MINISTRY OF EDUCATION

SECONDARY SCHOOL

GRADE 9

Information Technology Curriculum Guide

CONTENTS

PREFACE

Information Technology Curriculum Guides, Grades 7 to 11, were produced in 1999. These Curriculum Guides (draft) were designed to make all students computer literate and allow teachers to use the computer as a tool for teaching any subject of the school curriculum. The documents covered three major aspects of Information Technology: (i) Information Technology Theory, (ii) Word Processing, and (iii) Spread Sheet.

The Guyana Education Access Project (GEAP) with the help of the Secondary School Reform Project (SSRP) and the National Centre for Educational Resource Development (NCERD) have collaborated to supervise the revision of the draft IT Curriculum Guides produced in 1999. Since these Guides have been in use for more than three years, it is imperative to update them and keep them within the new developments that have since occurred.

Other key contributors in the revision process were a number of GEAP trained Information Technology Administrators (ITAs) taken from Regions 6 and 10. These ITAs are still teachers of Information Technology in Secondary Schools and Schools with Primary Tops.

The Objectives of the Revised National Information Technology Guides are to:

1. Guide the teaching of Information Technology in schools.
2. Help teachers improve their Information Technology skills.
3. Help to prepare students for Information Technology at the Caribbean Examination Council (CXC) and Caribbean Advanced Proficiency Examination (CAPE).
4. Serve as a tool for students who choose not to write IT CXC or CAPE but need to have a working knowledge of IT for the world of work.

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INTRODUCTION

It is our understanding that Information Technology requires immediate practical application on a computer in order to ensure a student's understanding and retention of the material. Without quality time spent practicing on a computer, a student cannot be qualified as literate in Information Technology. This Curriculum Guide has been developed based on this understanding and encourages those educational professionals who choose to institute the IT Curriculum in their schools to have adequate computer facilities to do so. For example, if your school does not have power and/or computer labs, then you do not have to institute the IT Curriculum.

If on the other hand, your school does have computers, you might consider the following suggestions for integrating IT into the school curriculum with a limited number of computers:

- *Administrative Uses* – Teachers could be encouraged or required to use word-processing, spreadsheet, and educational software to develop their lesson plans, type up their class lists, keep their students' grades and attendance records, and submit all their other administrative work to the Headmaster or Principal. This would allow for the development of a solid foundation of basic IT skills among the teaching staff and perhaps later contribute to the full integration of IT into regular subject areas or the eventual implementation of the IT Curriculum at the school.

- *Teaching* – Teachers could use the computers as a presentation and demonstration tool to teach another subject or to show how a practitioner of that field (e.g. Scientist, Mathematician, Social Scientist, Artist, Academic, Poet, Writer, etc.) would use the computer to solve a particular problem, complete research, or achieve their objective.

- *Word-processing* – Students could be encouraged or required to type up and submit their school assignments using word-processing software available on the computer.

- *Spreadsheet* – Students could be encouraged or required to create tables, graphs, and complete their Maths or Science assignments or supplement their research assignments with capabilities available on spreadsheet software.

- *Educational Software* – Students could be encouraged or required to use encyclopaedias, typing programs, and other educational software to supplement and complete their assignments from other subjects.

In these cases, the computers would be made available on a timetable basis to teachers and students who have been given a basic introduction to the facilities and their care and maintenance.

The IT Curriculum Guide should be used as a guide only. It should not be adhered to slavishly if it is inappropriate for the technical and human resources available to the school. If the entire curriculum cannot be covered in the course of a year, then it is up to the instructor to determine the most important topics for review.

ACKNOWLEDGEMENTS

Content Rationale for Grade 9 IT Curriculum Guide

Building on Grade 7 and Grade 8, the overall objective of the Grade 9 IT Curriculum Guide is to achieve functional computer user literacy. The topics chosen and the order they are placed in were therefore chosen with care and precision to enable the attainment of this goal. The rationale for each topic and the order of their importance are explained below to give teachers and instructors an overall view of what this curriculum guide is attempting to accomplish

Priority	Grade 9 Topics	Objective/Reason
1	Computers and Society	Students should think about all the implications and impacts that new technology has on various aspects of society. Not all impacts are positive and not all are negative. General discussions and scenarios provided should provoke student thought about weighing the advantages and disadvantages of introducing new technologies into society in an effort to understand world discussions on topics such as globalisation.
2	Information and Communications Technology	Build on students knowledge of every day technology e.g. telephone, TV, radio, computers, to analyse how technology has positively impacted communications. Students should begin to grasp on a basic level how these various technologies work together to improve local and global communications.
3	File management - creating/re-naming, copy, paste, move, and deleting folders and files	Students should be confident in managing their own folders in an organised way so they can recognise the filenames and determine a file or folder's content. Students should be using appropriate naming guidelines for their files and folders and be able to copy, paste, move and delete files and folders without either losing files or accidentally deleting them.
4	Introduction to and creating simple Databases	The primary objective in this topic should be the development of planning skills to plan how information can be organized, stored, and manipulated. Students should then be able to execute that plan by creating a one table, single dimension database to record and store the information collected.
5	Introduction to Presentation and Slide Show Software	Encourage students to use technology to present information. The emphasis in this topic should not be on all the features of the software but rather on the creative way in which a student uses the software to present information. Design concepts from Grade 8's Introduction to Desktop Publishing should be revisited and used to aide in evaluation of the presentations.
6	Software Integration - Multi-tasking	Introduce to students the computer's ability to perform more than one task or run more than one program at a time. Students should be able to switch between several programs running on their machine. Use students knowledge of various programs and develop an understanding of how parts of one document can be integrated with another to produce effective results e.g. a graph in spreadsheet software can be cut and pasted into a word processing document.

Content Rationale for Grade 9 IT Curriculum Guide

Priority	Grade 9 Topics	Objective/Reason
7	Formatting and Printing Spreadsheets	Use the computer to format, layout, and preview the items from a spreadsheet that need to be printed. Use print preview to ensure that print outs are in a presentable format and do not waste paper.
8	Advanced Word - Printing envelopes and labels, Mail-merging	Recognising that students will be required to perform some level of office administration, the basics of printing envelopes and labels using Word Processing software is introduced. To further the practice of software integration, mail merging or document merging encourages the use of two programs to produce time saving documents, labels, or envelopes to mail. Students should feel comfortable with the use of mail or document merging in order to save time on typically repetitive tasks.
9	Binary Number System	Provides a basic introduction to the Binary Number System which forms part of the IT CXC requirements.
10	Compilation of Terms used in Grade 9	Building upon the lists from Grade 7 and 8, students should try to keep a list of all the terms they have been introduced to during the course of Grade 9. The instructor may take some time to review of all the terms introduced and their definitions to ensure that students understand the definitions and their use. The emphasis here should be on the understanding and application of the terms, not on the rote learning of complicated definitions.

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| Topic | Learning Objectives | | | | Content | Methods / Strategies / Materials | Evaluation | Areas of Integration |
	Skills	Knowledge	Understanding	Attitude				
Computers in Society	Differentiate between the positive and negative impacts of technology on employment.	Identify the ways in which technology is improving the way we work. Identify the positive and negative effects technology has on employment.	Technology impacts society in different ways. Each can have a positive or a negative influence e.g. employment has been both created and eliminated, certain jobs and job roles have been made redundant, the places from which people work, and the number of work hours have changed.	Appreciate that technology impacts society both positively and negatively. Willingness to continuously educate oneself on positive and negative impacts of technology and identify actions people can take to minimize some of the more negative aspects.	Organisations are increasingly relying on technology to increase efficiency in the workplace and improve standards of work. Some jobs have been made redundant due to technology replacing human labour. Others have been created in the field of IT and communications due to advances in technology. Many jobs have changed in their roles and responsibilities. People are working from home, working more hours, and can work from anywhere in the world. This has retraining and educational impacts on society.	Name and identify some recent technological developments. Discuss how they have impacted employment. Make a list of some of the negatives and positives that advances in technology could cause. Discuss and/or debate them to determine if experiencing these positives and negatives are eventually positive or negative experiences for society as a whole. Visits to corporations (where possible) to observe how they rely on technology and identify some new jobs that were created, and existing jobs that have changed as a result of the introduction of IT.	Do students understand that there are pros and cons to the way technology has changed working life? Do students understand that these pros and cons can influence employment trends in society?	Social Studies, Economics: Employment trends and job roles. English: Role play, written reports, group discussions. Guidance: Skills required in the world of work.

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Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
Computers in Society continued.	Differentiate between the positive and negative impacts of technology on information.	Understand that data and information is more accessible and more people are able to make data and information easily available.

Recognise that more data does not mean better quality. | Recognise that technology impacts society in different ways.

Each can have a positive or a negative influence. | Appreciate that technology does not always bring positive benefits to a society. | Data is collected and stored in vast quantities for various reasons.

Organisations have access to more databases of information.

Databases can be sold to organisations for marketing purposes. | Name and identify some recent technological developments.

Discuss how they have impacted on the transmission, availability, and quantity of information. | Do students understand that there are positives and negatives to the way technology has changed the availability and security of information? | Social Studies: Freedom and privacy of information, health and safety, surveillance and freedom, police interaction, communications, media, and impact of availability of information on society. |

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
		As a result, security, confidentiality, and the ability to verify or validate the reliability of the data or information being presented is key.	Students should have an awareness of the impact of technology on freedom of information, privacy, security, and confidentiality.	Students should be aware of some of the negative aspects and realise some of the actions we can take to minimise them.	The privacy of individuals' data is being eroded. As communications technology increases, access to private data becomes easier and security needs to be increased. Use of passwords and authorised personal access is necessary.

As more and more data is stored, there is increased risk of inaccuracy. Verification checks take time and are not always carried out. | Identify measures that can be taken to ensure confidentiality and security of data.

Visits to corporations (where possible) to observe how they rely on technology and identify some new jobs that were created, and existing jobs that have changed as a result of the introduction of IT.

Observations/discussions of what security measures they take. | Do students understand how these positives and negatives impact their daily lives? | English: Role play, written reports, group discussions. |
| Computers in Society continued. | Differentiate between the positive and negative impacts of technology on society. | List and explain how the introduction of technology has social impacts on how society functions. | Recognise that technology impacts society in different ways. | Appreciate that technology does not always bring positive benefits to a society. | Health and safety issues e.g. repetitive stress injury, back problems, eye strain.

Unsupervised use of the internet e.g. children having access to pornographic sites. | Name and identify some recent technological developments.

Discuss how they have impacted on society. | Do students understand that there are pros and cons to the way technology has changed society? | English: Role play, written reports, group discussions. |

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
		Identify some examples of areas of society where technology has a positive or negative impact. These could include healthcare, safety and security, government, and economics.	Each can have a positive or a negative influence.	Students should be aware of some of the negative aspects and realise some of the actions we can take to minimise them.	Police use of technology e.g. networked databases and electronic fingerprinting can ensure that knowledge of criminals is not localised. The use of surveillance cameras can be said to impinge upon an individual's freedom. E-commerce can enable small local businesses to sell directly to foreign consumers and businesses. E-government can improve efficiency and reduce cost for administration.	Make a list of some of the negatives and positives that technological advancements could incur. Role play a scenario of one positive aspect in improved communication e.g. like police catching bandits. Identify measures that can be taken to ensure confidentiality and security of data. Observations/ discussions of current security measures taken by businesses, governments, and various organisations in the community and internationally.	Do students understand how these pros and cons impact their daily lives?	Social Studies, Economics: Discuss how technology has changed interactions between groups of people, society, government, economics, and life as we know it.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
Information and Communications Technology (ICT)	Identify the different purposes of electronic devices e.g. oral communication requires a telephone or cell phone.	Definition and uses of electronic communication devices.	Technology is constantly changing and improving our methods of communication.	Appreciate that technology is constantly changing and we need to keep up to date with those changes.	Technology used to communicate: Electronic devices such as facsimile (fax), pager, computer, telephone, satellite communications, PDA (personal data assistant).	Discussion of types of electronic communication devices, where possible teachers should show the devices. Students make a list of some of the devices found within their community and give a presentation on what they are used for. Discussion on how the use and availability of these devices have impacted their family, community, and their own ability to communicate with others.	Can students identify the different purposes of electronic devices used for communication purposes? Can students evaluate the positive and negative impacts of the availability and use of these devices?	Social Studies, Economics: Discussion on how communication in society has changed because of information and communications technology.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
	Identify devices or resources used for researching and exchanging information.	Definition and uses of research and information resources.	Information is becoming more easily accessible due to the improvements made in technology.	Appreciate that information is constantly changing and we need to keep up to date with those changes.	Technology used as a source of information: web sites, CDRoms, databases, files available on the Intranet.	If students have access to educational CDRoms and the internet, encourage them to access information. Discuss the source of the information focusing on evaluating its validity and possible bias.	Do students know how to access IT devices for research purposes? Do students know how to conduct research using these devices?	Social Studies: Evaluation and reliability of source information. Language: Oral presentations, reports, comparisons
Information and Communications Technology (ICT) continued.	Evaluate sources of information and determine whether information is reliable. Record bibliographic source of information in the proper manner for future reference.	Some research and information resources are better than others. Using traditional indicators like author, title, publisher, date of publication, and awards or merits can help students determine whether information they find is reliable.	Recognise that some devices provide source information whilst others allow exchange of information. All information gathered must be evaluated for validity. The source of that information must be recorded for future reference.	Appreciate that not all information is accurate or reliable, but has to be validated with other sources, especially if it is from a biased source.	Source information: web sites, CDRoms, databases. Indicators to be used for validation and recorded as source of information: author, title, publisher, and date of publication.	Observing the type of information each source may provide e.g. visual, audio, written notes and be able to identify through discussions the limitations of each source. Students should have access to CDRoms and the internet (if available). A discussion of the source of the information should focus on the bias, if any.	Can students use source information efficiently for research purposes? Can students record the bibliographic source of information in the proper manner for future reference?	Social Studies: Evaluation and reliability of source information. English: Record bibliographic information from source of information.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
	Identify how the different technological devices communicate with each other.	Describe local and wide area networks. Use these networks to research, access, exchange, and communicate information.	Recognise that some devices provide source information while others allow exchange of information. How devices work together to provide communication networks in order to source and exchange information.	Appreciate the complexity and simplicity of the power of networks.	How technology communicates: cables, satellite, radio and microwaves. Networks: Local Area - within an organisation e.g. a computer lab in a school (intranet) and Wide Area Networks - outside the local area e.g. a banking system, the internet.	Use drawings to help students understand how technology communicates through cables, telephone networks and via satellite. Discuss the difference between LAN & WAN. Have students use the school's LAN and internet connection to perform research, access, exchange, and communicate information.	Do students understand how communications and information can be transmitted over local and wide area networks?	Geography: Effective communication relating to distance and location.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
File Management	Create folders	Create new folders using the appropriate operating system program or tool.	Understand that all data and programs on the computer are stored as files and that folders are an easy way to organise files. Files can be grouped in one folder and related folders can be grouped in one general folder.	Willingness to keep items on the computer in order by using folders and descriptively naming files and folders.	Discuss the directory tree (organisation of folders, sub-folders and files on the computer). Create a folder. Practice using good descriptive file and folder names to describe file and folder contents. Practice saving files to the correct folder so they can easily be retrieved at a later date.	Show and explain the directory structure of the computer using the appropriate operating system tool e.g. Windows Explorer, My Computer. Demonstrate how to create a folder with students' name on it. Students practice creating a folder with their name and then sub-folders organised by subject or topic. Students practice saving files to the correct folder.	Can students create folders effectively? Can students name their folders descriptively? Can students organise these folders in a logical manner?	Home Economics, Business, Economics, Government: The value of organisation and how it improves or impacts an individual's, business', or government's efficiency. Students can discuss topics such as knowledge sharing, organisational structure, home organisation, time keeping, or government organisation.
	Move files and folders	Organise new and existing files and folders by moving them from one place to another using the appropriate operating system tool.	The purpose of having folders is to use them to organise files and other folders. Using these available tools makes finding files much easier.	Willingness to keep items on the computer in order by using folders and descriptively naming files and folders.	Group related files in a folder by moving them using the appropriate operating system tool. Group related folders in a folder by moving them using the appropriate operating system tool.	Students organise their existing files and folders by moving them to the folders they created in the previous skill set. Students draw a directory structure of how they have organised their files and folders.	Can students move their files and folders effectively? Can students organise their files and folders logically by moving them into their appropriate place?	

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
File Management continued.	Rename files and folders	Renaming existing files and folders provides for more flexibility.	Files and folders can be renamed to make them more descriptive of their contents.	Willingness to keep items on the computer in order by descriptively naming files and folders based on their content.	Rename files using the appropriate operating system tool. Rename folders using the appropriate operating system tool.	Students identify a folder or file that they have named incorrectly. Students use the appropriate operating system tool to rename that file or folder.	Can students rename files and folders effectively?	Home Economics, Business, Economics, Government: The value of organisation and how it improves or impacts an individual's,

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Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
	Copy and paste files and folders	Use the correct operating system tool to copy and paste files and folders from one folder to another or from one storage device to another. Copying and pasting files and folders can save time by allowing for quick replication of needed files and folders or quick transfer of files and folders from one storage device to another e.g. floppy to hard disk.	Files and folders can be copied and pasted from one folder to another or from one storage device to another. Copy and pasting files from floppy to hard disk and back can be useful as a method for backing up, duplicating, working from and storing important files.	Willingness to save time by using copy and paste functions to transfer or replicate files or folders from one location to another.	Copy and paste files and folders from one place to another using the appropriate operating system tool. Process would include: 1. Choose folder or file by clicking once to highlight it. 2. Choose the copy option. 3. Go to the place where you want to paste the folder or file by clicking on it once to highlight it. 4. Choose the paste option. 5. Wait. Be patient. Students watch and read the screen to see what the computer is doing.	Students identify a file or folder they wish to transfer from hard disk to floppy disk. Demonstrate to the students the process of copying and pasting those files or folders from the hard disk to the floppy disk using the appropriate operating system tool. Students practice copying and pasting their folders and files from hard disk to floppy disk and from floppy to hard disk.	Can students copy and paste files and folders from one folder to another? Can students copy and paste files and folders from one storage device to another?	business', or government's efficiency. Students can discuss topics such as knowledge sharing, organisational structure, home organisation, time keeping, or government organisation.

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Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
File Management continued.	Delete and restore files and folders.	Deleting files and folders helps to clean unwanted or unused files and folders from storage devices. In some cases, files and folders can be restored using the appropriate operating system tool.	Cleaning out storage devices frees up storage space and makes work less cumbersome. A clean and organized hard disk drive makes files and folders easier to find.	Willingness to keep storage devices clear of unnecessary files and folders.	Delete files and folders using the appropriate operating system tool. Process would include: 1. Choose folder or file by clicking once to highlight it. 2. Choose the delete option. 3. Students watch, read the screen, and provide the appropriate answer when prompted. (If available) Restore files and folders using the appropriate operating system tools.	Students identify a file or folder they wish to delete from hard disk to floppy disk. Demonstrate to the students the process of deleting files or folders from the hard disk or floppy disk using the appropriate operating system tool. Students set up empty files and folders and practice deleting these from the hard disk or floppy disk. Teachers need to be aware of the security of all student's files and folders.	Can students identify files and folders to be deleted? Can students delete appropriate files and folders? If the appropriate operating system tool is available, can students use it to recover deleted files and folders?	Home economics, Business, Economics, Government: The value of organisation and how it improves or impacts an individual's, business', or government's efficiency. Students can discuss topics such as knowledge sharing, organisational structure, home organisation, time keeping, or government organisation.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
Introduction to Database	Design a simple Database	A database should be named appropriately for easy identification.

Identify the names of the major fields for the database.

Use these fields to plan a form for the database. | Using descriptive names for the database and major fields helps other computer users to easily navigate through a database.

Forms enhance presentation and make the users' work less cumbersome. | Willingness to design and plan a database that is easy to use, clear, concise, and easy to navigate.

Recognition that 90-95% of good computer work happens in the planning phase. | Identify the subject of the database, how it will be used, and who it will most likely be used by. Identify fields for the database. Sketch a design for the form of the database. Identify the Primary Key field of the database. | Have students identify a way to use a database. Some examples include cataloguing a library, CDs and music, videos, and students in the school.

Have students write up a detailed plan of what their database will be used for, what type of data will go into their database, their key fields, and a design of the form they will create for their database. | Can students show step-by-step how they designed their database?

Did students take into account how their database will be used?

Are the plans for the student's database clear and concise? | Economics, Social Studies, Library Science, Biology: Students can build a database for one of these subject areas either as an example of the way records should be kept or as a way to categorize existing and available data. |

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
	Build a simple Database	Create and name a new database. Organize the database so that it is easy to use, easy to navigate, easy to enter data, concise, and clear.	Constructing a database in a database program takes planning, persistence, patience, and foresight.	Willingness to spend as much time as necessary to construct and perfect a database that is easy to use, clear, concise, and easy to navigate.	Create a new database. Name that database. Create field names, descriptions of that field, and choose the type of data that will be contained in that field. Design and create a form for the database. Create and assign the Primary Key field for the database. Enter data using the datasheet view and forms.	Based on the plan students drafted in the previous skill set, have students build their database and enter data into it. Have fellow classmates evaluate the design, ease of use, clarity, and conciseness of the student's database. Have students incorporate feedback into the final draft of their database.	Can students execute their drafted plans to construct their database? Can students give and receive constructive criticism on their database? Is the final draft of a student's database easy to navigate, easy to use, concise, and clear?	

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
Presentation Software ---------------- NOTE: Requires at least 6-9 lessons. Students need a lot of practice to become confident with their Presentation Software Skills.	Plan a presentation by summarising information using images, text and animation.	Understand that presentations can be used to communicate information effectively, e.g. in a face to face presentation or over the internet. Identify where presentation software would be appropriate and effective	Information can be presented through a range of sources. One of which is Presentation Software e.g. PowerPoint. Realise that the audience and time available should be taken into consideration when planning a presentation.	Appreciate that information can be presented in a number of ways. The presentation of information depends upon the needs of the audience and the purpose of the message.	Choose a topic. Decide how long the presentation is going to be (time). Make a rough outline of main points of presentation. Decide number of slides it will take. Make a rough sketch on several sheets of paper for each main point. Plan the speech for each slide. Using ideas from presentations shown by teacher, project and evaluate what the presentation may look like.	Students choose from a range of topics. They will need to plan and prepare the content of their presentation. This will include activities on summarising information for presentation purposes. Teachers should demonstrate a number of different slide shows so that students can identify what a presentation is and how it can be used to display information. Encourage a group discussion on how slide shows can be used in school and in business.	Can students effectively use a step-by-step approach when designing and organizing a presentation? Can students clearly and effectively explain why they like or dislike certain aspects of a presentation? Are students aware of the positives and negatives of using a slide show presentation to promote a topic or teach a subject?	English: Audience, purpose of communication, oral presentations, evaluating effectiveness of communication All: The topics used for presentation purposes could be integrated with any area of the curriculum.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
Presentation Software continued. ----------------- NOTE: Requires at least 6-9 lessons. Students need a lot of practice to become confident with their Presentation Software Skills.	Create a slide presentation to communicate a message or information on a topic	Start up presentation software and create each slide. In the process of creating a slide show, students become familiar and comfortable with the tools of presentation software.	The use of presentation software is like sitting down at a drafting table and cutting, pasting, and designing each slide from scratch. Instead of work tools being in drawers, they are in menus and toolbar buttons.	Appreciate the time and effort it takes to produce a good slide presentation. Recognize that anything worth learning well takes patience, practice, and persistence.	Start up presentation software. Insert a new slide. Insert text. Insert graphics from Clip Art, Spreadsheet graphs, or CDRoms. Insert sound from gallery, file or CD. Edit text and graphics (cut, copy, paste). Resize and move text/ graphics boxes. Format background and template designs. Use animation tools.	Teachers need to demonstrate the activities identified in the content. Using their outlines, students create their slide presentations using creative clip art, animation, sound, charts, and word art. Students evaluate each other's slide presentations and provide comments/feedback.	Can students start up the presentation software? Can students work independently to insert a new slide, text, graphics, clip art, sounds, edit text, graphics, add animation, and format backgrounds?	All: The topics used for presentation purposes could be integrated with any area of the curriculum. Some example topics include: HIV/AIDS, life skills - prejudice, racism, how to get a job, how to start a business, abuse, social studies, economics, business, and history.

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Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
	Edit and perfect a slide presentation to incorporate suggested changes	Incorporate constructive feedback from fellow students into slide presentation. Edit, spell check, and proof read slide presentation to improve it.	Doing several drafts of a presentation can help to improve the presentation by correcting mistakes and incorporating constructive feedback.	Appreciate the importance of incorporating feedback and doing several drafts of a presentation. Willingness to strive for high quality presentations.	Use Spell Check. Sort slides into order. Time a presentation and run a slide show.	Students take evaluations from fellow students and do a second draft of their presentation. Students present their slide shows to the class. Have fellow students comment and critique their classmate's slide show.	Can students give and receive constructive criticism? Can students use spell check and slide sorter effectively? Can students present an effective and interesting slide show?	
Software integration - multitasking	Recognize that you can have more than one program or piece of software running at one time	Computers can run more than one program at a time. Running more than one program at a time is called multi-tasking.	There are times when it will be more efficient to run more than one program at a time to complete a task on the computer. Multi-tasking can save you time, effort, and energy.	Appreciate the efficiency of doing more than one thing at a time on the computer.	Startup multiple programs such as wordprocessing, spreadsheet, and encyclopaedia programs at once. Examine the task bar or multi-task menu to identify and keep track of all programs running on the computer.	Students come up with a research topic. Students start up the programs they plan on using to fulfil what is needed for their research topic. Students identify these programs in the task bar or multi-task menu.	Can the student start more than one program at a time? Can the student determine how many and which programs are running at one time?	All: The topics used for research purposes could be integrated with any area of the curriculum.

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Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
	Move between two or more running software packages or programs	How to use the appropriate operating system tool to switch between two or more programs that are already running.	Just because you do not see a program or software package directly on the screen, does not mean that it is not running.	Appreciate the simplicity of moving between two or more programs or software packages.	Differentiate between and active and an inactive window.

Use the task manager to actively switch between or among the multiple programs running on the computer. | Students type a letter, spell check, play a game, start a search, and perform other tasks at the same time by switching back and forth between programs using the task bar or multi-task menu. | Can the student switch between multiple programs that are all running on the computer at the same time? | |
| | Copy, cut, and paste from one program into another open program or software package | How to use the cut and copy option in one program to paste information into another. | Copy, cut, and paste can function between software packages and programs. | Appreciate the economy of time and effort that comes from copying, cutting, and pasting from one program to another. | Copy, cut, and paste functions along with the task manager to copy, cut, and paste between more than one program. | Students copy and cut information and pictures from one program (encyclopaedia, internet, or spreadsheet) and paste into their wordprocessing document. | Can the student cut and copy information from one program and paste it in another? | |

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
Formatting & Printing Spreadsheets	Add and format headers, footers, and page numbers to spread-sheets.	Headers and footers are the words or notations that run at the top and bottom of a page. They can be added, edited, formatted, and can contain page numbers and other details related to the set of spreadsheet pages being printed out.	Headers and footers are used to denote that a particular page of a document belongs to a set of other pages. For example, many textbooks will use headers to mark Chapters in a book and when Chapters change, the header changes.	Willingness to use clear and consistent headers, footers, and page numbers to guide a reader through a spreadsheet, explain the purpose of the spreadsheet, or denote individual pages of a set of spreadsheet printouts.	Use View, Header and Footer option to first display the areas where descriptive titles and page numbers will be added. Use the available tool bar to switch between header and footer, add and format text, and add and format page numbers.	Demonstrate the use of headers and footers. Demonstrate how to add headers, footers, and page numbers to an already existing document. Demonstrate how to format headers, footers, and page numbers already added. Students use a spreadsheet that they have already created or have them put one together from data they've collected for a project. Have students then add headers, footers, and page numbers, and format them.	Did the student use the appropriate tools to view, add, and format headers, footers, and page numbers? Is the final printed material clear, concise, easy to read, and easy to follow? Is it obvious which pages belong to which set of spreadsheet printouts?	Maths, Science, Social Studies, Economics: The data collected for the spreadsheet can be plant, animal, bug, colour, species, statistics, dollar prices for certain goods, etc. that are found in that community. The student can then manipulate this data to describe the environment of their town.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
					Classmates critique and give constructive criticism on the clarity, consistency, and formatting of their classmate's work and incorporate these comments into their final draft to submit to the teacher.			
Formatting & Printing Spreadsheets continued.	View and manage page layout and print preview of spread-sheets	Use the capabilities available on the program to perfect the format, layout, and look of a document before printing it out.	Time, paper and money can be saved by using Print Preview and perfecting the format and layout of a spreadsheet before printing it out.	Willingness to use the available tools on the computer to save time, paper, and money.	File, Page Set Up. Examine and be able to use any tab necessary.

File, Print Preview. Examine and be able to use all available options/buttons when necessary.

View, Page Break Preview.

Add, delete, and move page breaks. | Demonstrate the capabilities of Page Set Up, Print Preview, Page Break Preview, and manipulating page breaks to perfect the look of a document before printing it out.

Students practice to perfect a spreadsheet printout. To ensure that students understand and can exercise these skills, limit each student to 1-2 pieces of paper for printing their final project for submission. | Can the student use Page Setup, Print Preview, and Page Break Preview effectively?

Can the student add, delete, and move page breaks? | Math, Science, Social Studies, Economics: The data collected for the spreadsheet can be plant, animal, bug, colour, species, statistics, or dollar prices for certain goods that are found in that community.

The student can then manipulate this data to describe the environment of their town/village/community. |

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Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
	Print spread-sheets	How to efficiently and effectively print a spreadsheet.	Printing a spreadsheet is the final stage of work. Therefore it is done after spell checking, proof reading, formatting, and Print Previewing the work on screen.	Willingness to practice printer etiquette: check with others before printing, clean up and unclog printer of debris if necessary, and keep the lab free of trash by discarding used paper.	File, Print. Choose printer, print range and number of copies. Examine and be able to use other options when necessary. Printer quick button on toolbar.	Demonstrate the File, Print and Print from toolbar button options. Show where to choose printer, print range, and designate the number of copies. Print. Students print their final spreadsheet project for submission to the teacher.	Can the student print a clear, concise, orderly looking spreadsheet? Did the student conserve paper by using Print Preview and other tools to perfect the document on-screen before printing it out?	
Formatting & Printing Spread-sheets continued.	Format, resize, and make adjustments to charts	How to manipulate: - the display of information - the communication of information and - the affect of information on the reader using charts and chart formatting.	By changing the format and layout of a chart, the same information can be presented in different ways. Different formats and layouts can impact and influence the reader in different ways.	Willingness to explore and harness the use of charts to display information. Appreciation for the ability that charts and chart formatting have to communicate to and affect the reader.	Click on Chart to highlight for formatting. Review contents of Chart menu: Chart type, Source Data, Chart Options, etc. Resize chart area, resize chart, change series colours, chart title, fonts, font size, legend details, line or grid types, and move the chart.	Demonstrate how to change chart types, source data, line colours, labels, font, etc. in an already existing chart. Using charts students have previously created, have students practice what they saw demonstrated using the same data for different types of charts. Students arrange various charts all on one page and print the page of charts.	Can the student manipulate chart type, source data, and chart options? Can the student use all the formatting features available to perfect the impact and view of the chart? Does the printed chart communicate the information clearly and in an easy to read format?	Reading, Literature, Social Studies, Economics: The data collected for the spreadsheet and charts can be names, types, cost, and descriptions of books, magazines, movies, and music available in the library, community center, or market of the town. It can also be statistics on family, race, children, and other

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
	Print charts	How to print an individual chart. How to print a page of charts.	Printing a chart is the final stage of work. Therefore it is done after perfecting, formatting, and Print Previewing the work on screen.	Willingness to use Page Break Preview and Print Preview to save time, paper, and money. Appreciation for the challenge of producing a finished product with limited resources.	File, Page Setup, Print Preview, Print option or print using the toolbar button or quick print option. Print a single chart: highlight chart by clicking on it; choose File, Print. Print multiple charts on one page: arrange charts on a sheet; use Print Preview to make sure they all fit on one page; Click on a spreadsheet cell; choose File, Print.	To ensure the use of Print Preview, allow each student only 1-2 pages of paper for printing. Students evaluate and compare charts for clarity and impact. Encourage students to critique, ask questions, and evaluate their classmate's presentation of information.	Does the printed chart address the question that the student was attempting to answer?	members of the community. The students can then manipulate the data into chart format to compare prices for various goods found in the community, number of men vs. women, or number of people with jobs vs. those without.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
Advanced Word Processing - Printing envelopes and labels	Address and print an envelope using a word processor	How to use correct address formats. How to put an envelope into the printer.	Using the computer to print an envelope can affect how it is received.	Willingness to use the computer to create clear addresses for envelopes.	Tools, Envelopes and Labels. Choose Envelopes tab. Enter Delivery and Return address. Examine the preview and feed suggestions. Choose options and examine the envelope and print options. Each printer feeds a little differently. Examine the printer and follow the pictures on the manual feed tray of the printer.	Demonstrate the creation of Delivery and Return address using the Tools, Envelopes and Labels option from the menu. Also demonstrate envelope options, printing options, and how to correctly read pictures on the manual feed tray of a printer. Each student attempts to print out a Delivery and Return address on an envelope.	Can students address and print an envelope using a word processor clearly, efficiently and effectively?	Home Economics, Business, Economics: Impact of presentation, business etiquette, and organisation on society, work relations, government relations, and business relations. Examples include business cards, address and shipping labels, name badges, and other items used for a formal business.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
	Create and print labels using a word processor	How to use available word processing tools to print labels.	Word processing programs come with several templates for computer labels that can be purchased in a store. These templates, once filled in, are organised so they print out perfectly once the labels are fed into the printer properly.	Willingness and appreciation for the economy of using the computer to create clear labels. Willingness to use the available templates without the availability of the corresponding label sheets.	Tools, Envelopes and Labels. Choose Labels tab. Choose options to pick the type of label the student wants to create. Choose to create New Document. Fill in the labels with the appropriate information.	Demonstrate the creation of a New Document of labels and examine its formatting features - File, Page Setup, Print Preview. Students create their own document of labels. Allow students to print out 1 copy of these labels to show that actual label sheets are not needed to make use of the templates.	Can students create and print labels using a word processor clearly, efficiently, and effectively?	Discuss how the ability to create these items on a home computer can impact the effectiveness of small business, medium size businesses, and home businesses.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
Advanced Word Processing - Mail merging	Conceptualise the mail merge feature	Merging requires the use of two files: a main document and a data source. Data from the data source is inserted into the main document to produce personalised documents.	Using the mail merge feature, you can produce a large amount of personalised form letters, mailing labels, and memos without having to type each one individually.	Appreciate that mail merge can be used to save time when producing bulk mailings, envelopes, or creating labels.	Main document - contains the fixed information and merge fields, which are positioned at the points where the information from the data souce is to be printed. Data source - contains the personalised information that varies in each document Merge process - When the mail merge begins, the merge fields are replaced with the information from the data source.	Draw a picture of the components of a mail merge. Arrows should show how the main document and data source combine in the merge process to create a personalised document. 1. (main document) Have students write a letter with box cut out after Dear. 2. (data source) Have students write a list of the names of people they want to send the letter to. 3. (merge process) Place the second sheet of paper under the letter and move it so that each name shows in the Dear cut out box. This final product is the mail merged document.	Do students understand the concept of mail merging? Can students draw a diagram showing the process of mail merging?	Home economics, Business, Economics: Impact of presentation, business etiquette, and organisation on society, work relations, government relations, and business relations. Examples include form letters, mass mailings, labels, and envelopes. Discuss how the ability to create these items on a home computer can impact the effectiveness of small business, medium size businesses, and home businesses.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
Advanced Word Processing - Mail merging continued.	Create a main document	How to create form letter with place holders for merge fields	The form document will provide the format for the document to be sent. The merge fields will be the variable data that will change with each document printed.	Willingness to create an appropriate form letter as a main document. Willingness to explore and institute the use of mail merge to automate repetitive tasks.	Start up word processor. Type the form letter. In areas that merge fields are to be printed, type in dummy field names enclosed in double angle-brackets e.g. <<Name>>.	Demonstrate the creation of a main document such as a form letter using dummy field names enclosed in double angle-brackets as place holders for merge fields. Students work on creating their own form letter with dummy field names as place holders.	Can students create a form letter with place holders for merge fields?	Home Economics, Business, Economics: Impact of presentation, business etiquette, and organisation on society, work relations, government relations, and business relations. Examples include form letters, mass

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Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
	Create data source	How to organize data or information into an easy to import format.	How well data is organised can impact on how it is imported into a mail merge document.	Willingness to create, keep, and maintain a well ordered source of data such as names, addresses, and phone numbers that can be easily imported into a mail merge document.	Create a table in a spreadsheet, word processing, or database program. The first row of the table should have the headings describing the data in the column e.g. Name, Address, City, Country, etc. Fill out the table with the appropriate information.	Demonstrate the creation of a well ordered data source in a spreadsheet or word processing program. The header row should be clearly labeled with field names such as Title, FirstName, LastName, Job Title, Company, Address1, Address2, City, and Country. Students create their own data source in a spreadsheet, word processing, or database program.	Can students create a well organised, easy to import, data source?	mailings, labels, and envelopes. Discuss how the ability to create these items on a home computer can impact the effectiveness of small business, medium size businesses, and home businesses.

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Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
Advanced Word Processing - Mail merging continued.	Insert merge fields	How to insert merge fields into main document.	The creation of a well organised form letter with appropriately placed dummy field names, allows easy insertion of appropriate merge fields.	Willingness to create, keep, and maintain a well ordered source of data such as names, addresses, and phone numbers that can be easily imported into a mail merge document.	Go to Tools, Mail Merge. Step 1: Create, 'Form Letter', Active Window. Step 2: Get Data, 'Open Data Source', navigate to the file created as the Data Source. Click on Close. Position insertion point where the first merge field is to be inserted. Click on 'Insert Merge Field' button in Mail Merge Toolbar and select the desired field. Place all other fields in their respective positions to replace dummy fields in the main document.	Using the previously created form letter, demonstrate the insertion of merge fields into the places previously occupied by the dummy field names. Students insert merge fields in the place previously occupied by the dummy field names using their previously created form letters.	Can students place merge fields in their appropriate places on the form letter they previously created?	Home Economics, Business, Economics: Impact of presentation, business etiquette, and organisation on society, work relations, government relations, and business relations. Examples include form letters, mass mailings, labels, and envelopes. Discuss how the ability to create these items on a home computer can impact the effectiveness of small business, medium size businesses, and home businesses.
	Merge documents	How to mail merge a main document with a data source	The creation of well organised and well labeled main documents and data sources makes mail merging simple.	Appreciation for the time and effort needed to build foundation documents (main document, data source) so that merging files is easy.	Go to Tools, Mail Merge. Step 3: Select Merge, the 'Merge' dialog box appears, fill out the information and click on 'Merge.'	Using the previously created form letter and data source, demonstrate the mail merging of the two items. Students practice merging their form letter and data source.	Can students mail merge their data source with the form letter they previously created?	

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
Binary Number System	Define Binary Number System	A binary number system uses two symbols: 0 and 1. 0 represents OFF and 1 represents ON in electrical switches. Because there are only two digits (also called bits), the binary number system is used in computers.	The computer stores data and information in series or blocks of digits all containing a certain sequence of 0 and 1. These 0 and 1 can be represented by the positions of on-off switches, by the presence or absence of electric current, or by	Willingness to learn a new number system. Appreciation for the way a computer might "remember" or "think" of data or information.	Decimal or Denary - Divided or counted by tens. Number Systems - various systems used to write quantities. A number system is defined by the number of different symbols it uses. The decimal system requires ten different symbols, or digits, and is a base-10 system.	Discuss the definition of Number System. Discuss the definition of Decimal or Denary Number System. Discuss the definition of Binary Number System. Discuss the definition of digit. Discuss the definition of byte, kilobyte (KB), megabyte (MB), and	Do students understand what a Decimal or Denary Number System is? Do students understand what a Binary Number System is? Do students understand how space on a storage device is described?	Mathematics: Number systems, number theory, decimals, addition, subtraction, multiplication, and division. Language: The assigning of definitions to particular terms and the practice of using them in repetitive contexts.

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Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	Knowledge	Understanding	Attitude				
			magnetized dots on a tape or disk.		Binary - Characterized by or consisting of two parts or components; twofold. A binary number system uses two symbols: 0 and 1. Digit - One of the characters used to indicate a whole number (unit) in a numbering system. Since a digit stored in the computer can take only two values, it is a binary digit. Eight digits make a byte.	gigabyte (GB). 1 kilobyte = 1,000 bytes, 1 megabyte = 1,000,000 bytes, 1 gigabyte = 1,000,000,000 bytes The purpose of this discussion is to demonstrate the origin of counting storage capacity on a hard disk, floppy disk, CD-ROM, or RAM/ROM by KB, MB, and GB in computer advertisements [for example].		Science: Metric system conversion. Discuss how volume or capacity in boxes, bottles, or other containers can be described. Link this to the description of capacity in hard disks, floppy disks, CD-ROMs, and memory.

| Topic | Learning Objectives | | | | Content | Methods / Strategies / Materials | Evaluation | Areas of Integration |
	Skills	Knowledge	Understanding	Attitude				
Binary Number System continued.	Convert Binary to decimal.	How to find the decimal equivalent of a binary number.	Each bit corresponds to a table of values that increases by a multiple of 2 from right to left. For example, the table would have from right to left: 1, 2, 4, 8, 16, 32, 64, 128 and so on. The conversion process involves assigning and then adding up the corresponding values.	Willingness to learn how to convert binary to decimal. Respect the rules governing the conversion of binary to decimal.	The position of the '1' indicates what corresponding power of two the number represents. For example: 10=2 - 1x2 11=3 - Take 10 and add 1 to get 11 so take 2 and add 1 to get 3. 100=4 - 1x2x2 1000=8 - 1x2x2x2 Make a table with values starting at 1, 2, 4 and so on from right to left. Match each bit with the corresponding number to convert binary to decimal. For example: 00110000 = (1x32)+ (1x16) = 48. 00000011 = (1x1)+(1x2) = 3	Demonstrate and explain conversion of binary to decimal to students: Create charts with conversion from binary to decimal. Students complete worksheets with binary to decimal conversion problems.	Can students explain the process or list the rules used to convert binary to decimal? Can students convert binary numbers to decimal?	Mathematics: Number systems, number theory, decimals, addition, subtraction, multiplication, and division. Language: The assigning of definitions to particular terms and the practice of using them in repetitive contexts. Science: Metric system conversion.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
Binary Number System continued.	Convert decimal to Binary.	Convert from decimal to binary numbers.	Using the table created when converting binary to decimal, subtract the next smallest number that fits into the number being converted. A 1 is entered for each number taken away and a 0 for those in the chart that were skipped.	Willingness to learn how to convert decimal to binary. Respect the rules governing the conversion of decimal to binary.	Odd number = last binary digit must be 1 Even number = last binary digit must be 0 Using the chart created to convert binary to decimal, subtract the next lowest number in the chart from the decimal number. Keep subtracting the next number that fits into the remainder until there is no more remainder. A 1 is placed for each number taken away and 0 for those that were skipped in the chart.	Demonstrate conversion using a table. Example: Convert 170 to binary 170 - 128 = 42: 1 64 ---------- 0 42 - 32 = 10: 1 16 ---------- 0 10 - 8 = 2: 1 1 ------------ 0 so 170 converts to 101010 Students complete worksheets with decimal to binary conversion problems.	Can students explain the process or list the rules used to convert decimal to binary? Can students convert decimals to binary accurately?	Mathematics: Number systems, number theory, decimals, addition, subtraction, multiplication, division etc. Language: The assigning of definitions to particular terms and the practice of using them in repetitive contexts.

Topic	Learning Objectives				Content	Methods / Strategies / Materials	Evaluation	Areas of Integration
	Skills	**Knowledge**	**Understanding**	**Attitude**				
	Adding Binary Numbers	Rules governing binary addition.	Binary is not added in the same way that we would add decimal numbers.	Willingness to learn how to add binary numbers. Respect the rules governing binary addition.	Rules: (a) $1 + 0 = 1$ (b) $0 + 1 = 1$ (c) $0 + 0 = 0$ (d) $1 + 1 = 10$ Note that (d) involves a 'carry' operation. Example: 0101+ 0011 ------- 1000	Demonstrate binary addition using several different examples. Examples: 0101+ 0101+ 0010 0001 ------- -------- 0111 0110 Students complete worksheets with several binary addition problems.	Can students list the rules governing the addition of binary numbers? Can students add the binary numbers correctly?	
Compilation of Terms used in Grade 9	Maintain records of terms and definitions for future use.	The terms and definitions relevant for material covered in Grade 9.	The terms and their definitions have very specific and meaningful uses.	Willingness to be responsible for understanding the terms and definitions used in IT.	Terms and definitions introduced throughout the course of the terms.	Students maintain a workbook throughout the year writing down each term and looking up the definition of terms that they do not understand.	Can students understand some of the basic terms introduced? Can students take the responsibility for researching and teaching themselves the definitions of certain terms?	Language: Use these terms in writing an assignment. Social Studies: Identify the use of these terms in local newspapers and local news. Are they being used properly?