MINISTERE DES ENSEIGNEMENTS SECONDAIRES
MINISTRY OF SECONDARY EDUCATION

INSPECTION GENERALE DES ENSEIGNEMENTS
INSPECTORATE GENERAL OF EDUCATION

COMPUTER SCIENCE
CURRICULUM FORM ONE AND FORM TWO

Observe the environment and choose better study options for a fulfilled life

INSPECTION DE PEDAGOGIE CHARGEE DE L'ENSEIGNEMENT DE L'INFORMATIQUE
INSPECTORATE OF PEDAGOGY IN CHARGE OF COMPUTER SCIENCE

August 2014

REPUBLIQUE DU CAMEROUN
Paix - Travail – Patrie

MINISTERE DES ENSEIGNEMENTS
SECONDAIRES

INSPECTION GENERALE DES
ENSEIGNEMENTS

REPUBLIC OF CAMEROON
Peace -Work – Fatherland

MINISTRY OF SECONDARY EDUCATION

INSPECTORATE GENERAL OF EDUCATION

Order N°_____264/14_____/MINESEC/ IGE ………………. 1 3 AUG 2014

To outline the syllabuses for Form I and Form II of Secondary General Education.

THE MINISTER OF SECONDARY EDUCATION,

Mindful of the Constitution;
Mindful of the Law N° 98/004 of 14 April 1998 to lay down Guidelines for Education in Cameroon;
Mindful of Decree N°2011/408 of 9 December 2011 to reorganise the Government;
Mindful of Decree N°2011/410 of 9 December 2011 to form the Government;
Mindful of Decree N°2012/267 of 11 June 2012 to organise the Ministry of Secondary Education;

HEREBY ORDERS AS FOLLOWS:

<u>**Article 1**</u>: The syllabuses for Form I and Form II of Secondary General Education shall be outlined as follows:

PREFACE

SYLLABUSES FOR 21ST CENTURY CAMEROON

At the beginning of this millennium, as Cameroon chooses to become an emerging nation by the year 2035, its secondary education sector faces many challenges. It should:

- Offer quality training and education to most young Cameroonians within a context marked by large classes in primary education;
- Prepare them for smooth insertion into a more demanding job market worldwide, through a pertinent teaching /learning process.

In addition, training tools have significantly evolved in their conception and implementation. A school that was mostly based on contextualised knowledge acquisition has given room, all over the world, for a school that aims at empowering learners to help them cope with complex and diversified real life situations. Instead of a school cut off from society, we now have a school deeply rooted in a society that takes into account sustainable development, local knowledge and cultures.

The implementation of this new school ,prescribed by the Law to lay down guidelines for education in Cameroon, and the necessity for socio-professional insertion require the adoption of a pedagogic paradigm for the development of syllabuses relating to **"The competence based approach with an entry through real life situations "**.

In this perspective, new syllabuses for Secondary General Education, those of Teacher Education and Training Referentials for Technical Education are part of this great change for the re-dynamisation of our education system. They are in line with the implementation of the provisions of Growth and Employment Strategy Paper (DSCE) which, by the year 2020, specifies the minimum amount of knowledge which each Cameroonian is supposed to possess by the time they leave the first cycle of secondary education.

These syllabuses define essential competencies that should be acquired by learners within the first cycle of secondary education, in terms of knowledge, know how and attitudes. They equally define the framework that will enable teachers to organise their pedagogic activities.

While congratulating all those who designed these syllabuses, I hereby exhort all the members of the education family, notably teachers, to acquaint themselves with the new paradigm, to effectively implement it and make the Cameroon education system successful.

The Minister of Secondary Education

Louis Bapes Bapes

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FIRST CYCLE SYLLABUS REVIEW
A PARTICIPATORY AND INNOVATIVE APPROACH

The syllabuses that were drawn up by the Inspectorate General of Education in the Ministry of Secondary Education since 2012 are in accordance with the major guidelines for education in general and secondary education in particular as they are enshrined both in the 1998 law to lay down guidelines for education in Cameroon and in the 2009 Growth and Employment Strategy Paper(DSCE) .

These orientations could be summarised, amongst others, to train within the framework of an emerging Cameroon in the year 2035, citizens that will have a good mastery of the two official languages (English and French), deeply rooted in their cultures but open to a world in search for sustainable development and dominated by Information and Communication Technologies.

Conceived in the various Inspectorates of Pedagogy, and later introduced for trialling in secondary and high schools during the 2012/2013 school year, these syllabuses were developed with the contributions of classroom teachers and teacher trade unionists.

The new syllabuses had to undergo many changes:

- a shift from a skill based approach to a competence based approach through real life situations;
- a shift from a school cut off from society to one that prepares citizens for a smooth insertion into socio-cultural and economic activities ;
- a shift from an evaluation of knowledge to that of competences necessary to sustainable development.

When these new changes and orientations were taken into account, they naturally led to a shift of paradigm within the curriculum reform process. The option we have adopted is the competence based approach through real life situations.

The syllabuses of the first cycle of Secondary General Education are broken down into 5 areas of learning, each of them containing a given number of disciplines as shown in the table below.

For 6e and 5e (Francophone sub-system of education), the weekly workload and the quota as compared to the total number of hours on the time table (32 h) are displayed in the table below.

Domaines d'apprentissage	Volume horaire	Quota
Langues et Littératures	10 h	30%
Sciences et Technologies	08 h	25%
Sciences Humaines	06 h	20%
Arts et Cultures Nationales	04 h	15%
Développement Personnel	03 h	10%

One hour is allotted for prep.

For the Anglophone sub-system of education (Form I and Form II) the same information is summarised in the table below.

Areas of Learning	Weekly workload	Quota
Languages and Literature	10 h	30%
Science and Technology	08 h	25%
Social Sciences	06 h	20%
Arts and National Cultures	04 h	15%
Personal Development	03 h	10%

Areas of learning	Disciplines
1- Languages and Literature	- French - English - Living Languages II - Ancient Languages - Literature(in English and in French)
2- Science and Technology	- Mathematics - The Sciences(Physics, Chemistry, Technology, Life and Earth Sciences) - Computer Science
3- Social Sciences/Humanities	- History - Geography - Citizenship Education
4- Personal Development	- Sports and Physical Education - Manual Labour
5- Arts and National Cultures	- National Languages - National Cultures - Arts

The Inspector General of Education

Dr. Mrs Evelyne Mpoudi Ngolle

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The Inspector General of Education

Dr. Mrs Evelyne Mpoudi Ngolle

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END - OF - FIRST CYCLE LEARNER'S EXIT PROFILE

The first cycle of Secondary General Education admits young graduates from primary schools aged between ten and fourteen. Its general objectives are not only to build intellectual, civic and moral skills in these children but also competences and fundamental knowledge which will either enable them to foster their education in the second cycle, or to prepare them for a smooth insertion into the job market after professional training.

Thus, within the framework of these new syllabuses, the learner is expected , after the first cycle of secondary education, to be able to use his/her competences to solve problems through family of situations relating to domains of life as indicated in the table below:

N°	Domains/Areas of life	Families of situations to be treated in the 1st cycle
1	Family and social life	• Participation in family life • Healthy professional relationships • Social integration
2	Economic life	• Discovery of income generating activities • Discovery of the job market, social roles, jobs and professions • Self confidence, aspirations, talents, self potential • Practising healthy eating habits
3	Environment , health and well being	• Preservation of the Environment • Quest for a healthy life style • Choosing and practising a healthy life style
4	Citizenship	• Mastery of rules and regulations governing the Cameroonian society • Discovery of cultural values and customs of the Cameroonian society
5	Media and Communications	• Discovery of the media world • Discovery of Information and Communication Technologies

In order to achieve these objectives, the learner should be able to mobilise , within the various disciplines and constructive areas of learning of the syllabuses, all the pertinent resources in terms of knowledge, know how and attitudes.

The next table gives you a general overview of the afore-mentioned objectives, while the syllabus for each subject unfolds, in details, all the expected competences per level and at the end of the 1st cycle.

Areas of Learning	Disciplines	Expected outcomes at the end of the 1st cycles
1-Languages and Literature	**Living languages:** English, French , German, Italian, Spanish, Chinese, Etc.	**French and English , L1** Receptive skills: reading and listening Read in an autonomous way, different types of texts related to areas of life as defined in the syllabus; Listen and understand various texts related to the above mentioned areas of life Productive skills: speaking and writing Produce various types of texts , of average length related to these areas of life; Language tools: appropriate use of various language tools in order to produce and read types of texts related to that level;
	English to Francophone learners French to Anglophone learners	Communicate accurately and fluently using all four basic skills in language learning; Be able to transfer knowledge learnt in class to real life situations out of the classroom; Be able to cope and survive in problem solving situations;
		Living languages II Receptive skills: reading and listening Read and understand simple texts on social life, citizenship, the environment, well being and health, media etc.. Listen and get oral information in order to simply interact during communication situations related the various domains of life. Productive skills: speaking and writing Sing, recite, dramatise , orally answer questions related to the various domains of life as defined in the syllabus; Write short passages on various familiar topics.

	Ancient languages: Latin, Greek **National languages** **Literature** Cameroon Literature; French Literature; Francophone Literature; Other literatures	Develop general knowledge through ancient languages and cultures; know the origins of the French language for linguistic mastery; Carry out elementary tasks in translation.
2-Science and Technology	Mathematics, The Sciences Computer Science	Use mathematic knowledge skills and values with confidence to solve real life problems within the different domains of life; Communicate concisely and unambiguously and develop power of mathematical reasoning (logical thinking, accuracy and spatial awareness).
		The Sciences: Acquire the fundamentals of sciences in order to understand the functioning of the human body, the living world, the earth and the environment; Acquire methods and knowledge to understand and master the functioning of technical objects made by man to satisfy his needs; Demonstrate attitudes to protect his/her health and environment.
		Computer Science : Master the basics of Information and Communication Technologies; Exploit and use ICTs to learn.
3- Social Sciences /Humanities	**History** **Geography** **Citizenship Education**	Possess cultural references to better locate events in time and space within a democratic system and become a responsible citizen. **History:** Acquire a common culture ; be aware of heritage from the past and current challenges; **Geography :**

		Develop one's curiosity and knowledge of the world; Get acquainted with landmarks to find your way and fit in the world. **Citizenship Education:** Possess essential knowledge in rights and duties in order to fulfil his/her citizenship.
4- Personal Development	**Moral Education;** **Home Economics;** **Sports and Physical Education** **Health Education**	Develop his / her physical abilities/skills ; Get ready for physical challenges , save and regain energy after physical efforts; Identify risk factors; possess basic knowledge and principles in hygiene and health education; Demonstrate a sense of self control and appreciate the effect of physical activities. Conceive and draw up sports and cultural animation projects; Acquire methods and develop a high sense of efforts; Conceive, draw up and implement projects that will enable one to project his/her image and feel the well being inspired by self-confidence.
5- Arts and National Cultures	**Arts/Artistic Education;** **National Cultures**	**Artistic Education:** Observe and appreciate works of art; Carry out an artistic activity; Gradually acquire the love for personal expression and creativity; Possess a mastery of creativity in music, plastic arts and the performing arts. Dramatise, recite texts (poems, tales, proverbs, etc.) relating to various areas of society; Practise the different dramatic genres: sketches, comedy, tragedy, drama, etc. **National languages and Cultures** Demonstrate a mastery of Cameroon cultures; Visit the various cultural areas of the country in order to discover their characteristics; Demonstrate a mastery of basic rules in writing Cameroonian languages as well as basic grammatical notions applied to these

		languages; Demonstrate a mastery of one of the national languages at 3 levels: morpho-syntax, reception and production of simple oral and written texts.

Even though the learners acquires skills in different disciplines, these competences are accompanied by other skills known as cross curricular competences related to intellectual, methodological, social and personal areas of learning.

6- Cross curricular competences	Intellectual and Methodological domains	Solve Problem in a given situation; Use knowledge skills and values with confidence in order to solve real life problems within the different domains of life; With confidence, find useful information to solve problems he/she is faced with; Give his/her opinion ; Support his/her opinion with strong arguments ; Assess him/herself with a view to remediation; Demonstrate basic knowledge in note taking ; Conceive and realise individual projects; Analyse and summarise information, give feedback and report orally or in writing. Develop problem solving approaches; Exploit and use ICTs in his/her activities.
	Social and Personal Domains	Interact positively and assert his/her personality while respecting that of other people; Join team work, fit in a common initiative project /group; Demonstrate interest in cultural activities ; Develop a sense of effort, love for work, perseverance in tasks or activities carried out ; Understand and accept others in intercultural activities; Accept group assessment.

The resources to be mobilised by the learner are found in many disciplines and areas of learning. So it is important to implement these syllabuses not in isolation but as interrelated subjects. These remarks hold both for subject and cross curricular competences. They are so called to show that they should be developed through teaching/learning activities of the different subjects. The development of subject and cross curricular competences concern the entire education family as they are capable of inspiring an educative project and the putting in place of extra curricular activities. The ultimate training goal of these syllabuses, at the end of the first cycle, is to enable the learner to be self reliant, to be able to keep on learning through out his/her life, to contribute to sustainable development and become a responsible citizen.

TEACHING SYLLABUS

COMPUTER SCIENCE

FORM 1 AND FORM 2

WEEKLY TEACHING LOAD / CLASS: 02 HOURS

ANNUAL TEACHING LOAD / CLASS: 50 HOURS

Coefficient / CLASS: 02

CONTENT

I. INTRODUCTION

The rapid growth of Information and Communication Technologies (ICT) has within the past decade, made remarkable progress of applications in everyday life and in professional arena. Be it in social life, business, or education, every aspect of society is today impacted by the use of tools based on Information and Communication Technologies.

The ICT growth cannot be mentioned without involving the practice of pedagogy for its continuous existence. Hence to foster understanding and use of ICTs in our daily life, we need to promote the teaching and learning of Computer Science in schools.

The necessary technological tools are composed of computers, servers, video projectors, interactive white boards, cameras, storage devices, endow with productivity software (word processing, spreadsheets, didactic, graphic and presentation packages, etc.). The use of these technology tools and interaction with digital contents as integral parts of pedagogic activities would enhance learner comprehension and creativity in the development and use of information in the society. This of course, necessitates a proper design and implementation of the Computer Science syllabus.

Computer Science is a transversal discipline and considering its importance in the teaching learning process, the Government of Cameroon opted to institute this as a subject discipline in the 2002/2003 school year in secondary schools. This decision was accompanied by implementation measures such as the creation of the Multimedia Resource Centers, creation of the department for computer science and ICT in the Higher Teachers Training colleges, creation of the computer science series in secondary schools, with a view to facilitating ICT integration: -its use as a tool to improve the quality of the teaching/learning process. Thus computer science becomes a subject discipline in its own right in the Cameroon school system. This new syllabus has as objective to initiate the learner to the basic concepts of computer science by introducing a range of competences that would allow the learner to progressively discover the working environment.

In this perspective, the syllabuses for Form 1 and Form 2 of Secondary Education are composed of two modules each. Each module outlines the essential competencies to be attained by the learner during the academic year. The total workload consists of 50 hours of teaching for Form 1 and 50 hours of teaching for Form 2.

II. FIRST CYCLE LEARNER PROFILE

The learner profile of the first cycle of secondary school is summarized in three main components:
1. Demonstrate basic problem solving competences, ethical and responsible,
2. Employ ICT to enhance learning,
3. Demonstrate understanding of basic concepts of computer Science.

This will enable the learner to demonstrate competences as follows:
- Demonstrate the use of the computer in a range of applications,
- Demonstrate an understanding of the characteristics of computer hardware, software and communication systems,
- Describe and explain the use of different forms of data organisation and processing,
- Understand and explain the need for a systematic approach to the solution of problems,
- Understand basic algorithms in programming, and deduce results from conditional statements (branch and loop statements),
- Comment on the social, environmental, health, economic, and other issues and consequences of the use of computers.
- Analyse a problem and identify where, in its solution, a computer would be appropriate,
- Select and apply appropriate techniques for the computer based solution of problems, and
- Design, implement and document effective solutions to problems, using appropriate hardware and software.

III. LEARNING DOMAIN AND CORRESPONDING DISCIPLINES

The Computer Science syllabus for Form One and Form Two is within the learning domain of **Sciences and Technology**, which regroup other subjects including:
- Mathematics,
- Biology,
- Physics,
- Chemistry;
- Technology.

IV. CONTRIBUTION OF COMPUTER SCIENCE SYLLABUS TO LEARNING DOMAIN

The Form 1 and Form 2 syllabuses have been designed to initiate learners to basic concepts of Computer Science by introducing a collection of essential knowledge and competences which would enable the learner to progressively discover the world of computing. The learner would explore the computer and develop aptitudes in manipulating the computer system devices including software to realize various tasks and to enhance learning in other domains such as: the arts, natural languages and cultures, and human sciences.

V. CONTRIBUTION OF COMPUTER SCIENCE SYLLABUS TO LIFE SITUATIONS

All domains of life are concerned by the tremendous development of Information and Communication Technologies. Nevertheless, Computer Science being a transversal discipline integrates well in all domains of life including the following life-study area

Table 1: Summary of contribution of Computer Science syllabus to Life Situation

LIFE SITUATION	CONTRIBUTION
Social and family life	Read and understand business correspondence
	Manipulate electronic devices
	Communicate with the help ICT
Business	Make rational use and management of resources and services
Health and environment	Take actions and act wisely to protect and harness
Citizenship	Ethical usage of ICT resources
Media and communication	Facilitate communication through multimedia resources
	Manage multimedia resources
	Manipulation of communication devices (cell phones, radio, etc)

VI. FAMILY OF LIFE SITUATIONS ADDRESSED BY COMPUTER SCIENCE SYLLABUS

In order to develop competencies in learners, the Computer Science syllabus explores the following family of life situations:
- Computing environment;
- Acquainting with basic computer concepts, computer architecture, and software;
- Processing data and producing information using a computer;
- Searching and sharing information through use of the Internet and computer networks;
- Ethics

VII. SUMMARY TABLE OF MODULES OF THE COMPUTER SCIENCE SYLLABUS

The Table below outlines modules for Form One and Form Two

Level	Modules	Duration
Form 1	**Module1**: Computing environment	25 H
	Module 2: Computer hardware, software, and basic concepts.	25 H
Form 2	**Module 1**: Organizing, selecting, and using computer resources	25 H
	Module 2: Searching and communicating using the Internet.	25 H

VIII. PRESENTATION OF MODULES

A. MODULES FOR FORM ONE

A.1: MODULE 1

A.1.1 TITLE OF MODULE: THE COMPUTING ENVIRONMENT

Duration: 25 H

A.1.2 PRESENTATION OF MODULE

This is the first module for Form 1 which seeks to develop in the learner basic competencies needed in the use of computers and computing related tools. This module is expected to guide the learner to discover the computing environment and leads the learner to using digital tools.

A.1.3 CONTRIBUTION OF MODULE TO CURRICULAR GOALS AND ACHIEVEMENT

The learner should by the end of this module, be able to manipulate the computer and related accessories, and distinguish productivity software in the course of teaching/learning activities and in varied domains, consulting and preparing documents, checking outcomes obtained from processing information through computer use, and respect of basic intellectual proprietary rights. Some of these activities therefore, are designed to contribute to the development of the learner's sense of responsibility. This module is therefore expected to initiate the learner to basic concepts in Computer Science. It equally presents a collection of essential knowledge, skills, and attitudes that will lead the learner to progressively explore the computer environment.

A.1.4 CONTRIBUTION OF MODULE IN THE LEARNING DOMAIN

The module is expected to lead the learner to the first operational step in the manipulation of the computer system by exposing the learner to a wide range of ICT tools (input, output peripherals, and Internet resources). As a result, this module facilitates learning of the other subjects.

A.1.5 CONTRIBUTION OF MODULE TO THE TEACHING SYLLABUS AND OTHER DOMAINS OF LIFE

This module would enable the learner to:
- Use basic computer concepts, and ICT tools,
- Select and use productivity software,
- Maintain ethical attitudes with regards to digital contents and ICT resources.

A.1.6. Table of main components of Module 1

CONTEXTUALISATION		COMPETENCIES TO BE ATTAINED			RESOURCES		
Family of life situations	**Examples of life situations**	**Categories of actions**	**Examples of actions**	**Basic knowledge**	**Attitudes**	**Other resources**	**Duration**
Computing environment	•Identifying domains of use of a computer •Basic notion of computer maintenance •Using the computer tool (use of didactic software) •Using an appropriate peripheral •Using a didactic software package •Transcription of a list •Designing greeting cards •Computer safety •Discovering and navigating the Internet •Chatting and writing short messages •Ethics	Determination of material and software needs	• Identify some areas of computer applications • Enumerate types of software • Enumerate examples of system software • Enumerate examples of application software • Select material and software needs for specific purpose	• Areas of computer application (examples of cases) • Hardware • Software **Timelines** • Evolution of computers **Fundamental Notions** • Information • Data • Processing • Computer • Program • Software • Utility • Browsers • Search engine • Local Internet Service Provider **Notion of Electronic devices** • Electronic components • Integrated circuits • Electronic cards **Notion of Proprietary Rights** • License • Legacy and Authors' Rights	• Determination •Team spirit • Collaborative work	•**Didactic material** •Computer Laboratory •Productivity software •Basic parts of a computer •Computer manual •Specialized documents •Digitalized library or resources •Boards •Video projector **Human** •Teacher • professionals	6 H
		Manipulation of the computer •	• Reproduce the basic functional diagram of a computer system • Classify basic devices as Input and Output peripherals • Sketch the principal parts of a Central Processing Unit • Packaging and carrying computer materials • Using magnetic, optical and wireless devices • Conserving computer materials • Connecting computer devices • Start and Quit your computer operating system (system software) • Open, Close, and Exit your computer programs or applications • State the main steps for given software to become functional on screen. • Move conveniently your cursor and the mouse pointer • Select and move objects with your mouse, •				6 H
		•Initiation to algorithmic thinking	• Writing basic solution procedure to problems • Ordering solution steps				2 H
		Discover and use appropriate Input and Output peripherals	• Describe the basic parts of keyboard, mouse, printer, and screen, • Use productivity software in the discovery of Input and Output peripherals, • Use a computer to write out messages on greeting cards, • Enter marks and perform calculations with marks, • Transcribe a list, • Modify texts and graphics (insert, delete, search and replace, …)				5 H
		Adopt attitudes of citizenship with regards to digital contents and computers	• Verify the correctness of typed data • Check the validity of outcomes from processing • Support with examples your findings ; • Recognize and support intellectual proprietary rights ; • Outline some elements of digital citizenship				2 H
		Discovery of the Internet	• Start a navigator (Web and Ordinary Browsers) • Start and Access a search engine • Start a web page • Navigate on the web				4 H

A.2 MODULE 2

A.2.1 TITLE OF MODULE : COMPUTER HARDWARE, SOFTWARE, AND BASIC CONCEPTS

Duration: 25 H

A.2.2 PRESENTATION OF MODULE

This second module has as goals to encourage the learner to:
- Discover the functionality of a computer and the use of basic software,
- Manage and conserve data on storage devices or facilities,
- Carry out basic computer maintenance,
- Use the computer to carry out basic tasks

This module is expected to get the learner acquainted with basic computer concepts, architecture, and software. It equally presents a collection of competencies which would cause the learner to progressively learn the first concepts in computer architecture and software.

A.2.3 CONTRIBUTION OF MODULE TO ACHIEVEMENT AND CURRICULAR GOALS

The essential knowledge on written communication including management of data would encourage the learner to exercise its societal roles in business, social and family life, and above all in media and communication world.

A.2.4 CONTRIBUTION OF MODULE IN THE AREA OF LEARNING

This module is meant to encourage the learner to make use of the computer to process and organize data. These actions would foster learning, reading and interpretation of documents, as related to other disciplines in the science and technology domain.

A.2.5 CONTRIBUTION OF MODULE TO THE TEACHING SYLLABUS AND OTHER DOMAINS OF LIFE

The main objective is to encourage the learner to become autonomous with the computer. In this regard, the learner should be able at the end of the module to identify and select appropriate peripherals with respect to the task at hand as well as to rationally manage storage devices.

A.2.6. TABLE OF MAIN COMPONENTS OF MODULE 2

CONTEXTUALISATION		COMPETENCIES TO BE ATTAINED		RESOURCES			
Family of life situations	Examples of life situations (skills)	Categories of actions	Examples of actions	Basic knowledge	Attitudes	Other resources	Duration
Familiarization with basic computer concepts, hardware, and software	• Using peripherals (Input and Output devices) • Using appropriate hobbyist and productivity software packages • Doing basic computer maintenance • Discovery with an operating system • Storage of data • Written communication	Recognition of Input and Output peripherals	• Enumerate types of peripherals (Input, Output, Input and Output combination devices) • Enumerate types of printers • Enumerate magnetic, laser, optical, wireless devices • Enumerate flash-based devices • Start and Close a peripheral	**Basic notion for configuring programs (** software) **Issues with Maintenance** (Hardware) **Basic notions of storage** • Memory and storage devices • Characteristics of memories **Notions of processing and organizing data** • Files • Folders	• Determination • Team work • Collaborative work	• **Didactic material** • Computer Laboratory • Productivity software • Basic parts of a computer • Computer manual • Specialized documents • Digitalized library or resources • Boards • Video projector **Human** • Teacher • professionals	4 H
		Doing basic computer maintenance	• Clean a computer (keyboard, system unit, screen, mouse, printer, CD-ROM, …), • Conserve storage devices (CD-ROM, tapes, …), • Enumerate materials used to protect computers.				3 H
		Using basic elements of an operating system	• Enumerate system software, • State functions of a system software, • Identify the major parts of a graphical systems software (windows, icons, dialogue boxes, …), • State the various execution processes of commands working with mouse or keyboard • Start and Quit a named software, • Modify date and clock settings, • Open and quit a session, • Check and use help facilities in software applications.				8 H
		Processing and organizing data using the computer	• Perform file operations (save, save as and delete, …) • Perform folder operations (create, name, list, delete, …), • Open and Save a document in the default folder, • Open a file from external storage devices, • Save a document to an external storage device, • Close a document or Exit an application, • Type and modify a document (insert, delete, search and replace, …), • Type and polish a document (Fonts, paragraphing, …), • Print a document, • Chat and Write electronic messages, • Send, Attach, and Open electronic messages.				10 H

A) MODULES FOR FORM TWO

B.1. MODULE 1

B.1.1 TITLE OF MODULE: ORGANIZING, SELECTING, AND USING COMPUTER RESOURCES

Duration: 25 H

B.1.2 PRESENTATION OF MODULE 1
This third module is a logical sequence of the first two modules with the common goal of propelling the learner to discover the computing environment. As such, by the end of this module the learner should be able to:
- Put together basic steps for the modification of a computer system,
- Discover basic notions of data manipulation and management,
- Identify hobbyist software (word processing, logo writer, Alice, …) for learning,
- Practice written communication and create data from a computer environment,

In this perspective, module 1 is meant to get the learner to prepare documents and produce information with the help of a computer system.

B.1.3 CONTRIBUTION OF MODULE 1 TO ACHIEVEMENT AND OTHER CURRICULAR GOALS
The implementation of the competencies acquired in the first two modules is indicated here by the possibility to modify a computer system on the one hand, to manage data on storage devices on the other hand and, finally to practice written communication using a computer. Moreover, a good understanding of these communication and management skills would permit the learner to exercise its societal roles in the following life domains:
- Economy life,
- Social and Family life,
- Media and communication.

B.1.4 CONTRIBUTION OF MODULE 1 IN THE AREA OF LEARNING
The module is meant to get the learner to use a computer to process data and organize information. These skills would benefit the learner in the learning areas (reading, interpretation, and preparing documents) related to other disciplines in the science and technology learning domain.

B.1.5 CONTRIBUTION OF MODULE 1 TO THE TEACHING SYLLABUS AND OTHER DOMAINS OF LIFE

The third module titled processing data and producing information with the use of a computer compels the learner to practice with the computer and ameliorate comprehension of the notions acquired in the previous two modules.

This module enables the learner to practice hands on with a computer and by so doing give the learner the opportunity to exercise basic commands found in a given system software, and to prepare documents and produce information using word processing and spreadsheet packages.

In this regard; the module would smoothly get the learner not only to become self-confident with a given system software, but also to identify and make use of word processing, spreadsheet packages, and hobbyist applications to prepare documents and produce information.

B.1.6. TABLE OF MAIN COMPONENTS OF MODULE 1

CONTEXTUALISATION		COMPETENCIES TO BE ATTAINED		RESOURCES			
Family of life situations	**Examples of life situations**	**Categories of actions**	**Examples of actions**	**Basic knowledge**	**Attitudes**	**Other resources**	**Duration**
Organizing and selecting resources	• Working with a given system software • Installation of simple applications • Managing data from a storage device • Making use of a suitable hobbyist software	Management of users profiles	• Open/Exit a user session with or without a password. • Describe the major parts of a given operating system • Organize information on your computer desktop • Modify a user name • Modify / set a password • Close /Change user session • Modify desktop settings • Perform multi-tasking	**Notions of configuration:** • BIOS • peripherals • Software un/installation • Notions of work session and passwords **Issues with Maintenance:** Software, antivirus, scanner, webcam …) **Basic notions with word processing and spreadsheet:** • General Characteristics of text processing applications • Different types of documents **Notions for organizing documents** • Files • Folders	• Determination • Team spirit • Collaborative work	• Teacher • Computer Laboratory • Productivity suits • Collection of basic computer components • Computer manual • Specialized collections • Digital resources	4 H
		Making use of an operating system	• Identify characteristics of hardware and software in a computer system, • Describe the start-to-stop process for a given system software, • Install and update simple application packages (antivirus, games, …) • Scan through a disk in a computer • Move files and folders				6 H
		Working with files	• Put together files and folders • Organize files and folders • Identify characteristics of files and folders • Perform simple file or character search				4 H

CONTEXTUALISATION		COMPETENCIES TO BE ATTAINED		RESOURCES			
Family of life situations	**Examples of life situations**	**Categories of actions**	**Examples of actions**	**Basic knowledge**	**Attitudes**	**Other resources**	**Durati on**
Producing information using computer	• Preparing a list using a given word processing package • Preparing a cultural activity • Producing personal and official type communications • Preparing short messages • Preparing summary reports of expenses using a given spreadsheet • Outlining steps as solutions to problems	Producing a document	• Enumerate text processing software • State properties of a text processing software • Describe the window of a given text processing software • Enumerate the major parts of a document in a text processing software • Type a text • Modify a font (style, colour, attribute, …) • Polish a paragraph (Alignment, interline spacing, indentation, …) • Save to a given folder • Save systematically every modifications • Move parts of a document with the help of a mouse • Use a mouse to highlight and select parts of a document • Perform copy, cut, paste functions • Move parts of a document with just the keyboard • Employ spell and grammar checker in a document • Modify a view by manipulating zoom function	**Basic tips for using a given software application** • Select an application software • Start an application suit • Close/Exit an application software **General notions of text processing packages** • Characteristics of a text processing software • Types of text documents	• Determinatio n • Team spirit • Collaborative work	• Teacher • Computer Laboratory • Productivity packages • Collection of parts of a computer • Computer manual • Specialized collections • Digital resources	8 H
		Initiation to algorithmic thinking	• Write solution to problems as a procedure • Arranging procedures as a solution set				2 H
		Printing a document	• Manipulate print preview • Select a printer • Define a printing range/area • Indicate the number of pages • Print a document				1 H

B.2. <u>MODULE</u> 2

B.2.1 <u>TITLE OF THE MODULE:</u> SEARCHING AND COMMUNICATING USING THE INTERNET

    <u>Duration</u>: 25 H

B.2.2 <u>PRESENTATION OF MODULE 2</u>
    This module is meant essentially to enable the learner develop basic competences needed to explore the Internet and the World Wide Web; to search for information through specialized web sites and to communicate using electronic mailing system. To achieve these goals, the learner becomes familiar with the Internet and working with specific tools such as an Internet browser (navigator), a search engine, and electronic addresses.

B.2.3 <u>CONTRIBUTION OF THE MODULE TO ACHIEVEMENT AND OTHER CURRICULAR GOALS</u>
    Module 2 would permit the learner to discover the Internet and its major services, the access procedures and tools that someone is able to find. Using some of these tools would encourage the learner to be able to search information on the Internet, send and receive electronic mails.

B.2.4 <u>CONTRIBUTION OF MODULE 2 IN LEARNING AREAS</u>
    The module would enable the learner to develop competencies needed to facilitate and enhance research in the Sciences and technology learning domain as well as in the other domains.

B.2.5 <u>CONTRIBUTION OF MODULE 2 TO THE TEACHING SYLLABUS AND OTHER DOMAINS OF LIFE</u>
    This module has as goal to develop in the learner competencies that would permit in a given life situation, the ability to search for information and to communicate such information through the Internet or computer networks.
    Consequently, the learner should be able to:
- Discover the Internet,
- Use an Internet browser or navigator,
- Use an Internet search engine,
- Communicate through electronic mail or messaging system.

This module practically falls within the curricular goals in the life domain of Media and Communication. However, the transversal nature of the Computer Science syllabus would enable the learner to contribute to other life domains in the curriculum.

B.2.6 TABLE OF MAIN COMPONENTS OF MODULE 2

CONTEXTUALISATION		COMPETENCIES TO BE ATTAINED		RESOURCES			
Family of life situations	Examples of life situations	Categories of actions	Examples of actions	Basic knowledge	Attitudes	Other resources	Duration
Searching and communicating information through the Internet	•Navigating the Internet •Navigating computer networks •Simple search, e.g. a job, a car, … •Changes in lifestyle, schooling or professional •Traveling arrangements (train, plane) •New lifestyle •Comprehension of social issues •Exploration of a country and its culture, language, history, and geography •Learning with use of a technology •Upgrading skills •Interpreting societal issues •Receiving assistance on homework •Communication by means of e-mail •Making communication in academic, professional or official arena •Dispatching cultural and artistic information •Exercise rights and responsibility •Participation in social and cultural life •Need of help and assistance	•Discovering the Internet	•What is Internet? •State services available by virtue of the Internet •Enumerate local Internet Service Providers •Enumerate modes of access to the Internet	**Notions of Internet** • Definition • Material support • URL • Search engines • Navigators or browser • Face book **Web Terminologies** • Notions of WWW • Navigator • Web Page • Hypertext • Links • Blog	•Determination •Team spirit •Collaborative work •Honesty and diligence	•Teacher •Computer Laboratory •Productivity suits •Collection of parts of a computer and computer systems •Computer manual •Specialized resources •Digitalized resources	6 H
		•Using an Internet navigator or browser	•Identify an Internet navigator •Enumerate browsers •Start a browser •Describe the window of an opened browser •Explore use of hypertext links •Explore resources by typing its URL				6 H
		•Using a search engine	•Explore use of search engines •Enumerate examples of search engines •Perform simple searches •Describe a result page from a search •Download documents and applications				6 H

CONTEXTUALISATION			COMPETENCIES TO BE ATTAINED		RESOURCES			
Family of life situations	Examples of life situations	Categories of actions	Examples of actions	Basic knowledge	Attitudes	Other resources	Duration
Searching and communicating information through the Internet	• Search and report issues of immediate environment • Express creativity • Designing personal or collective projects	• Using electronic mail or messaging system	• Create an e-mail address • Open a session of an electronic mailing package • Enumerate the steps taken to send an e-mail • Open/Type/send an e-mail message • Register in a list-serve or a virtual community • Work with Facebook and other virtual community • Add/Delete a receiver in your contact list • Create a contact group • Delete a message • Block or Blacklist a sender • Close a messaging session • Send a message with attachments • Open an attachment in a message	**Electronic mailing** • Basic principle • E-mail Address • Forum • White paper	• Determination • Team spirit • Collaborative work Honesty and diligence	Digitalized resources	7 H

Article 2: The syllabus presented in article one here above shall be implemented as from the beginning of the 2014-2015 school year;

Article 3: All previous provisions repugnant hereto are hereby repealed;

Article 4: Inspectors Coordinator General, the Director of General Secondary Education, the Director of Examinations and Certification, Regional Delegates of Secondary Education, Divisional Delegates of Secondary Education, Education Secretaries of various Private Educations Agencies, Principals of public and private schools, each in their own sphere shall be charged with the strict implementation of this order which shall be inserted and published in the Official Gazette in English and French.

Yaoundé, **1 3 AUG 2014**

THE MINISTER OF SECONDARY EDUCATION

Louis Bapes Bapes

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