**REPUBLIC OF RWANDA** 





# COMPETENCE-BASED CURRICULUM



## SUMMARY OF CURRICULUM FRAMEWORK PRE-PRIMARY TO UPPER SECONDARY 2015

#### ISBN:

#### © COPYRIGHT REB/MINEDUC

#### All rights reserved.

All parts of this publication are protected by copyright. Any utilisation of this publication in terms of reproductions, translations, microfilming and processing in electronic form outside the strict limits of the copyright law without the express permission of permission of Ministry of Education, Republic of Rwanda is forbidden and liable to prosecution. All photo credits: MINEDUC/REB except Page 4, 5 and 6: ©UNICEF Rwanda/2015/Randazzo

*Designed & Printed By:* WordCore Communications Limited **REPUBLIC OF RWANDA** 





# COMPETENCE-BASED CURRICULUM



## SUMMARY OF CURRICULUM FRAMEWORK PRE-PRIMARY TO UPPER SECONDARY 2015

## TABLE OF CONTENTS

FOREWORD	
INTRODUCTION	1
STRUCTURE OF BASIC EDUCATION IN RWANDA	2
VISION, AIMS AND VALUES OF THE CURRICULUM	3
PRINCIPLES OF THE CURRICULUM FRAMEWORK	4
COMPETENCES IN THE CURRICULUM	7
ASSESSMENT	12
LEARNER PROFILE: THE KIND OF LEARNER ENVISIONED	14
SUBJECT SYLLABI	16
IMPLEMENTING THE CURRICULUM	23
GLOSSARY	26

## FOREWORD



The Ministry of Education of Rwanda is honoured to present to all beneficiaries the new Curriculum Framework; which serves as the official guide to competence-based teaching and learning. It is designed to ensure that there is consistency and coherence in the delivery of the curriculum across all levels of general education in Rwandan schools.

The Rwandan education philosophy is to ensure that young people at every level of education achieve their full potential in terms of relevant knowledge, skills and appropriate attitudes that prepare them to integrate in society and exploit employment opportunities.

In line with efforts to improve the quality of education, the government of Rwanda emphasises the importance of aligning the curriculum, teaching and learning and assessment approaches in order to ensure the development of the kind of citizens the country needs and desires. What children are taught, how well they are taught and the competences they acquire are influenced by many factors, among them the relevance of the curriculum, the necessary and sufficient pedagogical approach adopted by teachers, the assessment strategies and the necessary and sufficient instructional materials. These are all being aligned with the new curriculum.

The ambition to develop a knowledgebased society and the growth of regional and global competition in the jobs market has necessitated the shift to a competencebased curriculum to address the issue of the shortage of appropriate skills in the Rwandan education system.

Learners will now get the opportunity to apply what they have learned to real life situations and to make a difference in their own lives with the help of the teacher whose role is central to the success of the curriculum delivery.

I wish to extend my sincere appreciation to the people who contributed towards the development of this document, particularly the Rwanda Education Board, its staff and consultants who organized the whole process from its inception and contributed their technical and professional expertise to its elaboration.

Special appreciation goes to the development partners who supported the process throughout.

Prof Silas Lwakabamba Minister of Education



National Curriculum Consultative conference

## INTRODUCTION

Rwanda is striving to build a knowledgebased economy, with particular emphasis on science and technology as an engine of development. One of the national priorities in the education system in Rwanda is to ensure that education quality continues to improve through closer integration of curriculum development, quality assurance and assessment, improved supply of learning materials, particularly text books, and improved teaching and learning strategies.

The Curriculum Framework is the nation's guiding curriculum document, indicating how the curriculum vision is translated into practice at the school level and reflected in learning experiences, in assessment and in monitoring development and evaluation. It is in line with Vision 2020, Economic Poverty Reduction Strategy 2 and Education Sector Strategic Plan, emphasising the need for the curriculum to be competence-based to promote a knowledge and skills based economy.

The Curriculum Framework was developed through a consultative process with stakeholders ranging from learners, teachers, parents, private sector organisations, local administration and policy makers. Key messages of the framework include: the need to focus on skills and attitudes as well as knowledge, the need to balance academic goals with obtaining skills for the world of work, and the need to build competences into all aspects including teacher development, learning and teaching materials, assessment, examinations and inspection.

Rwanda's new competence-based curriculum matches global trends and is in line with the 2013 Harmonised Curriculum Framework for the East African Community, in which partner states agreed to put in place a curriculum framework with 'a set of policies, regulations and guidelines central to curriculum development and implementation within the East African Community.'

This summary document will serve as a point of reference for all decision-making relating to the curriculum and guide the work of curriculum developers, school principals, teachers, textbook developers, school inspectors, examiners and teacher trainers. It includes information about the principles and competences in the new curriculum, subject syllabuses and rationale, learner profiles, assessments and the implementation of the curriculum.



Curriculum developers in a session

## STRUCTURE OF BASIC EDUCATION IN RWANDA

Pre-primary	Pre-primary is organised in nursery schools for a period of three years for children between the age of 3 and 6 as the preparatory phase for entrance to primary schooling. Initially pre-primary was not obligatory and was in the hands of parents and the private sector. The new curriculum provides more weight to pre-primary.
Primary	Primary education in Rwanda is free and compulsory and lasts 6 years. The official school enrolment age at this level is from 6 or 7 years to 11 or 12 years. All children sit for national examinations at the end of primary 6 for selection into secondary education. The dramatic increase in enrolment has required a double shift system to be implemented in primary schools across the country.
Secondary	Secondary education in Rwanda lasts 6 years, composed of 3 years of lower secondary or ordinary level (O- Level) and 3 years of upper secondary or advanced level (A-Level). The official school age for this level is from 13 years to 18 years although there are some children who start school early and join upper secondary at the age of 12.

### Language of learning

The language of learning in pre-primary and lower primary is Kinyarwanda and other languages are taught as subjects. The language of learning from upper primary to upper secondary is English. Kinyarwanda, French and Kiswahili are taught as language subjects.

## VISION, AIMS AND VALUES OF THE CURRICULUM

## VISION

The vision of Rwanda is to establish an inspiring 21st century curriculum, optimising the potential of all learners and enabling every young Rwandan to make a valuable contribution to the sustained growth of the nation.

### AIMS

#### Aims and Objectives

To ensure the Curriculum:

- Is engaging, dynamic and aligned to the future employment needs of the nation and the global economy;
- Challenges all young people to optimise their achievement;
- Promotes standards comparable with the highest internationally in terms of competences, knowledge and skills.

#### **Student Aims and Objectives**

#### To develop students as:

- Patriotic and responsible citizens, ready to play a full part in society;
- Confident and self-reliant people, ready to take their place in the labour market;
- Successful life-long learners, ready to adapt to new situations, and be agents of change;
- Creative and innovative individuals who are curious, adaptive and productive.

## VALUES

The Rwandan curriculum reflects the Basic Values of the nation. These Basic Values permeate the curriculum and all the processes of schooling. The Curriculum Values are those that underpin the curriculum itself and which determine the nature of the subject syllabuses.

#### **Basic Values (National)**

- Dignity and integrity
- Self-reliance
- National and cultural identity
- Peace and tolerance
- Justice
- Respect for others and for human rights
- Solidarity and democracy
- Patriotism
- Hard work, commitment and resilience

#### **Curriculum Values**

- Excellence, aspiration and optimism
- Equity and inclusiveness
- Learner-centredness
- Openness and transparency
- The importance of family
- Rwandan culture and heritage

## PRINCIPLES OF THE CURRICULUM FRAMEWORK

The Curriculum Framework principles guide the way the curriculum is constructed but they go beyond this and have an impact on teaching and learning, on the way progress is assessed, on the way teachers are trained and on the way schools are led and managed. The principles are described below:

#### Learner centred

The curriculum must address learners' individual needs, interests, abilities and backgrounds, creating an environment where learning activities are organized in a way that encourages learners to construct the knowledge either individually or in groups in an active way.

#### **Competence-based approach**

This is an approach where teaching and learning is based on discrete skills rather than dwelling on only knowledge or the cognitive domain of learning.

### Inclusive, Flexible, Transparent and Accountable

Learning is organised so that every individual is valued and all learners thrive, including girls, learners with disabilities. Learners with special educational needs regardless of background. Catering for learners' individual needs and talents helps facilitate horizontal and vertical mobility within and across different education systems. Schools, learners and communities must communicate openly and honestly about the curriculum and learning in the school to ensure successful teaching and learning.

### Integrated with ICT as a Tool

The curriculum must enable educators and students to use ICT as a tool to improve the quality of education in all subjects at all levels in teaching and learning practices.



Pre-primary children

ICT must support the emergence of teaching and pedagogical student-centred approaches as well as encourage research, communication and collaborative learning.

#### Interconnected with Cross-Cutting Issues

The curriculum reflects the significance of connections between different subject areas, integrating them across years and cycles. Cross-cutting issues are integrated across learning areas appropriately. They are all important for students to learn about, but they are not confined to one subject. The cross-cutting issues, which have been integrated in the curriculum are described below:

#### Comprehensive Sexuality Education

The primary goal of a school based Comprehensive Sexuality Education curriculum is to equip children, adolescents, and young people with knowledge, skills and values in an age appropriate and culturally gender sensitive manner so as to enable them to make responsible choices about their sexual and social relationships, explain and clarify feelings, values and attitudes, and promote and sustain risk reducing behaviour.

#### Environment and sustainability

Integration of Environment, Climate Change and Sustainability in the curriculum focuses on and advocates for the need to balance economic growth, society well-being and ecological systems. Learners need basic knowledge from the natural sciences, social sciences, and humanities to understand to interpret principles of sustainability.

#### Financial Education

The integration of Financial Education into the curriculum is aimed at a comprehensive Financial Education programme as a precondition for achieving financial inclusion targets and improving the financial capability of Rwandans so that they can make appropriate financial decisions that best fit the circumstances of one's life.

#### Gender

Gender will be understood in schools beginning with family complementarities, gender roles and responsibilities, the need for gender equality and equity, gender stereotypes, gender sensitivity, gender mainstreaming, gender-blind/gender-unaware.

#### **Genocide Studies**

Rwandan children should know about the genocide perpetrated against the Tutsi alongside the Holocaust and other genocides. They should know what caused the genocide in Rwanda, its planning and execution, how it was stopped and what the consequences have been. Rwandan children should take part in fighting genocide ideology and genocide denial. Rwandan students will remember the genocide, which is a means to protect the memory of those that were lost.

#### Peace and Values Education

Peace and Values Education (PVE) is defined as education that promotes social cohesion, positive values, including pluralism and personal responsibility, empathy, critical thinking and action in order to build a more peaceful society.

#### Standardisation Culture

Standardisation Culture in Rwanda will be promoted through formal education and plays a vital role in terms of health improvement, economic growth, industrialization, trade and general welfare of the people through the

> effective implementation of Standardization, Quality Assurance, Metrology and Testing.

#### Inclusive Education

Inclusion is based on the right of all learners to a quality and equitable education that meets their basic learning needs, and understands the diversity of backgrounds and abilities as a learning opportunity.

Pre-primary children reading





Reading session

### Subjects and Cross-cutting Issues

The table below shows in which subjects crosscutting issues have been integrated.

Cross-Cutting Issue	Subjects
Comprehensive Sexuality Education	SET, Social Studies, History and Citizenship, Biology, General Studies, English, French, Kinyarwanda, Kiswahili, RE, ICT, Music, PE.
Environment and Sustainability	SET, Social Studies, Geography, Biology, General Studies, Agriculture, Home Science, English, French, Kinyarwanda, Kiswahili, Entrepreneurship, Art and Craft, Economics, ICT, Music, PE, Physics, Chemistry.
Financial Education	Mathematics, Economics, Entrepreneurship, General Studies, Social studies, ICT, Pre- primary.
Genocide Studies	Social Studies, History and Citizenship, General Studies, RE, ICT, Music.
Gender	Social Studies, History and Citizenship, General Studies, English, French, Kinyarwanda, Kiswahili, Entrepreneurship, Economics, Literature in English, ICT, Music, PE, Physics.
Inclusive Education	All subjects
Peace and Values Education	All subjects
Standardisation Culture	All subjects

## COMPETENCES IN THE CURRICULUM

A competence-based curriculum takes learning to higher levels by providing challenging and engaging learning experiences which require deep thinking rather than just memorisation. Its focus is on what young people can do rather than just on what they know.

There are two categories of competences in a competence-based curriculum: Basic Competences and Generic Competences. These two components are built into the subject syllabuses.

### **BASIC COMPETENCES**

Basic competences are key competences based on expectations and aspirations reflected in the national policy documents. It is on the basis of descriptors of these competences that the learners' profiles in each level of education, subjects to be taught and learning areas, broad subject competences and key competences are built.

Basic competences are listed below:	
<ul> <li>Literacy;</li> <li>Numeracy;</li> <li>ICT;</li> <li>Citizenship and National identity;</li> </ul>	<ul> <li>Entrepreneurship and Business Development;</li> <li>Science and Technology;</li> <li>Communication in the official languages.</li> </ul>

The competences above have all been identified as having particular relevance to Rwanda, its history and context.

Literacy and numeracy are basic to accessing learning in other subjects.

Competence in ICT can be developed through the use of ICT across the subjects.

One of the nation's great strengths is its unity in terms of both its population and its sense of purpose. The focus on citizenship and national identity is important in this respect.

There is a key driver to ensure that Rwandans actively create employment opportunities rather than having a mindset of relying on others. Hence entrepreneurship and business development is regarded as basic.

The impact of science and technology increasingly affects all aspects of life and therefore should be considered a basic aspect of subjects across the curriculum.

In our rapidly changing world there is always new learning required to avoid being left behind. Lifelong learning competences are necessary and must be developed by all subjects.



English language panelists

## **GENERIC COMPETENCES**

Generic competences promote the development of the higher order thinking skills. They boost subject learning as well as being highly valuable in themselves. They are seen as generic competences because they apply across the curriculum, and can be developed in all the subjects studied.

#### Generic Competences that will be developed within all subjects are listed below;

- Critical thinking
- Creativity and innovation
- Research and problem solving
- Communication
- Co-operation, interpersonal relations and life skills
- Life long learning

These generic competences help students deepen their understanding of subjects and apply their subject learning in a range of situations. They therefore contribute to the development of subject competence.

As students develop these generic competences they also acquire the set of skills that employers look for in their employees, so the competences help prepare students for the world of work.

The generic competences are also vital for enabling students to become life-long learners who can adapt to our fast-changing world and the uncertain future.



Kiswahili panelists

## **COMPETENCE DESCRIPTORS**

Each of the competences mentioned above is a national priority and is described in the table below to provide insight into what broad learning outcomes are expected for each of the competences.

Competences	Competence Descriptors: What Learners Are Able To Demonstrate During The Learning Process
Literacy	<ul> <li>Read a variety of texts accurately and fast.</li> <li>Express ideas, messages and events through writing legible texts in good hand-writing with correctly spelt words.</li> <li>Communicate ideas effectively through speaking using correct phonetics of words.</li> <li>Listen carefully for understanding and seeking clarification when necessary.</li> </ul>
Numeracy	<ul> <li>Compute accurately using the four mathematical operations.</li> <li>Manipulate numbers, mathematical symbols, quantities, shapes and figures to accomplish a task involving calculations, measurements and estimations.</li> <li>Use numerical patterns and relations to solve problems related to everyday activities like commercial context and financial management.</li> <li>Interpret basic statistical data using tables, diagrams, charts and graphs.</li> </ul>
ICT and Digital competences	<ul> <li>Locate, extract, record and interpret information from various sources.</li> <li>Assess, retrieve and exchange information via internet or cell phones.</li> <li>Use cell phones and internet for leisure and for money transactions.</li> <li>Use computer keyboard and mouse to write and store information.</li> <li>Use information and communication technologies to enhance learning.</li> </ul>

Citizenship and National Identity	<ul> <li>Relate the impact of historical events on past and present national and cultural identity.</li> <li>Understand the historical and cultural roots of Rwandan society and how the local superstructure functions in relation to the global environment.</li> <li>Demonstrate respect for cultural identities and express the role of the national language in social and cultural context.</li> <li>Advocate for the historical, cultural and geographical heritage of the nation within the global dimensions.</li> <li>Show national consciousness, a strong sense of belonging and patriotic spirit.</li> <li>Advocate for a harmonious and cohesive society and working with people from diverse cultural backgrounds.</li> </ul>
Entrepreneurship and Business development	<ul> <li>Apply entrepreneurial attitudes and approaches to challenges and opportunities in school and in life.</li> <li>Understand obligations of parties involved in employment.</li> <li>Plan and manage micro projects and small and medium enterprises.</li> <li>Creation of employment and keeping proper books of accounts.</li> <li>Take risks in business ventures and in other initiatives.</li> <li>Evaluate resources needed for a business.</li> </ul>
Science and Technology	<ul> <li>Apply science and technology skills to solve practical problems encountered in everyday life including efficient and effective performance of a given task.</li> <li>Develop a sense of curiosity, inquisitiveness and research to explain theories, hypotheses and natural phenomena.</li> <li>Reason deductively and inductively in a logical manner.</li> <li>Use and experiment with a range of objects and tools of science and technology and draw appropriate conclusions.</li> </ul>
Lifelong learning	<ul> <li>Take initiative to update knowledge and skills with minimum external support.</li> <li>Cope with the evolution of knowledge and technology advances for personal fulfillment.</li> <li>Seek out acquaintances more knowledgeable in areas that need personal improvement and development.</li> <li>Exploit all opportunities available to improve on knowledge and skills.</li> </ul>
Critical thinking	<ul> <li>Think reflectively, broadly and logically about challenges encountered in all situations.</li> <li>Weigh up evidence and make appropriate decisions based on experience and relevant learning.</li> <li>Think imaginatively and evaluate ideas in a meaningful way before arriving at a conclusion.</li> <li>Explore and evaluate alternative explanations to those presented by others.</li> </ul>



Physics panelists

Creativity and Innovation	<ul> <li>Respond creatively to the variety of challenges encountered in life.</li> <li>Use imagination beyond knowledge provided to generate new ideas to enrich learning.</li> <li>Take initiative to explore challenges and ideas in order to construct new concepts.</li> <li>Generate original ideas and apply them in learning situations.</li> <li>Demonstrate resilience when faced with learning challenges.</li> </ul>
Research and Problem Solving	<ul> <li>Be resourceful in finding answers to questions and solutions to problems.</li> <li>Produce new knowledge based on research of existing information and concepts and sound judgment in developing viable solutions.</li> <li>Explain phenomena based on findings from information gathered or provided.</li> </ul>
Communication	<ul> <li>Communicate and convey confidently and effectively information and ideas through speaking and writing and other forms of communication.</li> <li>Use correct language structure and relevant vocabulary effectively in a range of social and cultural contexts.</li> <li>Comprehend language through listening and reading.</li> <li>Use oral and written language to discuss, argue and debate a variety of themes in a logical and appealing manner.</li> <li>Communicate clearly and confidently using a range of linguistic, symbolic, representational and physical expression.</li> <li>Develop and communicate formal messages and speech appropriate to the target recipient or audience.</li> </ul>



Pre-primary panelists

## ASSESSMENT

### PURPOSES OF ASSESSMENT

The key purposes of assessment have not changed with the new curriculum. These include: monitoring progress and providing feedback, selection, guidance on future courses, certification and promotion. However, it is important that assessment focuses not only on knowledge but also on competences and all the elements of competences.

Competence-based assessment is an assessment process in which the learner is confronted with a relevant learning challenge and asked to put into practice what has been learned in order to resolve or overcome this situation.

One of the major purposes of assessment is to assess the extent to which learning objectives including competences have been achieved and to identify which schools and learners need pedagogical advice and strategic intervention.

Assessment is organized at the following levels: School based assessment, National assessment (such as Learning Assessment in Rwandan Schools), District examinations and National examinations.

## **TYPES OF ASSESSMENT**

#### Continuous asssesment

The assessment should also cover assessment of Learning (Summative assessment). This is daily monitoring of learners progress and collecting information on learners' ability to demonstrate the required competences in

carrying out tasks.

What should be assessed in Schools?

a) Knowledge and understanding: Does the child demonstrate an understanding of the subject? Has the child mastered the subject concepts?

Indicators: correctness of answers, coherence of ideas, logical reasoning.

- b) Practical skills: How does the child perform on aptitude and practical tests?
   Indicators: accuracy, using appropriate methods, quality product, speed and efficiency, coherence.
- c) Attitude and values: How does the child respond to a task or a situation? What is the child's behaviour?

**Indicators:** approach to a situation, appreciation of the task given, impression of a situation, manipulation, reasoning, persistence, tolerance.

d) Generic competences: What are the steps taken to perform a given task? What is the reasoning behind it? How does the child overcome each challenge?

Indicators: reasoning, manipulating, presenting, value judgment, applying knowledge

#### Summative assessment

Summative assessments are used to evaluate student learning, skill acquisition, and academic achievement at the conclusion of a defined instructional period-typically at the end of a project, unit, course, semester, program, or school year. Information from summative assessments can be used formatively when students or faculty use it to guide their efforts and activities in subsequent courses.

#### **District examinations**

Districts will be supported to organize a common end of year examination per class for all the schools to evaluate the performance and the achievement level of the learners in individual schools.

#### LARS

LARS stands for Learning Achievement in Rwandan Schools. It consists of assessing the learners' skills at a given grade or age (P2 and P5 in selected schools) at least after every two years. This will help to evaluate and improve the quality of education and the policy of education system-in line with EFA goals, MDGs, Vision 2020, EDPRS 2008-12, and the Mission Statement of MINEDUC.

#### National Examinations

The system and process in setting national examinations should be to encompass competency based assessment and to increase rigour in the robustness of outcomes.

### **RECORD KEEPING**

This is gathering evidence from classroom observation and assessment instruments and using them to judge the student's performance against the set criteria or standards.

#### What to record and when to record?

Frequency of a particular behaviour or a particular competence may be recorded for the duration of a lesson, or for a set time period within a lesson or within the learning unit. At times the teacher may need to record the student's exact response in order to analyze these responses to redirect future instruction. At times anecdotal comments which refer to written notes describing events or incidents that occur about the student's behavior might be helpful.

#### Reporting to parents

The most helpful reporting is to share with parents what students are doing well and where they need to improve.



Students in a chemistry class

## LEARNER PROFILE THE KIND OF LEARNER ENVISIONED

The Learner Profiles describe the nation's aspirations for the kind of learner it wants and needs at each stage of education so that, on completion of their schooling, each young adult has the characteristics to become a citizen who will integrate positively into society.

#### **PRE-PRIMARY LEARNER PROFILE**

By the end of pre-primary, children should be able to:

- Explore and discover their surroundings and show awareness and respect for the environment;
- Demonstrate basic mathematical skills through different educational games and songs;
- Demonstrate sensory ability, physical coordination, fine and gross motor skills;
- Demonstrate self care skills and good health habits;
- Participate in and enjoy expressing themselves through a variety of creative arts.
- Demonstrate social skills, interact peacefully with others and work in a team
- Express themselves in Kinyarwanda through speaking using a vocabulary appropriate to their level.

#### **PRIMARY LEARNER PROFILE**

By the end of primary, learners should be able to:

- Express themselves in English, French and Kinyarwanda through speaking and writing, using correct vocabulary and grammar appropriate to their level and relevant to their every day interactions;
- Read confidently and comprehend a variety of simple literary and non-literary texts;
- Apply basic mathematical concepts, principles and processes to real life experience;
- Understand basic scientific phenomena of living and non-living things in their immediate environment;
- Demonstrate the knowledge and skills required to progress to the next stage of their education.

#### LOWER SECONDARY LEARNER PROFILE

By the end of lower secondary, learners should be able to:

- Express themselves fluently, and with confidence, in speaking and writing, use correct vocabulary and grammar appropriate to their level and relevant to their every day interactions;
- Listen attentively and read fluently both for information and for pleasure;
- Apply basic mathematical concepts, principles and processes to solve problems;
- Analyse and explain scientific phenomena relating to real life experience;
- Use and experiment with a range of scientific and technological tools and equipment and draw appropriate conclusions;
- Advocate for personal, family and community health, hygiene and nutrition;
- Express themselves creatively and show appreciation of the arts;
- Demonstrate the knowledge and skills required to progress to the next stage of their education (general, vocational or technical).

#### **UPPER SECONDARY LEARNER PROFILES**

In upper secondary, the crucial final stage of school level education, learners complete their preparation for higher education or for employment. Hence the following are headed 'Leaver's Profiles.' While they have much in common, there are differences relating to the subject combination.

#### **SCIENCE COMBINATIONS LEAVER'S PROFILE**

Upon completion of upper secondary education in sciences, learners should have acquired knowledge, skills and attitudes to:

- Express themselves fluently, and with confidence, in speaking and writing using correct vocabulary and grammar appropriate to their level and relevant to their every day interactions;
- Analyse and explain scientific phenomena using correct scientific terminologies;
- Apply learning in practical situations;
- Perform experiments using a range of scientific and technological tools and equipment and draw appropriate conclusions;
- Collect, evaluate, interpret and present scientific data in a logical and coherent form;
- Demonstrate the knowledge and skills required to progress to the next stage of their education (university, vocational technical).

#### HUMANITIES COMBINATIONS LEAVER'S PROFILE

Upon completion of upper secondary education in humanities, learners should have acquired knowledge skills and attitude to:

- Express themselves fluently, and with confidence, in speaking and writing using correct vocabulary and grammar appropriate to their level and relevant to their every day interactions;
- Demonstrate more abstract and complex thinking to inquire about the world and themselves including how past and presenthistorical, geographical, sociological and cultural events, processes and systems shape our future;
- Demonstrate an understanding of sustainable growth, conservation, reconstruction and development of the country in the regional and global context;
- Demonstrate the knowledge and skills required to progress to the next stage of their education (university, vocational, technical).

#### LANGUAGES COMBINATIONS LEAVER'S PROFILE

Upon completion of upper level secondary education in languages, learners should have acquired knowledge, skills and attitudes to:

- Express themselves fluently, and with confidence, in speaking and writing using correct vocabulary and grammar appropriate to their level;
- Listen to, read and view, analyse, interpret and summarise a range of literary and nonliterary texts in the target language;
- Demonstrate and practice ethical and moral responsibility including in leadership and management;
- Analyse and evaluate rationally and constructively to resolve problems;
- Demonstrate the knowledge and skills required to progress to the next stage of their education (university, vocational technical).



Social studies panelists

## SUBJECT SYLLABI

The Rwanda competence based curriculum has 24 subject syllabi. Each syllabus has two major components: the introduction and the learning units.

- The introduction is made up of: The rationale or relevance of the subject; Broad subject competences; Pedagogical and assessment aproaches; Specific objectives of the subject and Material resources.
- The Learning unit is made up of: The key Competences ; Cross-cutting issues; Learning outcomes/Learning objectives; Subject content, learning activities and learning materials required

	KEY SYLLABUS WORDS
Knowledge	Know, name, state, identify, draw, label, list, match.
Understanding	Explain, compare, contrast, describe how something works, classify.
Skills	Apply, use, perform, carry out, analyse, construct, investigate, explore, evaluate, create.
Attitudes and Values	Appreciate, care for, empathise, respect, show concern for, value.

This section describes the subject overviews, the subjects to be taught in this curriculum at each level and the subject rationale.

## **1. SUBJECT OVERVIEWS**

The subject overview is an indicative summary of topics, sub-topics and topic competences to be covered in each of the learning units of the subject to be taught on year by year basis. The subject overview is used to develop the learning unit of each syllabus.

The learning unit in each subject has its: Key concepts, Body of knowledge and Approaches (processes and methodologies). These form the basis of the subject syllabus. The syllabus blends the subject elements with the other components to form a coherent and progressive programme of learning. The key building blocks are set out for each of the subjects with the key words that usually signal them in a syllabus.

### 2. SUBJECTS

The subjects to be studied at each stage are set out below:

#### Pre-primary

At the pre-primary stage, there are six learning areas and there is an integrated and thematic approach to these so that the children learn holistically by engaging in practical activities.

Pre-primary	Age	Required learning areas
Grade 1	3- 4 years	Discovery of the World; Numeracy;
Grade 2	4-5 years	Physical and Health Development;
Grade 3	5-6 Years	Creative Arts and Culture; Language and Literacy: (Kinyarwanda and English); Social and Emotional Development

#### Primary

At the primary stage, learners study seven subjects at lower primary and eight at upper primary as shown in table below. All the subjects at this level are compulsory.

Level	Subjects
Lower Primary	Kinyarwanda; English; Mathematics; Social and Religious Studies; Science and Elementary Technologies; Creative Arts: Music; Fine Art and Craft; Physical Education.
Upper Primary	Kinyarwanda; English; Mathematics; Social and Religious Studies; Science and Elementary Technologies; Creative Arts (Music, Fine Art and Craft); Physical Education and French.

#### Lower Secondary (S1 to S3)

Subjects at lower secondary are in three categories as shown in the table below. The core subjects are all compulsory and examinable at national exams, while the subject chosen among the elective subjects is also examinable. Co-curricular activities are all compulsory.

Categories	Subjects
Core Subjects	Kinyarwanda; English; Mathematics; Physics; Chemistry; Biology and Health Sciences; ICT; History and Citizenship; Geography and Environment; Entrepreneurship; French; Kiswahili; and Literature in English.
Elective Subjects	Religion and Ethics; Music, Dance and Drama; Fine arts and Crafts; Home Sciences and Farming (Agriculture and Animal husbandry).
Co-Curricular Activities	Physical Education and Sports; Library and Clubs.

#### Upper Secondary Subject combinations (S4 to S6)

In upper secondary there are three categories of combinations with a total of seventeen different subject combinations as follows;

Category	Combinations
Sciences	1. Mathematics – Physics - Geography (MPG)
	2. Physics – Chemistry - Mathematics (PCM)
	3. Physics – Chemistry - Biology (PCB)
	4. Biology – Chemistry - Geography (BCG)
	5. Mathematics – Economics - Geography (MEG)
	6. Mathematics – Computer Science - Economics (MCE)
	7. Mathematics – Physics - Computer Science (MPC)
	8. Mathematics – Chemistry - Biology (MCB)
Humanities	1.History – Economics - Geography (HEG)
	2. History – Geography - Literature in English (HGL)
	3. History – Economics - Literature in English (HEL)
	4. Literature in English – Economics - Geography (LEG)
	5. Religious Education - History - Literature in English (RHL)
	6. Religious Education - History - Geography (RHG)

Languages	1. Literature in English - French - Kinyarwanda (LFK)
	2. Literature in English - Kiswahili - Kinyarwanda (LKK)
	3. Literature in English - Kiswahili - French (LKF)

Along with the chosen combination of A level subjects, each learner is obliged to take Entrepreneurship plus General studies and Communication Skills as core subjects and one elective as minor from the four languages English, French, Kiswahili and Kinyarwanda. Those taking Languages combinations study have the fourth language as a minor subject.

Subsidiary mathematics will be compulsory for learners who take science subjects or economics and do not take mathematics as a major or principal subject. All co-curricular activities are compulsory for everybody

### .3. SUBJECT RATIONALES

### **Pre-primary Subjects**

The pre-primary curriculum is delivered holistically, rather than as separate subjects and it lays the foundation for all the learning in the National Curriculum. The curriculum should nurture children to attain all round development in the physical and motor; cognitive and language; social and emotional; moral and spiritual domains.

### Primary and Secondary Subjects

#### Social Studies

Social Studies is the study of people in their physical and social environment. It is a key learning area for understanding the development of society and the mechanisms of globalisation. The subject focuses on the development of personal values as a responsible and productive citizen. Social Studies is an integrated subject composed of humanity and life skills subjects. It is taught at primary level.

#### General Studies and Communication

General Studies is multi-disciplinary. It is designed to complement other studies and will provide useful preparation for higher education, work and life. It encourages students to think across subjects, develop their thinking skills, capacity to construct arguments and ability to draw conclusions. An awareness of the wider implications of particular issues will enhance the quality of a student's understanding of global questions and challenges.

#### History and Citizenship

History exposes learners to various cultures and events relating to different eras. It inspires and instils in young people curiosity to know and to analyse past and present events so as to understand and appreciate the physical and social environment in which they grow up. History promotes a culture of peace, tolerance, reconciliation and patriotism among students in order to mould them as good citizens.

#### Geography

Geography is the study of the earth including all the phenomena which make up the physical and human environment. Geography and Environment helps the learners to understand physical and social environment in order to build unity in diversity. Geography teaching also motivates students to find out about the physical world and enables them to recognise the importance of sustainable development for the future of mankind.

#### **Religious Education**

Religious Education deals with the philosophical explanation of spirituality, beliefs about the nature and attributes of God as well as the foundations of different faiths. Religion subject syllabus will contribute to moral and spiritual development of the young people by developing values such as faithfulness, generosity, honesty, goodness, respect. responsibility, self-control, self-esteem and accountability that will help them to make to good decisions and sound judgment about moral and life issues.



**Religious education panelists** 

#### Entrepreneurship

Entrepreneurship stimulates people to think of the role of the business community and to contribute to the development of his/her country by creating and managing small/ micro income generating projects adapted to local realities. It prepares young people for the uncertainties and complexities of the real world where there are business opportunities for individuals and for groups.

#### **Economics**

Economics embodies global and international awareness by exploring how different countries deal with common economic issues such as government intervention, market failure, sustainability and achieving macroeconomic objectives. Economics helps society to decide on the optimal allocation of our limited resources to satisfy our unlimited human wants and provides individuals, communities and governments with guiding principles for growth and development.

#### English

English is a lingua franca used in many countries for a wide range of purposes including trade, commerce, science and technology and in accessing information using information communication technology. Rwanda is a member of the Commonwealth and of the East African Community in which member countries use English as the official language of communication. Rwanda uses English not only as an official language of communication but also as the language of learning in schools.

#### French

French is important in the national and international contexts and one of the official languages of communication of Rwanda. As a member of the community of Francophone nations, Rwanda needs the French language in order to communicate with other member nations. It is also a language for trade and commerce all over the world.

#### Kinyarwanda

Kinyarwanda is the national and an official language spoken and understood by the vast majority of Rwandans. Kinyarwanda is the language of learning of nursery schools and of the first three years of primary schools. Kinyarwanda is the language of basic literacy, which requires to be well mastered by students because it serves also as basis to learn other languages. There is a strong link between Kinyarwanda language and cultural identity, cultural values and heritage.

#### Kiswahili

Kiswahili is a language spoken by many people in Africa, particulary East African Community member states of which Rwanda is one. The Rwandan population needs to communicate with fellow EAC members for different socioeconomic, political and cultural reasons.

#### Literature in English

The study of Literature in English is essential in a society with English as a key language of learning and communication. It is a key vehicle for learning about different cultures. Literature is a source of both pleasure and information through reading of both fiction and non fiction. Literature sharpens and broadens the mind and is important for developing competences such as critical thinking, analysis and creativity.

#### **Mathematics**

Mathematics concepts are applied in the learning of other subjects particularly science and technology subjects and in business. Mathematical competence enhances critical thinking skills and problem solving and enables the learners to be systematic, creative and self confident in using mathematical language and techniques to reason deductively. Mathematics equips learners with knowledge, skills and attitudes necessary to enable them to succeed in an era of rapid technological growth and socio-economic development.

## Science and Elementary Technology (SET)

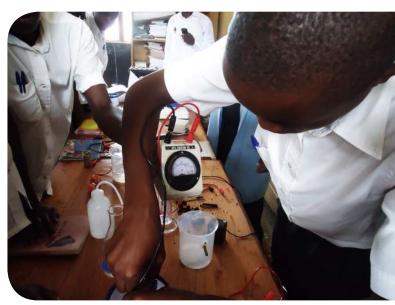
This integrated subject is offered at primary level. The subject provides a very good foundation for the study of science subjects in the post-primary setting. Most importantly, it cultivates a positive attitude to science and gives learners opportunities to experience the excitement of working as a scientist. It provides opportunities for them to use integrated concepts, skills and processes to carry out investigations and to explain phenomena around them.

#### **Biology**

Biology is the study of life and has many applications, both in the natural environment and in health and education. Studying biology develops understanding of living systems and of how to apply learning in direct ways to maintain the health of humans, animals and plants. Biology enables us to understand relationships between living organisms and what is beneficial and what is harmful. Technological advances in new areas, such as DNA and genetics have made this varied discipline more exciting than ever.

#### Chemistry

Chemistry provides skills that guide the construction of theories and laws that help to explain natural phenomenon and manage the environment. It provides answers to many problems faced by our modern society by empowering students to be creative, innovative and to use independent approaches to solve problems. The study of chemistry in secondary prepares a potential future scientist to be able to join and excel in science courses in higher education.



Students in a Chemistry laboratory

#### **Physics**

Physics can be regarded as the most fundamental of the natural sciences. Physics has made significant contributions to advances in new technologies through understanding of scientific phenomena and theories critical to the development of new products that have dramatically transformed modern-day society. These include television, computers, domestic appliances and nuclear weapons. Advances in thermodynamics led to industrialization and advances in mechanics and inspired the development of calculus.



Students in computer laboratory

#### ICT (Information and Communication Technology)

ICT exposes learners to various technological tools including computers. Internet. (radio broadcasting technologies and television), telephony and others to enable them to access, manipulate and provide information. The subject provides basic computing skills and exposes learners to common application software such as word processing, spreadsheets, presentation and geographical information systems to assist the individual in his/her daily life. The internet is the basic foundation through which individuals gain access to the world of communication, research and innovation.

#### **Computer Science**

With the ICT curriculum for Ordinary level, learners gain basic knowledge and skills that enable them to be familiar with the computer as a tool for everyday life. The Computer Science curriculum for Advanced level Science combinations is built on this prerequisite. Computer science is intended to produce graduates prepared for both the labour market and higher education studies. Programming is a central component of computer science which uses a wide range of algorithms in problem solving and creativity.

#### Agriculture

Agriculture as both an applied science and an art is the pillar of our nation's economy, despite the insufficiency of arable land. Hence it is important to resort to modern agricultural techniques in order to reach self-reliance in food production and make farming commercially viable. Increasing the agricultural knowledge, skills and attitudes of the Rwandan population beyond the level of basic education is therefore vital.

#### Home Science

Home Science prepares learners for the most important aspects in their lives, caring for their homes and families as well as providing a firm foundation for their career. Home science is also an activity-oriented subject equally important for both males and females, which enables them to improve the quality of their personal and professional life and to contribute to society.

#### Fine Art and Crafts

Arts and Crafts equips learners with knowledge, skills and attitudes necessary to enable them to develop abilities such as creative thinking, decision-making, problemsolving and vision articulation as well as a wide variety of social skills, including communication, sharing and appreciation, that will help them to succeed in an era of rapid technological growth and socioeconomic development.



**Fine Arts Panelists** 

#### Music, Dance and Drama

Music, dance and drama are performing arts that provide a valuable channel for human expression and experience. Responses to musical experiences span sensory, gross motor, fine motor, cognitive, communicative and social skills. Music, dance and drama teach about life and living, about thoughts and feelings, and about self and others, as well as providing opportunities for students to be creative and to understand, enjoy and appreciate them for life.

#### **Physical Education**

Physical Education develops students' physical competence and confidence, and their ability to use these to perform in a range of activities and take part in sports and games. Participating in physical activities provides opportunities for students to be creative, competitive and to face up to different challenges as individuals, in groups and as part of teams. Students learn how to plan, perform and evaluate actions, ideas and performances to improve their quality and effectiveness.

## IMPLEMENTING THE CURRICULUM

The change to a competence-based curriculum is about transformation, ensuring that learning is deep, enjoyable and habit-forming, leading to high standards and levels of achievement.

#### Teaching and Learning pedagogy

Teachers need to shift from traditional methods of instruction and adopt participatory and interactive methods that engage young people in the learning process, both in groups and as individuals. This ensures that learning is active, participative and engaging rather than passive, and that it is personalised, addressing learners' individual needs and expectations.

This learner-centred approach should involve diverse learning experiences, including but not limited to individual, paired and group work, oral questioning, discussions, debates, role play, presentations, projects, practical work, investigations, problem-solving, assignments, field visits, tests and quizzes.

#### Language of Learning

The national policy of English as the language of learning from P4 onwards is established, and so it is essential that the standard of English of every teacher is brought to the necessary level of proficiency for them to teach effectively. While teachers of English have a major responsibility in this respect, every teacher from the beginning of upper primary must have a high level of expertise in English in addition to expertise in their own particular specialist subject(s).

#### Inclusion

The full curriculum needs to be accessible to every learner, rather than having lower expectations of those with impairments and disabilities. The curriculum should only be adapted for those young people for whom the severity of their learning difficulties makes access to the full curriculum impossible. Those with impairments and disabilities unrelated to their ability to learn should not be denied the opportunities the National Curriculum provides everyone else.

Another important element of inclusion is the underlying messages the curriculum gives through the use of stereotypical images and promotion of attitudes counter to the principles of inclusion and equality. Moreover, teaching and assessment strategies must ensure that no learner is placed at a disadvantage on grounds of gender or special needs.



Students in science laboratory

### **Teaching and Learning Resources**

The learner-centred approach required for the new curriculum demands a variety of teaching and learning textbooks and resources. Teachers' Guides for textbooks and the National Curriculum Syllabuses will provide subject teachers with advice and guidance on effective strategies for teaching their subjects and for optimising students' progress in terms of subject knowledge, skills, attitudes and competences. They also offer valuable advice on assessment for learning, continuous assessment and the assessment of competences.

### **Guidance and Counseling for Students**

One of the aims of the new curriculum is to ensure that young people's skills are better matched to the needs of the Rwandan, regional and global labour market. The competence focus of the curriculum is intended to ensure that students gain these skills. There is also a greater emphasis on developing entrepreneurship so that young people are better prepared for taking the option of becoming self-employed.

Just as the curriculum must be fully inclusive, advice and guidance must ensure that young people of all abilities, including the most gifted and those with learning difficulties and disabilities, are helped to find the most appropriate path.

Within each school a counseling portfolio will be established. Teachers will be trained to do to the following:

- Assist learners in making informed decisions about career pathways and their education;
- Make learners aware of how social factors, behaviour and personal attitudes can affect their level of achievement;
- Encourage learners to maintain portfolios detailing accomplishments related to academic performance;
- Develop learner competence in self-management and in educational, occupational and career planning;
- Devise remedial strategies to address underachievement and support for those with learning difficulties.

### Monitoring and evaluation

The implementation of the new curriculum will be carefully monitored so that any barriers to success can be identified and rapidly addressed. Responsibility for monitoring and evaluation lies at every level of the education system from individual teachers through to the Ministry of Education.

The following principles apply to the monitoring framework for the implementation of the National Curriculum:

- Monitoring indicators are to be collected and reported annually, through existing structures: schools, sector and district quality assurance or inspection units;
- The indicators will focus on learning and teaching methodology, assessment approaches, utilization of instructional materials and the intended impact on the overall learning process;
- The national department in charge of quality assurance or inspection will be responsible for the coordination of monitoring activities and ensuring regular evaluation of the monitoring reports;
- In the initial stages the focus of monitoring and evaluation will be based upon students' and teachers' perceptions of the impact of the curriculum on learning and attitudes to learning. Once the curriculum has been in operation for a full cycle it will be possible to judge the impact of the curriculum by comparing outcomes using hard outcome measures.

# Phasing of Implementation of the Curriculum

The implementation of the curriculum will be such that learners study the complete three year programme in each stage of schooling before they sit the new national examinations aligned to the new curriculum. Thus, implementation will be done as follows:

- In the year 2016, the curriculum will be introduced in Pre-school, P1, P4, S1 and S4.
- In the year 2017, the curriculum will be introduced in P2, P5, S2 and S5.
- In the year 2018, the curriculum will be introduced in P3, P6, and S3 and S6.

This phased introduction has a number of implications. It provides a timeframe so that strategies can be put in place for:

- The teacher training programme
- The phased delivery of the new textbooks
- New national examinations to be prepared
- School inspectors to be trained for their role aligned to the new curriculum
- School leaders to be trained
- Resourcing of schools for teaching a competence-based curriculum



Kinyarwanda Panelists

## GLOSSARY

Curriculum	The learning provided throughout the education system consisting of learning areas, subjects including knowledge and competences, cross-cutting issues, basic and generic competences, skills and attitudes.
Curriculum Framework	A guiding document that governs the development and the implementation of the curriculum, syllabuses and other guidance, including teacher manuals, parent manuals, standards for the preparation of textbooks.
Syllabus	A document describing the learning objectives, learning outcomes, content and learning activities related to a specific subject. It provides guidance on teaching and assessment methodologies.
Cross cutting issues	Important curriculum content that does not belong to any one subject or learning area exclusively but which is best taught and learned in a number of subjects.
Competence- based Curriculum	A curriculum designed to develop learners' competences rather than just their knowledge. This focuses on what learners can do, ensures their learning has greater purpose and is deeper than it would be otherwise.
Competence	Competence is the ability to use an appropriate combination of knowledge, skills, attitudes, values and behaviour to accomplish a particular task successfully.
Generic Competence	Generic competences are the competences which are transferrable and applicable to a range of subjects and situations including employment.
Learning Outcomes	Learning outcomes describe what learners are expected to know, understand and be able to do at the end of each unit.
Learning Objectives	Learning objectives describe what the planner or the teacher intends to deliver and that the learner is expected to learn.