

**REPUBLIC OF RWANDA**



***MINISTRY OF EDUCATION***  
***NATIONAL CURRICULUM DEVELOPMENT CENTRE***

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## **ICT SYLLABUS FOR LOWER SECONDARY EDUCATION**



Kigali, September 2006

REPUBLIC OF RWANDA



*MINISTRY OF EDUCATION*  
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## **ICT SYLLABUS FOR LOWER SECONDARY SCHOOL**

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**ICT**

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## INTRODUCTION

Information and communication technology (ICT) covers all the tools and resources used for the treatment and transmission of information and their use. These technologies include computers, audio visual systems, broadcast receiving systems and telecommunication systems, media such as compact disks and video disks, Internet, networks, instructional software, printed media, television, telephone, e-mail, communication satellite, conventional and interactive radio etc. These technologies can best achieve the potential for interactive and mutual learning. However, ICT cannot replace teachers; it rather contributes to the system of knowledge diffusion and effective learning by providing a great deal of advantage in the delivery of equitable and quality education. It is essential that MINEDUC expose students and teachers to ICT to improve the quality of Education.

This curriculum focuses on three main themes:

- Introduction to computers to familiarise learners with the computer architecture.
- Microsoft office to familiarise learners with the use of ICT tools in daily office activities.
- Internet explorer to familiarise learners with the Web communication and Research.

Some curriculum contents are repeated and emphasized at different levels to facilitate their mastery.

## GENERAL ORIENTATION:

The MINEDUC recognises that most of schools have no IT qualified teachers to deliver the subject of ICT. However the subject ICT consists on familiarising students to the Information (and communication) technology tools, therefore, any science teacher, if well trained in the content of the subject, should deliver it efficiently. To this end, the Ministry of Education has trained a sufficient number of teachers, and we plan to train other teachers so that each school will have at least two teachers trained on the use of ICT tools. Of course, teachers will use the modules developed to this end, as well as various resources available in the library and Internet. This curriculum supposes that every school has laboratory equipped with computers with an Internet connection (one computer for two or three students will be sufficient), hence, teacher should focus on practical exercises rather than theoretical concepts that are quickly forgotten. Practical exercises in groups will be completed by individual homework to enhance the competencies of students.

Due to the rapid evolution of ICT, some contents of this curriculum may become obsolete before their delivery, therefore, we recommend teachers to use the Internet and physical libraries to be informed on the evolution of Information Technologies.

## **EVALUATION APPROACH**

During day to day evaluation and after each chapter, practical exercises will be done to help learners understand the lesson. After a certain number of chapters, teachers will organise situations with experience integration. At the end of a term, a year or even a cycle, there will be a general evaluation which will include practical exercises and some theoretical concepts. All these forms of evaluation should focus on practices that relate to daily life situations.

## **GENERAL OBJECTIVES:**

**By the end of Lower Secondary Education, the learner should be able to:**

- Create, organise and manage files in a folder
- Edit and print simple documents using a Word Processing Package
- Edit documents including mathematical calculations
- Navigate between Web pages, send and receive e-mails.

# DETAILED CURRICULUM

## SENIOR 1

### CHAPTER 1: INTRODUCTION TO COMPUTERS

Specific objectives	Contents	Teaching / learning activities
Define computer related terms	Computer related concepts <ul style="list-style-type: none"><li>• IT</li><li>• ICT</li><li>• COMPUTER SCIENCE</li></ul>	In groups, Students define the different concepts using a dictionary and other available resources
Give examples where computers are used	Use of computers in : <ul style="list-style-type: none"><li>• Schools</li><li>• Home</li><li>• Banks</li><li>• Shops</li><li>• Libraries</li><li>• Etc.</li></ul>	Group discussion or brainstorming
Identify information & communication technology tools that are useful in daily life	IT tools: <ul style="list-style-type: none"><li>• Computers</li><li>• Mobile phones</li><li>• Land lines</li><li>• Etc.</li></ul>	Brainstorming and observation of different tools

Specific objectives	Contents	Teaching / learning activities
<p>Identify the main components of a computer Distinguish hardware and software parts</p>	<p>Components of a computer</p> <ul style="list-style-type: none"> <li>• Hardware (monitor, keyboard, mouse, CPU, etc.)</li> <li>• Software (System and application software)</li> </ul>	<p>Students observe computer's components in the laboratory.</p>
<p>Identify different types of computers</p>	<p>Types of computers</p> <ul style="list-style-type: none"> <li>• Supercomputers</li> <li>• Mainframes</li> <li>• Minicomputers/Servers</li> <li>• Micro-computers (PC) <ul style="list-style-type: none"> <li>○ Desktop computers</li> <li>○ Laptop</li> </ul> </li> </ul>	<p>Show available types of computer physically and through pictures or images (where unavailable).</p>
<p>Identify various connectors and ports</p>	<p>Connectors &amp; ports</p> <ul style="list-style-type: none"> <li>• Definition</li> <li>• Types of connectors <ul style="list-style-type: none"> <li>○ USB</li> <li>○ Keyboard</li> <li>○ Mouse</li> <li>○ VGA</li> </ul> </li> </ul>	<p>Observe and get acquainted with connecting appropriate hardware to different connectors and ports</p>
<p>Start up and shut down the computer</p>	<p>Switch On/Off button Steps of starting up the computer Steps of shutting down the computer Turn off, stand by, restart</p>	<p>Practical exercises on starting up and shutting down the computer</p>



Specific objectives	Contents	Teaching / learning activities
Use different peripherals	Peripherals <ul style="list-style-type: none"> <li>• CD/DVD-ROM drive</li> <li>• Diskette drives</li> <li>• Monitor</li> <li>• Printer</li> <li>• Scanners</li> <li>• Digital Cameras</li> </ul>	Practical exercises on connecting the monitor, printer, scanner  Scan a document, a picture
Use the mouse	Mouse <ul style="list-style-type: none"> <li>• Click</li> <li>• Double click</li> <li>• Right click</li> </ul>	Familiarize with the mouse
Identify keyboard keys	Keyboard <ul style="list-style-type: none"> <li>• Alphanumeric keys</li> <li>• Arrow keys</li> <li>• Shift</li> <li>• Caps Lock</li> <li>• Space bar</li> <li>• Enter</li> <li>• Back space</li> <li>• Delete</li> </ul>	Familiarize with the keyboard.
Explain what software is	Software <ul style="list-style-type: none"> <li>• Operating system</li> <li>• Application software</li> </ul>	Group discussion and individual research to make a difference between OS software and application Software.

Specific objectives	Contents	Teaching / learning activities
Use desktop's elements	Windows and its components: <ul style="list-style-type: none"> <li>• desktop</li> <li>• Task bar</li> <li>• Start menu</li> <li>• My Computer etc.</li> </ul>	Use the desktop, the tasks bar and the start menu Launch programs using start menu

## CHAPTER II: MICROSOFT WORD

Specific objectives	Contents	Teaching / learning activities
Explain what Ms Office is	<b>Microsoft Office</b> Definition Role	Group discussion & brainstorming
Launch and close Ms Word	Launch by using start menu Launch by using a shortcut	Practical exercises on launching and closing Ms Word
Describe what Ms Word does	The features contained in Ms Word: (Text, Illustration, Graphics, Charts, headers and footers, footnotes etc.)	Open an existing document and get the feedback from the students.

Specific objectives	Contents	Teaching / learning activities
Identify title bar, menu bar, toolbars, ruler, the scroll bar	Word environment The title bar The menu bar Toolbars The standard toolbar The Format toolbar Drawing toolbar Scroll bar	Practical exercises on the insertion/hiding of the toolbars, ruler
Create, Save and Close a new Word document	New document	Practical exercises
Exit Word	File - exit	Practical exercises
Type a text	Keyboard	Practical exercises on creating documents, typing, saving and closing documents.
Use paragraphs	Paragraph <ul style="list-style-type: none"> <li>• Definition</li> <li>• Paragraph alignment</li> <li>• Line spacing</li> </ul>	Exercises on paragraph alignment, line spacing
Insert borders and shading	Borders and shading Border and shading Dialogue box	Practical exercises

Specific objectives	Contents	Teaching / learning activities
Change case of a text	Changing case <ul style="list-style-type: none"> <li>• Upper Case</li> <li>• Lower case</li> <li>• Title case</li> </ul>	Practical exercises on changing case
Open an existing document	Localization of a file/folder <ul style="list-style-type: none"> <li>• Folder</li> <li>• File</li> </ul>	Practical exercises on opening a document as indicated by the teacher.
Switch between different page layout views	Page layout view <ul style="list-style-type: none"> <li>• Normal view</li> <li>• Web layout view</li> <li>• Print layout view</li> <li>• Outline view</li> </ul>	Display a same document between different views and discuss the use of each.
Cancel a command	« UNDO » command	Exercises on the « UNDO » command
Insert words in the middle of a text	<ul style="list-style-type: none"> <li>• Insertion point</li> <li>• Arrow keys</li> </ul>	Practical exercises on adding words in the middle of a text
Format a text	<b>Formatting a text</b> <ul style="list-style-type: none"> <li>• Correcting and deleting/inserting text</li> <li>• Copying and moving text</li> <li>• Text formatting : Font, font size, font colour, Bold, Underline, Italic</li> <li>• Paragraph alignment: justify, right, centre, left</li> </ul>	Practical exercises

Specific objectives	Contents	Teaching / learning activities
Edit a text	Text editing <ul style="list-style-type: none"> <li>• Selecting a part of text using a mouse</li> <li>• Select all</li> <li>• Copy</li> <li>• Cut</li> <li>• Paste</li> <li>• Drag and drop</li> </ul>	Practical exercises
Move around a text	Moving around a text <ul style="list-style-type: none"> <li>• Getting to the start of the text</li> <li>• Getting to the end of the text</li> <li>• Scrolling through the text</li> <li>• Clicking on a text</li> </ul>	Practical exercises
Insert and edit a table	Tables <ul style="list-style-type: none"> <li>• Inserting a table</li> <li>• Inserting a column</li> <li>• Inserting a row</li> <li>• Deleting table</li> <li>• Deleting row</li> <li>• Deleting column</li> </ul>	Create, modify and handle a table using MS Word. Exercises on tables
Define his/her own table borders, shading colour	<ul style="list-style-type: none"> <li>• Border colour</li> <li>• Shading colour</li> </ul>	Faire des exercices sur les bordures et couleurs

Specific objectives	Contents	Teaching / learning activities
<p>Perform simple calculations</p> <p>Sort a list</p> <p>Add/remove shading to a paragraph</p> <p>Insert a chart from a Word table</p> <p>Insert an Ms Graph chart</p> <p>Protect computer against viruses</p> <p>Print a Word document</p>	<p>Mathematical calculations</p> <ul style="list-style-type: none"> <li>• Sum</li> <li>• Product</li> <li>• Maximum</li> <li>• Minimum</li> <li>• Average</li> </ul> <ul style="list-style-type: none"> <li>• Ascending Order</li> <li>• Descending Order</li> </ul> <ul style="list-style-type: none"> <li>• Border and Shading</li> <li>• Shading colour</li> </ul> <p>Chart</p> <ul style="list-style-type: none"> <li>• Chart</li> <li>• Datasheet</li> <li>• Legend</li> </ul> <p>Virus</p> <ul style="list-style-type: none"> <li>• Definition</li> <li>• Types of viruses</li> </ul> <p>Antivirus</p> <ul style="list-style-type: none"> <li>• Scan antivirus</li> </ul> <p>Print button</p>	<p>Familiarise with simple calculations</p> <p>Practical exercises on Sorting</p> <p>Familiarise with borders and shading</p> <p>Practical exercises on word charts</p> <p>Practical exercises on Ms Graph charts</p> <p>Scan a floppy disk</p> <p>Students print documents using the Print button of the main toolbar</p>

## CHAPTER III: INTERNET

Specific objectives	Contents	Teaching / learning activities
Define Internet	Internet Definition Browsers	Group discussion
Use Web environment	Web Environment <ul style="list-style-type: none"> <li>• address bar</li> <li>• URL</li> <li>• Web site</li> <li>• back/forward buttons</li> <li>• hyperlinks</li> <li>• etc.</li> </ul>	Open Web pages and Web sites Browse the Web environment and use the different Web tools. Perform various exercises to browse through web pages
Create an e-mail account	E-mail address <ul style="list-style-type: none"> <li>• Sign up</li> <li>• Account &amp; password</li> </ul>	Each student has to open his/her own account.
Send and receive emails	e-mails: <ul style="list-style-type: none"> <li>• Inbox</li> <li>• Write</li> <li>• Read</li> <li>• Sent</li> <li>• Sign out</li> </ul>	Familiarize with sending and receiving e-mails
Organize messages	Organising messages <ul style="list-style-type: none"> <li>• adding/deleting folders</li> <li>• organising messages</li> </ul>	Faire des exercices sur la création et la suppression des dossiers et le classement de messages
Search for news on Internet	Yahoo	

## DISTRIBUTION OF LESSONS: SENIOR 1

### 1<sup>ST</sup> TERM

#### CHAPITRE 1: INITIATION A L'INFORMATIQUE

Week	Specific objectives	Contents	Timing (periods)
1	Define computer related terms	Computer related concepts	1
	Give examples where computers are used	Use of computers	
	Identify information & communication technology tools that are useful in daily life	IT tools:	
	Identify the main components of a computer	Components of a computer	1
Identify different types of computers	Types of computers		
2	Identify various connectors and ports	Connectors & ports	1
	Start up and shut down the computer	Starting up and shutting down	1
3	Use different peripherals	Peripherals	2
4	Use the mouse	Mouse	1
	Identify keyboard keys	Keyboard keys	1
5	Identify keyboard keys	Exercises on the keyboard	1
	Explain what software is	Software	1
6	Use desktop's elements	Windows and its components:	2



Week	Specific objectives	Contents	Timing (periods)
7	Use desktop's elements	Exercises on Windows components	2
8	Use desktop's elements	Exercises on Windows	2
<i>Sub total</i>			<b>16</b>

## CHAPITRE II: MICROSOFT WORD

Week	Specific objectives	Contents	Timing (periods)
9	Explain what Ms Office is Launch and close Ms Word	<b>Microsoft Office</b> Launching and closing Ms Word	1
	Describe what Ms Word does	The features contained in Ms Word	1
10	Identify title bar, menu bar, toolbars, ruler, the scroll bar	Word environment	1
	Create, save and close a new Word document	Creating, saving and closing documents	1
	Exit Word	File exit	
11	Revision		2
12	Exams		2
<i>Sub total</i>			<b>8</b>

## 2<sup>nd</sup> Term

### Ms Word

Week	Specific objectives	Contents	Timing (periods)
1	Type a text	Familiarising with the keyboard	2
2	Type a text	Familiarising with the keyboard	2
3	Use paragraphs	Paragraph	1
	Insert borders and shading	Borders and shading	1
	Change case of a text	Changing case	
4	Open an existing document	Localization of a file/folder	1
	Switch between different page layout views	Page layout view	1
	Cancel a command	« UNDO » command	
5	Insert words in the middle of a text	Inserting words in a text	1
	Format a text	Formating a text	1
6	Format a text	Familiarising with Formating a text	2
7	Edit a text	Text editing	2
8	Move around a text	Moving around a text	1
	Insert and edit a table	Tables	1
9	Insert and edit a table	Familiarising with tables	1

<b>Week</b>	<b>Specific objectives</b>	<b>Contents</b>	<b>Timing (periods)</b>
	Define his/her own table borders, shading colour	Trames de fond, Couleur de la bordure d'un tableau	1
10	Perform simple calculations	Mathematical calculations	2
11	Sort a list	Sorting	1
	Add/remove shading to a paragraph	Border and Shading	1
12	Revision		2
13	Exams		2
<i>Sub total</i>			<b>26</b>

### 3<sup>rd</sup> Term

<b>Week</b>	<b>Specific objectives</b>	<b>Contents</b>	<b>Timing (periods)</b>
1	Insert a chart from a Word table	Ms Word Graph Word	2
2	Insert an Ms Graph chart	Ms Graph	2
3	Insert an Ms Graph chart	Viruses and Antivirus	2
4	Protect computer against viruses	Exercises on scanning for viruses	1
	Print a Word document	Print button	1
5	Evaluation	Ms Word	2
<i>Sub total</i>			<b>10</b>

### CHAPTER III : INTERNET

Week	Specific objectives	Contents	Timing (periods)
6	Define Internet	Defining Internet	1
	Identify Web environment	Web Environment	1
7	Identify Web environment	Web Environment	1
	Create an e-mail account	E-mail address	1
8	Send and receive emails	e-mails:	2
9	Search for news on Internet	Yahoo	2
10	Evaluation	Internet	2
11	Revision	All contents	2
12	Exams	All contents	2
<i>Sub total</i>			<b>14</b>

## SENIOR 2

### CHAPTER I: INTRODUCTION TO COMPUTER

Specific objectives	Contents	Teaching / learning activities
Use external memories	<ul style="list-style-type: none"><li>• External Memory (removable drives)<ul style="list-style-type: none"><li>○ diskette,</li><li>○ flash disk</li><li>○ CDs</li></ul></li><li>• Role</li><li>• Advantage and disadvantage</li></ul>	Practical exercises on Transferring files and folders from one computer to another using a diskette, flash disk, CD.
Use some text editors functions	Text Editor functions <ul style="list-style-type: none"><li>• Select</li><li>• Copy/cut /paste</li><li>• Save /save as...</li></ul>	Practical exercises on copy/cut /paste Save/Save as...
Manage and use files	File management File/folder Size New file New folder Copy/move file/folder from one location to another. Drag and drop objects. Renaming /deleting files and folders. Recycle Bin	Create files and folders Copy/move file/folder from one folder to another  Practical exercises on creation of a hierarchy of files/Folders

## CHAPTER II : MICROSOFT WORD

Specific objectives	Contents	Teaching / learning activities
Open an existing document	Localization of a file/folder <ul style="list-style-type: none"> <li>• Folder</li> <li>• File</li> </ul>	Practical exercises on opening a document as indicated by the teacher.
Type a text	<ul style="list-style-type: none"> <li>• Keyboard Keys</li> </ul>	Practical exercises on Typing a text using Ms Word
Insert words in the middle of a text	<ul style="list-style-type: none"> <li>• Insertion point</li> <li>• Arrow keys</li> </ul>	Practical exercises on adding words in the middle of a text
Format a text	<p><b>Keys Combination</b></p> <ul style="list-style-type: none"> <li>• Correcting and deleting/inserting text</li> <li>• Copying and moving text</li> <li>• Text formatting : Font, font size, font color, Bold, Underline, Italic</li> <li>• Paragraph alignment: justify, right, center, left</li> </ul>	Practical exercises

Specific objectives	Contents	Teaching / learning activities
Edit a text	Text editing <ul style="list-style-type: none"> <li>• Selecting a part of text using a mouse</li> <li>• Select all</li> <li>• Copy</li> <li>• Cut</li> <li>• Paste</li> <li>• Format painter</li> </ul>	Practical exercises
Move around a text	Moving around a text <ul style="list-style-type: none"> <li>• Getting to the start of the text</li> <li>• Getting to the end of the text</li> <li>• Scrolling through the text</li> <li>• Clicking on a text</li> </ul>	Practical exercises
Manipulate paragraphs	Manipulating paragraphs <ul style="list-style-type: none"> <li>• Splitting a paragraph</li> <li>• Combining paragraphs</li> <li>• Paragraph marks</li> </ul>	Practical exercises
Select rows, columns or the whole table	<ul style="list-style-type: none"> <li>• Inserting a table</li> <li>• Selecting               <ul style="list-style-type: none"> <li>○ Rows</li> <li>○ Columns</li> <li>○ Table</li> </ul> </li> </ul>	Practical exercise on selecting rows, columns, table

Specific objectives	Contents	Teaching / learning activities
Edit a table	<p>Tables</p> <ul style="list-style-type: none"> <li>• Inserting a column</li> <li>• Inserting a row</li> <li>• Deleting table</li> <li>• Deleting row</li> <li>• Deleting column</li> <li>• Merging cells</li> <li>• Splitting cells</li> </ul>	Edit and handle a table using MS Word.
Perform simple calculations	<p>Mathematical calculations</p> <ul style="list-style-type: none"> <li>• Sum</li> <li>• Product</li> <li>• Maximum</li> <li>• Minimum</li> <li>• Average</li> </ul>	Familiarise with simple calculations
Insert an Ms Graph chart	<ul style="list-style-type: none"> <li>• Chart</li> <li>• Datasheet</li> <li>• Legend</li> </ul>	Practical exercises on Ms Graph charts
Print a Word document	<p>Printing a Word document</p> <ul style="list-style-type: none"> <li>• Print preview/Showing multiple pages</li> <li>• File - print</li> <li>• Print dialogue box</li> <li>• Printer name</li> </ul>	Practical exercises under supervision of teacher



## CHAPTER III : MICROSOFT EXCEL

Specific objectives	Contents	Teaching / learning activities
Explain the use of spreadsheet	<ul style="list-style-type: none"> <li>• Introduction to spreadsheet</li> </ul>	Using a spreadsheet, get feedback from students on the area of application of Ms Excel
Identify the title bar, menu bar, toolbars, ruler, the scroll bar, formula bar	<p><b>Microsoft Excel Environment</b></p> <ul style="list-style-type: none"> <li>• Title Bar</li> <li>• Menu Bar</li> <li>• Toolbars</li> <li>• Worksheet</li> <li>• Formula bar</li> <li>• Task bar</li> </ul>	Practical exercises on the insertion/hiding of the toolbars, ruler
Launch Ms Excel	<ul style="list-style-type: none"> <li>• New workbook</li> <li>• Locating files</li> </ul>	Practical exercises on launching Ms Excel
Create, save, close a new excel workbook	<ul style="list-style-type: none"> <li>• Ms Excel</li> <li>• Start menu</li> <li>• Buttons</li> <li>• Menu</li> <li>• File name</li> </ul>	Practical exercises on Creating, saving and closing a new Excel workbook
Open an existing excel work book	<p>New workbook</p> <p>Locating files</p> <ul style="list-style-type: none"> <li>• Folder</li> <li>• File</li> </ul>	Practical exercises on opening an existing Excel workbook

Specific objectives	Contents	Teaching / learning activities
<p>Work with worksheet</p> <p>Perform simple calculations</p>	<p>Data input</p> <p>Operations</p> <ul style="list-style-type: none"> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Auto sum</li> </ul>	<p>Practical exercises on entering data</p> <p>Practical exercises on addition, subtraction, division, multiplication and auto sum</p>

## DISTRIBUTION OF LESSONS: SENIOR 2

### 1<sup>ST</sup> TERM

#### CHAPTER I: INTRODUCTION TO COMPUTERS

Week	Specific objectives	Contents	Timing (periods)
1	Use external memories	External Memory (removable drives)	2
2	Use some text editors functions	Text Editor functions	2
3	Manage and use files	File management	2
4	Manage and use files	Familiarising with file management	2
5	Evaluation		2
<i>Sub total</i>			<b>10</b>

#### CHAPTER II : MICROSOFT WORD

Week	Specific objectives	Contents	Timing (periods)
6	Open an existing document	Localization of a file/folder	1
	Type a text	Keyboard Keys	1
7	Type a text	Keyboard Keys	2
8	Type a text	Keyboard Keys	2
9	Type a text	Keyboard Keys	1

Week	Specific objectives	Contents	Timing (periods)
	Insert words in the middle of a text	Inserting words	1
10	Evaluation		2
11	Revision		2
12	Exams		2

*Sub total*

**14**

## 2<sup>nd</sup> TERM

### Ms Word

Week	Specific objectives	Contents	Timing (periods)
1	Format a text	Formatting a text	2
2	Edit a text	Text editing	2
3	Edit a text	Text editing	2
4	Move around a text	Moving around a text	2
5	Manipulate paragraphs	Manipulating paragraphs	2
6	Select rows, columns or the whole table	Selecting rows, columns or the whole table	2
7	Edit a table	Editing table	2
8	Perform simple calculations	Mathematical calculations	2

<b>Week</b>	<b>Specific objectives</b>	<b>Contents</b>	<b>Timing (periods)</b>
9	Insert an Ms Graph chart	Ms Graph chart	2
10	Print a Word document	Printing a Word document	2
11	Evaluation		2
12	Revision		2
13	Exams		2
<i>Sub total</i>			<b>26</b>

### 3<sup>rd</sup> TERM

#### CHAPTER III : MICROSOFT EXCEL

<b>Week</b>	<b>Specific objectives</b>	<b>Contents</b>	<b>Timing (periods)</b>
1	Explain the use of spreadsheet	Introduction to spreadsheet	1
	Identify the title bar, menu bar, toolbars, ruler, the scroll bar, formula bar	Microsoft Excel Environment	1
2	Launch Ms Excel	Microsoft Excel Environment	1
	Create, save, close a new excel workbook	Creating a workbook	1
3	Open an existing excel work book	Locating files	1
	Work with worksheet	Data input	1

<b>Week</b>	<b>Specific objectives</b>	<b>Contents</b>	<b>Timing (periods)</b>
4	Work with worksheet	Data input	2
5	Work with worksheet	Data input	2
6	Perform simple calculations	Mathematic calculations	2
7	Perform simple calculations	Exercises on simple calculations	2
8	Perform simple calculations	Exercises on simple calculations	2
9	Perform simple calculations	Exercises on simple calculations	2
10	Evaluation		2
11	Revision		2
12	Exams		2
<i>Sub total</i>			<b>24</b>

## SENIOR 3

### CHAPTER I: INTRODUCTION TO COMPUTERS

Specific objectives	Contents	Teaching / learning activities
Manage and use files	File management <ul style="list-style-type: none"><li>• File/folder</li><li>• New file</li><li>• Copy/move a file/folder</li><li>• Drag and drop objects</li><li>• Rename/delete files/folders</li><li>• Recycle bin</li></ul>	Familiarise with creating, copying, moving deleting files and folders
Use Windows explorer	Windows explorer <ul style="list-style-type: none"><li>• Definition</li><li>• Opening windows Explorer</li><li>• Adding an item located in Windows Explorer to the Start menu</li></ul>	Practical exercises on opening Windows Explorer
Create shortcuts	Shortcuts	Students create shortcuts of various icons
Play games	Games	Students play games
Change date and time	Date and time Task bar	Students change date and time from the task bar
Cancel print task	Printer name	Exercises on stopping, cancelling and restarting print jobs
Temporarily stop and restart printing jobs	Printing jobs	

## CHAPTER I: MICROSOFT WORD

Specific objectives	Contents	Teaching / learning activities
<p>Insert office objects</p> <p>Edit a table</p>	<ul style="list-style-type: none"> <li>• Insert objects</li> <li>• Clip Art</li> <li>• Word Art</li> </ul> <p>Tables</p> <ul style="list-style-type: none"> <li>• Merging cells</li> <li>• Splitting cells</li> <li>• Formula</li> <li>• Table properties               <ul style="list-style-type: none"> <li>○ Specify row height</li> <li>○ Specify column width</li> </ul> </li> </ul>	<p>Practical exercises on inserting office objects such as Clip Art, Word Art, etc...</p> <p>Exercises on editing tables</p>
<p>Print a document</p>	<ul style="list-style-type: none"> <li>• Print preview</li> <li>• Print dialog box :               <ul style="list-style-type: none"> <li>○ Printing a copy or multiple copies</li> <li>○ Printing in white /black or color</li> <li>○ Printing a range of pages</li> <li>○ Printing current page</li> </ul> </li> <li>• Cancelling printing tasks</li> </ul>	<p>Print one or more copies of a colored document, then in black and white</p> <p>Perform various exercises</p>



## CHAPTER II: MICROSOFT EXCEL

Specific objectives	Contents	Teaching / learning activities
Format cells	<b>Formatting cells</b> <ul style="list-style-type: none"> <li>• Font, font size, font color</li> <li>• Adjusting Column width</li> <li>• Adjusting row height</li> <li>• Inserting columns</li> <li>• Inserting row</li> <li>• Creating borders</li> <li>• Merging cells</li> <li>• Patterns</li> </ul>	Practical exercises
Delete the content of the cell	<b>Deleting</b> <ul style="list-style-type: none"> <li>• Delete all</li> <li>• Delete the contents</li> </ul>	Practical exercises on deleting cells
Sort a list	<ul style="list-style-type: none"> <li>• Ascending Order</li> <li>• Descending Order</li> </ul>	Practical exercises on Sorting
Copy data	Copying data by <ul style="list-style-type: none"> <li>• Filling method</li> <li>• Copy - paste</li> </ul>	Practical exercises on copying data

Specific objectives	Contents	Teaching / learning activities
Perform mathematical operations	<b>Numbers and mathematical Calculations</b> <ul style="list-style-type: none"> <li>• Addition</li> <li>• Multiplication</li> <li>• Division</li> <li>• Subtraction</li> <li>• AutoSum</li> <li>• Average</li> </ul>	Practical exercises
Edit a worksheet	<ul style="list-style-type: none"> <li>• Select</li> <li>• Copy</li> <li>• Cut</li> <li>• Paste</li> <li>• Search/Find and replace</li> </ul>	Practical exercises on Selecting, copying, cutting, and pasting data.
Come back on command	<ul style="list-style-type: none"> <li>• Command “UNDO” and “REDO”</li> </ul>	Practical exercises on deleting and restoring the contents of a group of cells
Insert or delete lines, columns and cells	<ul style="list-style-type: none"> <li>• Inserting and deleting lines, columns and table</li> <li>• Inserting and deleting cells or group of cells</li> </ul>	Practical exercises on inserting and deleting lines, columns, cells and groups of cells

## DISTRIBUTION OF LESSONS: SENIOR 3

### 1<sup>st</sup> TERM

#### CHAPTER I: INTRODUCTION TO COMPUTERS

Week	Specific objectives	Contents	Timing (periods)
1	Manage and use files	File management	2
2	Use Windows explorer	Windows explorer	2
3	Use Windows explorer	Familiarise with Windows	2
4	Create shortcuts	Creating short cuts	1
	Change date and time	Date and time	1
5	Play games	Games	2
6	Play games	Games	2
7	Play games	Games	2
8	Cancel print task	Printer name	2
9	Temporarily stop and restart printing jobs	Printing jobs	2
10	Evaluation		2
11	Revision		2
12	Exams		2
<i>Sub total</i>			<b>24</b>

## 2<sup>ND</sup> TERM

### CHAPTER II: MICROSOFT WORD

Week	Specific objectives	Contents	Timing (periods)
1	Insert office objects	Office objects	2
2	Insert office objects	Exercises on Office objects	2
3	Edit a table	Table	2
4	Edit a table	Exercises on tables	2
5	Edit a table	Exercises on tables	1
	Print a document	Print preview and Print dialog box	1
6	Print a document	Exercises on printing	2
7	Evaluation		2
<i>Sub total</i>			<b>14</b>

### CHAPTER III: MICROSOFT EXCEL

Week	Specific objectives	Contents	Timing (periods)
8	Format cells	Formatting cells	2
9	Format cells	Exercices sur le formatage d'un texte	2
10	Format cells	Exercices sur le formatage d'un texte	2
11	Delete the content of cells	Deleting contents, cells and contents	1
	Sort a list	Sorting (ascending, descending order)	1
12	Revision		2
13	Exams		2

### 3<sup>RD</sup> TERM

#### Ms Excel

Week	Specific objectives	Contents	Timing (periods)
1	Copy data	Copying data by Filling method, Copy - paste	2
2	Perform mathematical operations	Numbers and mathematical Calculations	2
3	Perform mathematical operations	Exercices on numbers and mathematical Calculations	2
4	Perform mathematical operations	Exercices on numbers and mathematical Calculations	2
5	Edit a worksheet	Editing tools (Select, Copy , Cut , Paste, Search/Find and replace)	2
6	Edit a worksheet	Exercices on editing tools	2

<b>Week</b>	<b>Specific objectives</b>	<b>Contents</b>	<b>Timing (periods)</b>
7	Evaluation		2
8	Come back on command	Command “UNDO” and “REDO”	1
	Insert or delete lines, columns and cells	Inserting and deleting lines, columns and table	1
9	Insert or delete lines, columns and cells	Inserting and deleting cells or group of cells	2
10	Evaluation		2
11	Revision		2
12	Exams		2
<i>Sub total</i>			<b>26</b>

**APPENDIX: Weekly time – Allocation for Lower Secondary Education**

<b>Subject</b>	<b>Senior 4</b>	<b>Senior 5</b>	<b>Senior 6</b>
Religion or Ethics	1	1	1
Kinyarwanda	2	2	2
French	5	5	5
English	5	5	5
Maths	6	6	6
ICT	2	2	2
Physics	2	2	2
Chemistry	2	2	2
Biology	2	2	2
Geography	2	2	2
History	2	2	2
Artistic initiation (Music & Drawing)	1	1	1
Initiation to Economy (Commerce & Accounts, Domestic Economy, Agri livestock)	2	2	2
Political Education	2	2	2
S.P.E.	1	1	1
<b>TOTAL</b>	<b>37</b>	<b>37</b>	<b>37</b>

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