection Sheet.*	• Complete the *Small-group Discussion Reflection Sheet.*
• Debrief the whole class, asking students to comment on the success, benefits of the exercise.	• Discuss the successes and benefits of using structures/ rules in small groups.
• Plan to repeat this activity (with different topics), allowing students to try each.	

Sample Role Sheet and Role Cards

Role Sheet

Checker	• Makes sure everyone understands the task.
Scout	• Visits other groups to get more information.
Pacer	• Keeps the group moving and focused on the task.
Encourager/Supporter	• Repeats or rephrases what's been said while providing support and encouragement.
Facilitator	• Makes sure everyone contributes.
Expeditor	• Collects all necessary material for the group and makes sure the group meets the timelines.
Summarizer/Reporter	• Pulls together the conclusions and works towards group consensus.
Scribe	• Takes notes for the group.
Noise Monitor	• Ensures that the class has the quiet they need to work.

Sample Role Cards

Leader
- Does everyone understand what we're doing?
- Have you thought about this in another way?
- We're getting off topic; let's get back to the task.

Manager/Expeditor
- Here are the materials we'll need. This is what I think we should look at.
- We have_____minutes left.
- Now that we are finished, let me gather the materials.

Scribe/Note-maker
- Would you repeat that so that I can write it all down?
- What do you mean by that?
- Let me read to you what I've written so far.

Reporter
- Let's review the scribe's notes.
- Does anyone have anything to add before I report to the class?
- Does anyone have any suggestions on how to report to the class?

Encourager/Supporter
- Really good point.
- We haven't heard from_____yet.
- Please don't interrupt; you'll get your turn.

Small-group Discussion Task Sheet

The Task

You are a team of Career Consultants. Together discuss and make a list of careers that require an understanding of information technology. Your client has also asked you for to identify local employers that may require employees who have knowledge of information technology. Remember the brainstorming rule: ACCEPT ALL IDEAS.

The Team

Pacer is carrying the most books today	Keeps the group moving and focused on the task. • Does everyone understand what we're doing? • Have you thought about this in another way? • We're getting off topic; let's get back to the task.
Scribe has a birthday closest to today	Takes notes for the group. • Would you repeat that so that I can write it all down? • What do you mean by that? • Let me read to you what I've written so far.
Expeditor travels the longest distance to school	Ensures that the class has the quiet they need to work. • Here are the materials we'll need. This is what I think we should look at. • We have____minutes left. • Now that we are finished let me gather the materials.
Facilitator has the most letters in their last name	Makes sure everyone contributes. • Really good point. • We haven't heard from_____yet. • Please don't interrupt; you'll get your turn.

The Product

Your team needs to produce a T-chart with a list of the info tech careers on one side and local employers that use Info Tech people on the other side.

Small-group Discussion Reflection Sheet

Name:

Role:

Topic: Info Tech Careers and Area Employers

1. Comment on your **group's ability** to work together in a positive manner. Consider cooperation, listening, and organization.

2. What are your group's strengths?

3. What are   your group's areas for improvement?

4. Comment on your **own ability** to work in a positive manner. Consider cooperation, listening, and organization.

5. What are your strengths?

6. What are your areas for improvement?

7. Comment on your success in fulfilling the role you took.

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Small-group Discussion: Place Mat
Introduction to Information Technology In Business

In this easy-to-use strategy, students are divided into small groups, gathered around a piece of chart paper. First students think about a question and write down their ideas on their own section of the chart paper. Then students share ideas to discover common elements, which can be written in the centre of the chart paper.

Purpose
- Give all students an opportunity to share ideas and learn from each other in a cooperative small-group discussion.

Payoff
Students will:
- have an opportunity to reflect and participate.
- have fun interfacing with others and extending their learning while accomplishing the task.

Tips and Resources
- The strategy can be used with a wide variety of questions and prompts, for example:
    1. "Have the recent changes in information technology had a positive and/or negative impact on business working conditions?"
    2. "Describe major issues related to security on the Internet."
    3. "What are some ethical issues of data sharing?"
    4. " Explain the content and purpose of an Internet acceptable use agreement?"
    5. "Determine criteria to evaluate websites in terms of validity, bias and usefulness."
- Use the place mat strategy for a wide variety of learning goals, for example:
    - to encourage students to share ideas and come to consensus on a topic
    - to activate the sharing of background knowledge among students
    - to help students share problem-solving techniques in mathematics and science
    - to take group notes during a video or oral presentation.
- Groups of 2 to 4 are ideal for place mat, but it can also work with up to 7 students in a group.
- You may choose several questions or issues for simultaneous consideration in a place mat strategy. To start, each group receives a different question or issue to work on. Once they have a completed their discussion, the groups rotate through various questions or issues until all have been explored.
- Place mat also works well as an icebreaker when students are just getting to know each other.
- For a sample place mat, see Teacher Resource, *Pl*ace *Mat Template and Example.*

Beyond Monet, pp.172-173.

Further Support
- Give careful consideration to the composition of the small groups, and vary the membership according to the students' styles of learning and interaction, subject-matter proficiency, and other characteristics.
- Some students may benefit from being able to "pass" during group sharing.
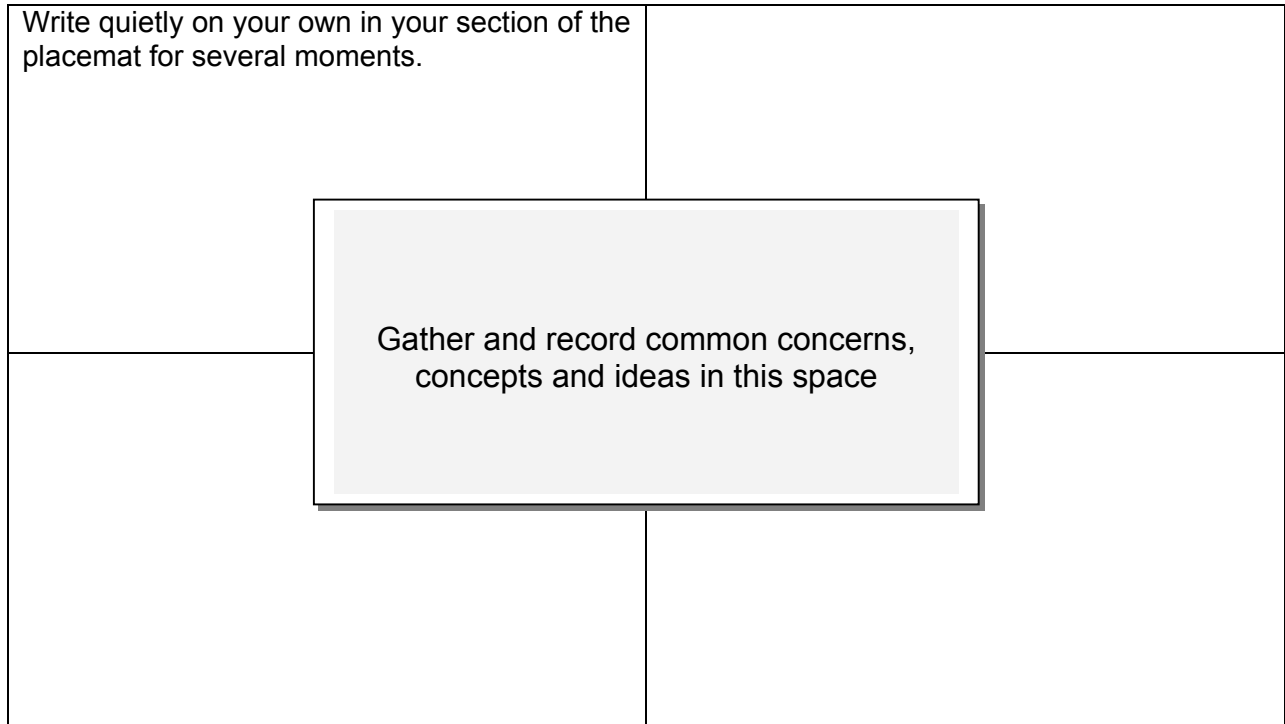
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Small-group Discussion: Place Mat

Introduction to Information Technology In Business

What teachers do	What students do	Notes

Before
• Divide students in groups of 4.
• Step 1: Teacher Model - Using Teacher Resource, *Place Mat Template and Example,* as a guide, explain and model the Place Mat technique to students either on the chalkboard or using an overhead transparency.
• Step 2: Teacher and Whole Class -Make an overhead of the second Teacher Resource, *Place Mat Template and Example* and ask the students to complete the center as the teacher notes the responses on the overhead.
• Select a question or topic for students to explore using "Place Mat." Examples include:
   - Why is ergonomics important?
   - What do we know about copyright law?
   - What do we know about viruses?
   - What is the role of an operating system?
• Another option is to list the questions found in **Tips and Resources** and assign one for each group.
• Distribute chart paper to each group.
• Ask the students to divide the chart paper into sections equal to the number of students in the group, leaving a circle or square in the centre of the chart. Note: this middle section can be omitted, depending on the learning task involved.
	• Contribute to the class discussion on the Example Questions on the criteria you think should be used to evaluate a web site in terms of validity, bias, and usefulness.
	
	• Divide the chart paper into sections.	

During • Direct each group member to think about, and then write silently about the question or topic in his or her personal area of the chart paper for a determined amount of time.	• Gather their thoughts about the chosen question or topic and write silently in their own area of the paper, respecting the space and silence of all members of the group.	
After • Give a signal for students in each group to discuss their ideas and experiences and find common elements or ideas. • Have students post the charts to share their group's thinking with the class. • In a large group discussion, compare all groups' results with how the topic is presented in the classroom textbook or other classroom reading. Identify gaps in both. Record the differences on a separate sheet of chart paper.	• Take turns sharing ideas with the group. • Engage in discussion with all group members to arrive at common elements or ideas. • Record common ideas in the centre of the placemat (if so directed by the teacher). • Use oral skills, such as active listening, requesting clarification, and coming to consensus. • Circulate the charts around the room so that groups can compare. • Compare results of groups to information in another source (i.e., textbook or other reading) to identify gaps. • Contribute to class discussion to create a list of differences between class and textbook topic/question content.	

Place Mat Template and Example

Write quietly on your own in your section of the placemat for several moments.	

Gather and record common concerns, concepts and ideas in this space

Example: take a few minutes to think about and write down what you know about safety and security when using the Internet.

• keep you password a secret • don't leave your computer on when you're not there	• don't open attachments on e-mail unless you are expecting them • do not open disks from unknown sources • use anti-virus software to protect yourself from viruses
• use a firewall • don't share personal information over the Internet • be wary in chat environments; do not agree to meet strangers you encounter online	• disconnect high speed Internet when not in use • use encryption for all online information • delete personal information that does not need to be on your computer

IT SAFETY & SECURITY

Computer users need to be careful

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Teacher Resource

Place Mat Template and Example 2

Example question:
Take a few minutes to think about and then write down in you own section of the border the criteria you think should be used to evaluate a web site in terms of validity, bias, and usefulness.

Six-person Place Mat

	Through group sharing of ideas and experiences, gather common concerns, concepts, and ideas in this section of the place mat.	

Does the site have age, race, and gender bias?
Where does the information come from?
How credible is the source?

-Narrow point of view *-Only one side of an argument* *-easy to understand*	Through class sharing of ideas and experiences, gather common concerns, concepts, and ideas in this section of the place mat.	*Is the information well organized?* *Is it easy to find specific data?* *Can I understand the info?*
Is it: *- easy on the eyes* *-appropriate* *-references given*		*Is the info timely and relevant?* *-errors* *-no references* *-accurate*

Is the information difficult to access?
Is the site designed to inform or lead you to specific products and services?
Is the information difficult to understand?

Small-group Discussion: Jigsaw

Introduction to Information Technology In Business

Jigsaw is a complex form of cooperative learning and it is important that students have experience with small group learning skills before they are involved in jigsaw. Jigsaw is a cooperative learning technique that provides students with an opportunity to actively help each other in their learning. Each student is assigned to "home groups" of three to five, and an "expert group" consisting of members from different home groups. Students meet in their expert group to discuss specific ideas or solve problems. Then they return to their home group, where all members share their expert knowledge.

Purpose
- Encourage group learning and sharing in a particular task.
- Provide struggling learners with more opportunities to comprehend meaning and ask for explanations than they would normally.

Payoff
Students will:
- increase their comprehension and have a compelling reason for communication.
- receive support and clarification from other students.
- share responsibility for each other's learning as they use critical thinking and social skills to accomplish the learning task.
- gain self-confidence through their contributions to the group effort.

Tips and Resources
- Create mixed-ability expert groups so that students of varying skills and abilities have the opportunity to learn from each other, as they become experts on the material.
- As students enter the classroom, hand out cards with the expert group numbers or symbols on them, in order to manage the logistics of breaking into expert groups. The tasks can be also be coded in this manner for easy distribution. Each expert group is assigned one piece of software to explain to the class.
- Have the expert groups make electronic presentations to the entire class on their software application. During the presentation, each student takes cumulative notes or fills in the information organizer, resulting in a complete picture when all the presentations have been done.
- As another option, have the students in the expert groups return to their home groups and share the researched information instead of preparing and presenting an electronic presentation. Supply the summary chart to guide students in organizing the experts' information into a cohesive and meaningful whole.

See the following resources:
Teacher Resource, *Software Applications Research*
Student Resource, *Expert Group Members and Roles*
Student Resource, *Software Categories and Uses Chart*

Beyond Monet, pp. 158-159.
Reading, Writing, and Learning in ESL, pp. 337-338.
Teaching Reading in Social Studies, Science, and Math, pp. 264-266.

Further Support
- Give students a framework for managing their time on the various parts of the jigsaw task.
- Circulate to ensure that groups are on task and managing their work well. Ask groups to stop and think about how they are checking for everyone's understanding and ensuring that everyone's voice is heard.

Small-group Discussion: Jigsaw

Introduction to Information Technology In Business

What teachers do	What students do
Before	**Before**
• Choose the software applications to research. See list on Teacher's Resource, S*oftware Applications Research.* • Assign each student to a "home group", the number in the groups will depend on the number of applications researched. One expert in each group for each software application researched. • Make overheads of the handouts provided: Teacher Resource, *Software Applications Research;* Student Resource, *Expert Group Research Action Plan;* Student Resource, *Expert Group Members and Roles; Software Categories and Uses Chart.* • Distribute Student Resources in hard copy or through the class network.	• Meet briefly in the home groups before breaking off into the expert groups.
During	**During**
• Ask the students to brainstorm the different software. Go over the software applications using *Software Applications Research* overhead. • Distribute the student handouts. • Establish the guidelines for the project showing the overheads of the student handouts. • Have the various expert groups meet and prepare the presentation. • Remind students that the experts will be returning to home groups to review the presentations and help check the summary chart for accuracy. • Direct students to fill in the *Software Categories and Uses Chart* during the presentations*.* • Convene home groups so that each student can share his or her expertise.	• Work together to make sure that all the group members become experts on the required research. • Ask the teacher to clarify any instructions they are still unclear or confusing. • Develop and present an electronic presentation that covers the research questions. • Fill out the summary chart as you listen to the presentations. • After the electronic presentation return to home group and review the presentation material, monitor the comprehension by asking questions and rephrasing the information until it is clear. • Act as the 'expert for accuracy on your part of the *Software Categories and Uses Chart*.
After	**After**
• If appropriate, convene the class as a whole group to review and share learning or to enable expert groups to present to the entire class. • Have students reflect on the communication they used to help all group members understand the material.	• Ask the teacher to clarify any information or ideas that are still unclear or confusing. • Discuss what communication helped them to understand the material explained by others.

Notes

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Software Applications Research

Software applications are programs that make common tasks easier; they entertain, instruct, and increase productivity.

Originally software fell into three categories.

- *Word Processing*
- *Spreadsheets*
- *Databases*

Today we have many software categories and a variety of programs within each category.

- Accounting
- Computer Aided Design
- Desktop Publishing
- Electronic Presentations
- Image Editing
- Internet Browser
- Multimedia
- Paint Programs
- Portable Document Formatting Software
- Project Management
- Web Site Design

Research Steps

1. Home Groups meet and each teammate is assigned different software to research.
2. Research groups meet; the students with the same assigned material together research and prepare an electronic presentation to teach the software material.
3. Research group rehearses, fine-tunes, and presents the presentation.
4. Students individually fill in the **Software Categories and Uses Chart** as they observe the various presentations.
5. Home groups reconvene and teammates take turns orally reviewing the presentation and helping the home-group members check the **Software Categories and Uses Chart** for accuracy.

Mastery

- ✓ Whole class debriefing

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Expert Group Members and Roles

Task
Your task is to develop an electronic presentation tutorial.

Together you:
- ☐ research your assigned software application;
- ☐ study the software application;
- ☐ answer the research questions on the Action Plan;
- ☐ plan ways to design an effective electronic presentation;
- ☐ develop and present the electronic presentation;
- ☐ plan ways to teach the information when you return to your home group.

Example roles:
Manager, Note-taker, Researcher, Electronic Presentation Developer, Presenter

Name	Role (make notes on what the job entails)	Assigned Tasks

Software Categories and Uses Chart

Software Category	Definition and/or Characteristics	Uses
Word Processing		
Spreadsheets		
Databases		
Accounting		
Computer Aided Design		
Desktop Publishing		
Electronic Presentations		
Image Editing		
Internet Browser		
Multimedia		
Paint Programs		
Portable Document Formatting Software		
Project Management		
Web Site Design		

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Small-group Discussions: Discussion Web

Introduction to Information Technology In Business

In this strategy, students begin sharing their ideas in pairs, then build to a larger group. The discussion web provides practice in speaking, reading, and writing.

Purpose
- Give students the opportunity to develop their ideas about opposing sides of an issue and share them with classmates in a situation that requires critical thinking.

Payoff
Students will:
- be involved in discussion and critical thinking.
- take responsibility for developing and sharing their ideas.
- reflect on their won developing discussion skills.

Tips and Resources
- The discussion web works well in a variety of contexts. For example:
  - "What are the morally right and wrong ways to use a computer?"
  - "Do computers invade our privacy?"
  - "Should the Internet be censored?"
  - "What information is proper/improper to store?"
  - "Have computer games had a positive and/or negative impact on violence?"
- The strategy guides students to think about an issue and gather evidence for both sides of the issue. It is important to choose an issue that has well-defined positions "for" and "against" a proposition.
- Model the process thoroughly to show how the discussion web works before having the class engage in the discussion web activity. See the Teacher Resource, *Discussion Web T-chart Example*.
- Prepare a T-chart graphic organizer for students to organize their supporting arguments. See Teacher/Student Resource, *Discussion Web T-chart Organizer*
- Sample readings on a variety of topics for discussion webbing can be found in *InsighTs: Succeeding in the Information* (Toronto: Nelson, 2000). Examples of readings in this book relevant to this activity include: E-Mail Netiquette (p.188), What Do You Think? (p. 191), The Business World and Ethics (p. 270), Ethical Implications in the Age of Information (pp. 272-281), Case Study: Bill C-6 Affects E-Commerce (p.275), Intellectual Property (pp. 289-291).

Teaching Reading in the Content Areas, pp. 160-162.
Teaching Reading in Social Studies, Science and Math, pp. 269-273.

Further Support
- Some students may need support with note taking while they read, or clarification about arguments that support each side of the issue.
- Have students fill out the Yes/No, Positive/Negative T-chart together in pairs.

Small-group Discussions: Discussion Web

Introduction to Information Technology In Business

What teachers do	What students do
Before • Use before-reading strategies to prepare students before assigning a reading selection on a relevant topic. (See *Tips and Resources* for specific reading suggestions). • Target a particular position or point in the reading selection and explain that students will read the selection and construct support for and against the point or position in the reading (e.g., genetically modified crop growing should be expanded; cities should offer free public transportation on smog days). • Present the discussion web question to the class.	**Before** • Read the selection chosen by the teacher. • Think about the point made or position stated in the reading selection. Individually try to construct support for both sides of the issue.
During • Explain to students that they will have to develop support for both viewpoints by citing specific reasons. • Allow enough time for students to contemplate and write down reasons for each viewpoint. • Put students in pairs to share their written ideas. • Combine two pairs of students and have them compare their ideas and form a conclusion on which viewpoint to support. • Call on a representative from each group to share the group's conclusion with the class.	**During** • Think about and individually record ideas on both sides of the issue, using a T-chart format. • Share ideas with a partner, adding any missing ideas to their T-chart. • Move on to sharing ideas in a group off our, adding any additional points to the T-chart; the larger group must then decide which side of the issue to support, based on both the quantity and quality of the arguments on each side. • Reach a conclusion as an entire class about the viability of each position.
After • Follow up by asking students to individually write a paragraph about their own position and the reasons for taking it. • Provide time and a framework for students to reflect on the discussion skills they used during the activity, their strengths, and how they can improve.	**After** • Write about their position and reasons for it. • Reflect on the discussion skills they used and how they can improve their participation and effectiveness in small-group discussions.

Discussion Web T-chart Example

Telecommuting is a modern phenomenon that is increasing dramatically. Employees work at home. They communicate with other company employees using fax machines, email, computers, telephones and video conferencing.
There are both advantages and disadvantages of telecommuting for the individual, the employer/business and society.

Question:
What are the advantages and disadvantages of employees working at home?

Advantages	Disadvantages
Individual reduced travel time more family time fewer distractions save money on clothes, car expenses manage you own hours	**Individual** hard to get away from work little social interaction upper management doesn't see you
Employer/Business less office space needed reduced days off/sick time	**Employer/Business** loss of direct control group work more difficult may need to supply the technology security
Society fewer cars on the roads less pollution easier for people with special needs	**Society** less gasoline tax collected loss of revenue to dry cleaners, restaurants ,etc.

Student/Teacher Resource

Discussion Web T-chart Organizer

Question/Issue:

Advantages	Disadvantages