



2023 EDCI 312 CBC Revised Digital Notes WITH CBC Aligned Course Outline

Computer programming (Tharaka University College)



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FACULTY OF EDUCATION HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF EDUCATION

PROGRAMME: BACHEROR OF EDUCATION SCIENCE/ ARTS

COURSE OUTLINE

CREDIT FACTOR:3.0 CONTACT HOURS: 45 HOURS

Unit Code& Title	EDCI 312: Competence Based Curriculum Concepts
Prerequisite	NONE
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Course Purpose

The course provides students with opportunities to update themselves with the Competence Based Curriculum. This will empower the learner to be a reflective practitioner capable of implementing the curriculum as is envisaged.

Course Learning Outcomes

By the end of the course, the learner should be able to:

- i. Demonstrate an understanding of the basis under which curriculum was reformed leading to CBC
- ii. Interpret the curriculum reform vision and mission.
- iii. Explore the national goals of education in Kenya
- iv. Interrogate the basic education curriculum framework pillars: values, theoretical framework and guiding principles.
- v. Classify the core competencies to be achieved for basic education in Kenya
- vi. Appreciate the relevance of including pertinent and contemporary issues in CBC for basic education.
- vii. Discuss the organization of basic education; Early Years education, middle school education, Secondary education and Instruction for learners with special needs.
- viii. Summarize level learning outcomes, essence statement for subject areas for Early Years education, middle school education, Secondary education
- ix. Evaluate the relevance of career pathways inclusion in the reformed curriculum in Kenya
- x. Familiarize with Instruction for learners with special educational needs
- xi. Discuss various types of assessments in Competence Based Curriculum

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- xii.** Examine various guiding principles of Competence Based Assessment in CBC, instruments and performance indicators.
- xiii.** Apply Bloom's Taxonomy knowledge in construction of assessment tools for learners at different levels
- xiv.** Demonstrate an understanding of the Teacher capacities required for effective Competence Based Curriculum delivery.

Course Content

Basis of curriculum reform leading to CBC curriculum; Vision, Mission and Goals of education. Basic Education Curriculum Pillars; Values, Theoretical Approaches and Guiding Principles. Core Competencies and PCIS in CBC curriculum for Basic Education, Subjects; Organization of Basic Education; Early years education – learning outcomes, essence statement and subjects; Middle school education –learning outcomes, essence statement and subjects; Secondary Education; Lower Secondary education- subjects ,essence statement ;senior school –learning outcomes ,subjects and essence statement; Instruction for learners with special educational needs; Pertinent and contemporary issues in CBC curriculum ;Activity planning for CBC instructional process; Assessment; Guiding principles of Competency based Assessment; Assessment instruments for Formative Assessment; Performance indicators; Teacher capability for formative assessment; Competency Assessment for persons with special educational needs Capacity Building framework for CBC; Learning outcomes for capacity building of curriculum Implementers ; Sustainability of Continuous Professional Development.

Course Schedule			
Week	Topic	Specific Learning Outcomes	Learning Experiences Physical/Virtual
1	Basis of curriculum reform leading to CBC	Exemplify reasons for curriculum reforms Compare and contrast the Competence and Content Based Curriculum	Internet search of the legal tools under which CBC is founded In groups, compare and contrast CBC and CBC and make a class presentation
2	Curriculum Vision, Mission and Goals of education.	Appreciate the significance of inclusion of vision and mission of CBC Outline national goals of education and relate their achievement through various learning areas (subjects)	In pairs, make a reflection of the relevance of CBC vision and mission Discuss how national goals of education are linked to class and out of class activities
3	Basic Education Curriculum Pillars; Values and Guiding Principles.	Explore the various guiding principles in CBC Appreciate the significance of Value Based Education	Discuss in groups the various guiding principles in CBC Compare the extent of value emphasis in the current and previous system of education
4	Basic Education Curriculum	Explain the key tenets by various theorists suggested in CBC Evaluate the relevance of	Explore key features of a various theorists suggested in CBC

	Pillars: Theoretical Approaches	inclusion of each theory in CBC Apply educational ideas postulated by different theorists in classroom context	Brainstorm in pairs how each theory relates to CBC Demonstrate practical application of the theories to classroom teaching
5	CAT I Pertinent and Contemporary issues (PCIs) in CBC for basic education.	Appreciate the relevance of inclusion of pertinent and contemporary issues in basic education.	In groups, discuss the six Key PCIs included in CBC and their implications in learner's life
6	Core Competencies for Basic Education	Evaluate the seven core competencies in CBC and their value in the lives of individual learner Elucidate various techniques used for community mobilization Appreciate the significance of each of the core competence as an essential life skill	Critique the relevance of each core competence in the curriculum Examine ways in which the core competencies can be applied in daily lives
7	Organization of Basic Education; Early years education – learning outcomes, essence statement and subjects	Discuss the organization of basic education; Early Years education Outline learning outcomes, essence statement and subjects in Early Years Education as envisaged in CBC	Explain in groups how Early Years Education (EYE) is organised Give an overview of each learning area/Subjects purpose in the EYE
8	Organization of Basic Education: Middle school education – learning outcomes, essence statement and subjects;	Interpret the learning outcomes for the middle school, essence statement for each subject Appreciate the value including various learning area as a foundation for future career pathways	Share in groups the learning outcomes for various subjects
9	Organization of Basic Education: Secondary Education; Lower Secondary education-	Discuss various career pathways and tracks in lower and senior secondary Describe the relevance of various career pathways as a way of mitigating wastage and dropout rates	Discuss in groups career pathways and tracks in lower and senior secondary Make groups presentation on how career pathways will help alleviate the issues of unemployment, school

	subjects, essence statement; senior school –learning outcomes, subjects and essence statement		drop-out and wastage Appreciate the value of having engaged, empowered and ethical citizen and nurturance of talents as required skills of the 21 st century learner
10	Competence Based Assessment (CBA): Guiding principles of Competence Based Assessment in CBC, Assessment instruments and performance indicators.	Critique various merits and demerits of summative and formative assessment Elaborate on the guiding principles engaged while formulating a Competence Based Assessment Explore various assessment tools in CBA Analyse various performance to observe when assessing learners	Debate on dangers of engaging learners on only the summative assessment instead of the balanced approach to assessment Brainstorm in groups guiding principles applied in CBA Formulate an assessment tool in groups and make a class presentation for critics Identify performance indicators for various learning areas
11	Bloom's Taxonomy knowledge in construction of assessment tools for learners at different levels	Demonstrate understanding of the Bloom's Taxonomy knowledge in construction of assessment tools for learners at different levels	Apply the Principles of Bloom's Taxonomical knowledge in construction of assessment tools for learners at different levels
12	CAT II Instruction for learners with special educational needs	Classify learners in different categories who have special educational needs	Justify the need of differentiated curriculum to cater for individual educational needs
13	Teacher	Examine different Teacher	Brainstorming qualities,

	capacities requirement s for effective Competence Based Curriculum delivery.	capacities requirements for effective Competence Based Curriculum deliver	skills and capacities required of teachers for quality delivery of services to learners Video watching on the required teacher competencies, qualities and attitudes of good role models, mentors, facilitators
14 & 15	EXAMINATIO N		

Teaching and Learning Methods

Lecturers, Class presentations Class discussion

Course Assessment

CATS and Assignments 30%, Final examinations 70%, Total marks 100%

References

Craft, A. (2006). Fostering creativity with wisdom. Cambridge Journal of Education, 36 (3), pp.337 – 350.
Devries, B, and Zan, B. (2003). When children make rules. Educational Leadership 61 (1).
Edgazette.govt.nz. (2016). Building strong foundations, clear pathways, successful transitions.
[online] Available at;<http://www.edgazette.govt.nz /Articles/Article .aspx?Article Id=8790>
[Accessed 24 Nov .2016].

Hattie, J. A (2012). Visible Learning for Teachers, Maximizing Impact of Learning
.London.UK.Routledge.

Kim,Y, and Bayior Russel A.L.(2006).Pedagogical Agents as learning Companions ;the role of agent

competency and type of Interaction. Educational Technology Research and Development.54(03).

Mislevy Robert, Russel Almond, Janice Lukas (2003). A brief introduction to Evidence Centred Design. Educational testings Services, Research and Development Division.Princeton.McLeod, (2016).Erik Erikson Psychosocial Stages Simply Psychology. [online] Simplypsychology.org.Available at: <http://www.simplypsychology.org/Erik –Erikson,htm>.
[Accessed 17 Nov.2016].

MOEST (2012). Sessional Paper No 2 of 2015: Reforming the Education and Training Sector in Kenya Government Press; Nairobi.

Pathways to Education. (2016). Program Results. [Online] available at:
://www.pathwaystoeducation.ca/program - results [Accessed 24 Nov .2016).

UNESCO IBE (2014) Competency –based curriculum and curriculum autonomy in the Republic of Korea by Keunho Lee, Working Papers on Curriculum Issues N 12 Geneva.

UNESCO (2015). The curriculum in debates and in educational reforms to 2030: for a curriculum agenda of 21st century. IBE No. 15 Geneva.

UNESCO. (2015). Repositioning and re conceptualising the curriculum for the effective realization Of sustainable development goal four, for holistic development and sustainable ways of living IBB repositioning curriculum in education quality and development ,relevance .Geneva : **UNESCO.**

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Date:

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TOPIC 1: Basis of curriculum reform leading to CBC curriculum; Vision, Mission and Goals of education.

BACKGROUND TO CURRICULUM REFORM FOR CBC and JUSTIFICATION

INTRODUCTION

The 8-4-4 system of education was introduced in 1985 following the recommendations of the 1981 „Presidential Working Party on the Establishment of the Second University in Kenya“ (Republic of Kenya, 1981). The guiding philosophy of the system was “education for self-reliance”. Several Task Force reports as well as summative and formative evaluation reports led to curriculum reviews in 1992, 1995 and 2002.

JUSTIFICATION

1. These reviews only addressed issues of curriculum content, overloads within and across subjects, unnecessary overlaps and emerging issues.
2. The reviews have not adequately addressed fundamental issues that would transform society by enhancing the productivity of every Kenyan citizen and accelerate economic growth.
3. **The Summative Evaluation of the Curriculum' (KIE, 2009)**, indicated that the curriculum content and its implementation was **academic** and **examination** oriented.
4. In addition to curriculum overload, most schools were **not adequately** provided with **equipped workshops** to facilitate the learning of **practical skills** and teachers were not sufficiently trained.
5. The graduates at secondary school level did not acquire **adequate entrepreneurial skills for self-reliance**.
6. Apart from the high **unemployment** arising from this phenomenon,
7. There was also the **risk** of the emergence of social vices such as **increased crime, drug abuse and antisocial behaviour**.
8. The current curriculum does not provide **flexible education pathways** for identifying and nurturing the talents and interests of learners early enough to prepare them for **the world of work, career progression and sustainable development**.
9. **Assessment**, which is crucial for the provision of quality education, has been limited to **summative assessment** (assessment of learning) whilst the majority of teachers hardly ever use formative assessment (assessment for learning).
10. This has led to a situation where there is fierce **competition** in learning instead of a focus on the acquisition of requisite knowledge and skills.
11. The curriculum makes **little provision** for the recognition of the **learner's potential, gifts and talents** due to an unnecessary focus on **examination**. This has contributed to **increased drop out** and **wastage rates** in the education sector as well as **high unemployment**.

Based on the 2012 „Report of the Task Force on the Re-alignment of the Education Sector to the Kenya Vision 2030 and Constitution of Kenya 2010“ chaired by Professor Odhiambo, the Government developed the Sessional Paper No. 2 of 2015 on „

Reforming Education and Training in Kenya". The Sessional Paper states that the education sector is guided by the national philosophy, which places education at the centre stage of the country's human and economic development. The Sessional Paper recommends reforming the **Education and Training** Sector to provide for the development of the **individual learner's potential in a holistic and integrated manner**, while producing **intellectually, emotionally and physically balanced citizens**. It further recommends

- a competency-based curriculum;
- establishment of a national learning assessment system;
- early identification and nurturing of talents;
- the introduction of national values and national cohesion and their integration into the curriculum; and
- introduction of three learning pathways at senior school level.

Kenya Vision 2030 and Sessional Paper No. 2 of 2015 put a strong emphasis on the **importance of science, technology and innovation** but the current curriculum does not provide deliberate policies, appropriate **pedagogical approaches** and **sufficient** resources to **lay a strong foundation** for the development of these **skills**. In addition, **innovative, vocational and technical skills** considered important for meeting the demand for **skilled labour and the country's goal of industrialization** are not well catered for in the mainstream curriculum.

Curriculum Reforms Vision

The vision of the basic education curriculum reforms is to enable every Kenyan to become an **engaged, empowered and ethical** citizen. This will be achieved by providing every Kenyan learner with **world class standards** in the skills and knowledge that they deserve, and which they need in order to thrive in the 21st century. This shall be accomplished through the provision of excellent **teaching, school environments and resources** and a **sustainable visionary curriculum** that provides every learner with seamless, competency based high quality learning that values every learner.

In order to do this, highly knowledgeable, reflective, professional teachers that have additional enhanced skills and confidence in a range of modern pedagogical tools such as **coaching, facilitating, and mentoring** shall be developed and supported.

This will enable teachers to act as **role models** for learners, **caring for and inspiring every child** to achieve his or her **potential**. It will also enable teachers to be **flexible** in adapting this new curriculum to meet the **needs, talents and interests of every child, constantly diagnosing the learner's needs and collaborating** with other stakeholders that influence the child such as **parents, other professionals and the local and wider community**.

To provide (custom made/ tailored), **differentiated, innovative** learning experiences that ensure each and every child can take their place in the world with **confidence and pride as 21st century Kenyans**. This new curriculum shall ensure that all learning can be made **contextually** relevant for every learner's holistic growth and development so that they can all become **independent, confident, co-operative, and inspired learners** who **love learning** and are keen, **focused** and able to **apply** their learning in order to make **constructive contributions** as **productive responsible** citizens who **co-operate** with **peers** around the world in their learning, through enhanced **digital** literacy and **mastery**.

In so doing, the reformed curriculum seeks to ensure that the next and **future generations** of Kenyan citizens shall be both **patriotic** and global, equipped with the **skills, knowledge, attitudes and values** to **thrive** in the **modern world, confident** about their proud and rich cultural heritage and contributing this heritage to make the **world a better place for everyone**.

Curriculum Reforms Mission

The mission of the basic education curriculum reforms is „**nurturing every learner’s potential**’. The curriculum will be designed to ensure that it provides **opportunities** to identify the **potential** that **every learner brings to school** and **nurture** this potential through the learning **pathways** and **tracks** that will be provided at Senior School. The mission will ensure that no child is **labeled a failure** at the end of basic education.

National Goals of Education

The Framework will be anchored on the National Goals of Education.

Education in Kenya should:

1. Foster nationalism, patriotism, and promote national unity

Kenya’s people belong to different communities, races and religions and should be able to live and interact as one people. Education should enable the learner acquire a sense of nationhood and patriotism. It should also promote **peace** and **harmonious co-existence**.

2. Promote social, economic, technological and industrial needs for national development Education should prepare the learner to play an effective and productive role in the nation.

a) Social Needs

Education should instill **social** and **adaptive skills** in the learner for effective participation in the **family, community, national, regional and international development**.

b) Economic Needs

Education should prepare a learner with requisite competences that support a modern and independent growing economy. This should translate into **high standards of living for every individual**.

c) Technological and Industrial Needs

Education should develop in the learner necessary **competences** for technological and industrial development for the nation in tandem with global trends.

3. Promote individual development and self-fulfilment

Education should provide **opportunities** for the learner to develop to the fullest potential. This includes development of **one’s interests, talents and character for positive contribution** to the society.

4 Promote sound moral and religious values

Education should promote acquisition of **national values** as enshrined in the Kenya Constitution. It should be geared towards developing **a self-disciplined and ethical citizen** with **sound moral and religious values**.

5. Promote social equity and responsibility

Education should promote **social equity** and **responsibility**. It should provide **inclusive and equitable** access to **quality** and **differentiated** education; including for learners with special educational needs and disabilities. Education should also provide the learner with **opportunities to develop and practice shared responsibility** and **accountability** through **community service learning**.

6. Promote respect for and development of Kenya's rich and varied cultures Education should instill in the learner appreciation of Kenya's rich and diverse cultural heritage. The learner should value own and respect other people's culture as well as embrace positive cultural practices in a dynamic society.

7. Promote international consciousness and foster positive attitudes towards other nations

Kenya is part of the interdependent network of diverse peoples and nations. Education should empower the learner to **respect, appreciate and participate** in the **opportunities** within the **international** community. Education should also enable the learner to operate within the **international community** with full knowledge of the obligations, responsibilities, rights and benefits that this membership entails.

8. Promote positive attitudes towards good health and environmental protection Education should inculcate in the learner the **value of physical and psycho-social** wellbeing for **self** and others. It should promote **environmental preservation and conservation**, including animal welfare, for sustainable development.

TOPIC 2: Basic Education Curriculum Pillars; Values, Theoretical Approaches and Guiding Principles.
Basic Education Curriculum Framework Pillars

The basic education curriculum framework (BECF) vision and mission are supported by three important ***pillars***: values, theoretical approaches and guiding principles.

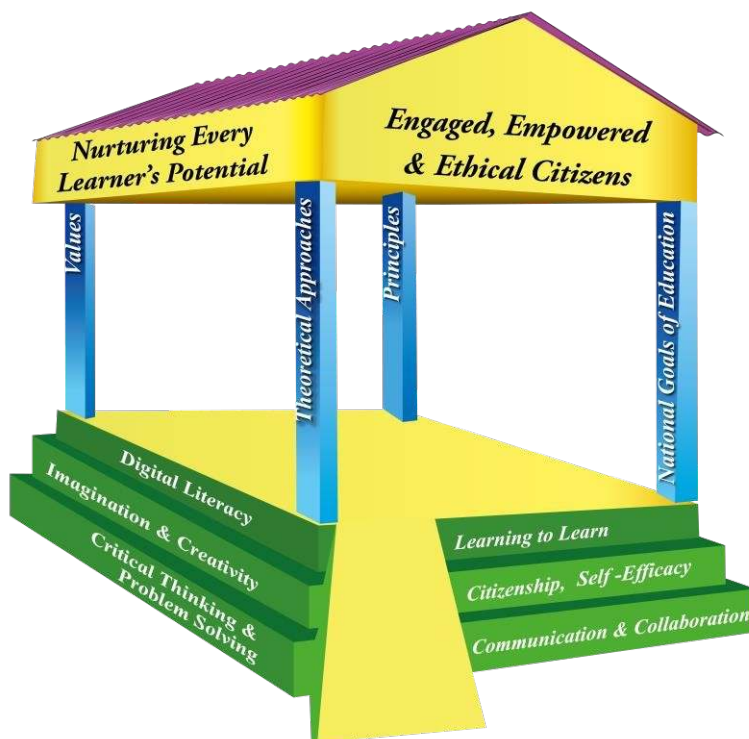


Figure 1: Pillars of the Basic Education Curriculum Framework

1. Values

Values are defined as **standards** that **guide** an individual on how to **respond** or behave in a given circumstance. Our values influence how we feel, act and make **choices** in life. Internationally, there has been a rise in the **challenges** and **issues** related with **cultural integration**, as well as **ethnic** and **religious diversity**.

In Sub-Saharan Africa, scholars have argued that the way ethnic groups interact has been responsible for **Africa's low economic growth, political instability and conflict, high inequality, and low provision of public goods and services.**

The teaching of **values** will facilitate the achievement of the curriculum reforms' vision, particularly with respect to developing **ethical citizens**. The thrust of this will be to nurture learners who do the **right thing** because it is the **right thing to do**. Students will be guided to learn about and appreciate the effort and sacrifice that built the country and **to see beyond their self interests** to the needs of the **community**. As a result, they will be provided with opportunities to **contribute** fully to the world around them – **economically, culturally, socially and politically**. Basic education will build **capacities** in learners that will enable them to be **stewards of the earth**, and **to minimize negative environmental impacts**. It will also nurture them to **build relationships** through **humility, fairness and open-mindedness**, and with **teamwork and communication**. The teaching and learning of **values** will also enable them to **value diversity** in all people and to demonstrate **respect, empathy and compassion** for all people.

In Kenya, there is a **noticeable value and behavioural crisis** among the general population and young people in particular (Pernell, 1990). **Many youngsters** are growing up **without the desired values, positive attitudes and psychosocial competencies** needed to function as **responsible** citizens. The primary responsibility for **inculcating values rests with parents and the community**, but education too has an important role to play in this regard. The Framework recognizes that **values** are important to the **socio-economic** development and stability of the country, in the same way that competencies in **academics** are important.

The Framework will take advantage of the fact that learners spend most of their **formative years** in school, which presents **opportunities** for the curriculum to **mould and reinforce** values upon which the learner's **character** is formed. The Framework will adopt a **values-based approach** to education that will create learning **opportunities** within the **formal, non-formal and informal curriculum dimensions** to inculcate the desired **values in all learners**.

According to the **Constitution of Kenya, 2010** it is imperative that the State Department responsible for education develops and incorporates values in to the curricula at all levels of education. The values stated in the Constitution include **responsibility, respect, excellence, care and compassion, understanding and tolerance, honesty and trustworthiness, trust, and being ethical**. The Framework will incorporate these and other important values that may emerge in the subject of time.

2. Theoretical Approaches

A theory is an abstract general explanation of observations or a subject under study that can be relied upon to provide **guidance** for **practice**. It attempts to predict behaviour or reach a reasonable and general set of explanations for an underlying issue. The Basic Education Curriculum Framework is underpinned by several theories.

i. Instructional Design Theory

This theory offers explicit guidance towards a new curriculum that explains **how** to help students **learn and develop** in the wake of **emerging globalization**.

Instructional design theory is design-oriented because it focuses on the **means to attain given goals for learning** and **offers guidelines on methods** to use in **different situations** in curriculum implementation. **Values** play an important role in instructional design theory. They underlie both the **goals** the curriculum pursues and the **methods** it offers to attain the goals. All these will be articulated in this BECF which takes cognizance of the place of **values** as an anchor for the **pillars** of the curriculum.

ii. Visible Learning Theory

Visible learning means an enhanced **role for teachers** as they become **evaluators** of their **own teaching**. John Hattie (2012) asserts that visible learning and teaching **occurs** when teachers **see** learning through the **eyes of students** and help them become **their own teachers**. It entails making student *learning* visible to teachers so that they can know whether they are having an **impact** on this learning, this is an important **component** of becoming a lifelong learner. This resonates with the Sustainable Development Goals. The „learning“ part of visible learning is the need to think of teaching with *learning* in the forefront and with the idea that we should consider teaching primarily in terms of its **impact on student learning**.

When the **teaching is visible** the student **knows what to do and how to do it**. When the *learning is visible* the **teacher knows if learning is occurring or not**. Teaching and learning are *visible* when the learning **goal** is not only challenging but is **explicit** (*specific, clear, detailed*). Furthermore, both the teacher and the student work **together** to **attain the goal, provide feedback and ascertain** whether the student has **attained the goal**. Evidence shows that the **greatest effects** on student learning come when not only the students become their **own teachers** (through **self-monitoring**, and **self-assessment**), but when the **teachers** become **learners** of their own **teaching**. In successful classrooms, both the **teaching** and **learning** are **visible**. This theory is important in designing a competency-based curriculum. It provides directions on the **nature of engagement** in the learning process between the **teacher**, the **learner** and the **environment**. It also provides a basis for designing a **formative** and **criterion referenced assessment**, which is the **bedrock** of a competency-based curriculum.

iii. Erik Erikson's Theory of Psychosocial Development

This theory attempts to describe **personality development** throughout the entire lifespan of an individual in **eight distinct stages**. Erikson proposed a lifespan model of development that entails **five stages** in childhood (from birth to the age of 18 years) and three stages in adulthood. According to Erikson, there is plenty of **room** for continued growth and development throughout **one's life**. The theory is underpinned by the epigenic principle which presupposes that personality develops in a **predetermined order**, and builds upon each **previous stage**. Reference to this theory will be made to minimize **frustration** and ensure that education tasks given to the child are in **alignment** with their stage of development.

Erikson assumes that a **crisis** occurs at each stage of development. These crises are of a **psychosocial nature** because they involve the **psychological needs** of the individual (i.e. psycho) conflicting with the needs of society (i.e. social). **Successful negotiation** of each stage results in a **healthy personality** and the **acquisition** of **basic virtues**. **Failure to successfully complete** a stage can result in a **reduced ability** to complete **further stages** and therefore a **unhealthier personality** and **sense of self**. To help **each** learner achieve the expected learning outcomes, a competence-based curriculum will ensure that outcomes are commensurate with the learner's stage of development.

The following table gives a summary of the tasks or crises a human being is expected to **negotiate** in order to move to the next stage of development.

Stage	Psychosocial Crisis	Basic Virtue	Age
1	Trust vs. mistrust	Hope	Infancy (0 to1 ½)
2	Autonomy vs. shame	Will	Early Childhood (1 ½ to3)
3	Initiative vs. guilt	Purpose	Play Age (3 to 5)
4	Industry vs. inferiority	Competency	School Age (5 to 12)
5	Ego identity vs. Role Confusion	Fidelity	Adolescence (12 to 18)
6	Intimacy vs. isolation	Love	Young Adult (18 to 40)
7	Generativity vs. stagnation	Care	Adult hood(40 to 65)
8	Ego integrity vs. despair	Wisdom	Maturity (65+)

(McLeod 2016)

Pedagogy and assessment therefore as discussed in these theories are inclined towards the 21st century skills and competencies which the basic education curriculum aspires to achieve in the curriculum reforms.

iv. Constructivism Theories

Different proponents of the constructivist theory have opined (opinion) that human beings **construct all knowledge** while participating in different **mental** and **physical** experiences. In constructivism, the learner builds **a personal interpretation** of the world based on **experiences** and **interactions** and learning is a process of **constructing knowledge** rather than acquiring or communicating it. Among its proponents are **Dewey, Vygotsky, Piaget, Brunner**, and more recently **Gardner** and **Hattie**.

a. Dewey's Social Constructivism

Dewey felt that the curriculum should ultimately produce students who would be able to deal **effectively** with the **modern world**. Therefore, curricula should not be presented as **finished abstractions**, but should include the child's **preconceptions** and should incorporate how the **child views his or her own world**. Dewey uses four instincts, or impulses, to describe how to characterize children's behavior. The four instincts according to Dewey are **social, constructive, expressive, and artistic**. Curricula should build an orderly sense of the world where the child lives. He makes connections between **subjects** and the **child's life**. According to Dewey, education is **growth** and not an **end in itself**, and thus the curriculum should arise from **students' interests** and should be **hands-on (practical) and experience** based rather than **abstract (theoretical)**. This theory underscores the emphasis of continuous, participatory and experiential learning. This is an emphasis of the **practical** aspect of the basic education curriculum in the curriculum reforms.

b. Vygotsky's Social-Cultural Development Theory

Vygotsky's **social-cultural theory** emphasized that **teaching and learning** are **highly social activities** and that **interactions** with **teachers, peers** and **instructional materials** **influence** the **cognitive** and **affective** developments of learners (Kim and Baylor, 2006). The theory argues that learning takes place when learners **interact** with each other, or have other social contact. Learners negotiate meanings with people in the **environment**, and they achieve goals through **interacting**, both explicitly and implicitly, with the **teacher, peers, materials, and atmosphere** embedded in the **context**. This theory underpins the basic education curriculum framework in terms of conceptualizing and designing the necessary paradigm shifts that will facilitate creating **rich learning environments** which will **stimulate** all learners and help them to **fulfil their potential**.

Vygotsky's theory emphasizes that while adults may learn **independently**, children require **mediation** from others before they **can learn on their own**. He called this process of moving from being **mediated** by others to learning independently **scaffolding**. Within **scaffolding**, he identified an optimal point where learning takes place and called this the Zone of Proximal Development (ZPD). The concepts of **scaffolding** and **ZPD** will be useful in designing the **pedagogical shifts** that teachers will be **trained** in to facilitate adoption of a competency-based curriculum in basic education. Activities in the classroom will include journaling, **experiential** activities, and **collaborative** and **cooperative** learning.

c. Howard Gardner's Multiple Intelligence Theory

Gardner's theory grew out of constructivism. It states that learners possess different **kinds of minds** and therefore **learn, remember, perform** and **understand in different ways**. He argues that we are **all able to know the world** through **language, logical-mathematical analysis, spatial representation, musical thinking, use of the body to solve problems or to make things, an understanding of other individuals and an understanding of ourselves**. Recognizing this enables learners to leverage their **strengths** and **purposely** target and develop their **weaknesses**. Pedagogical approaches under this theory emphasize the

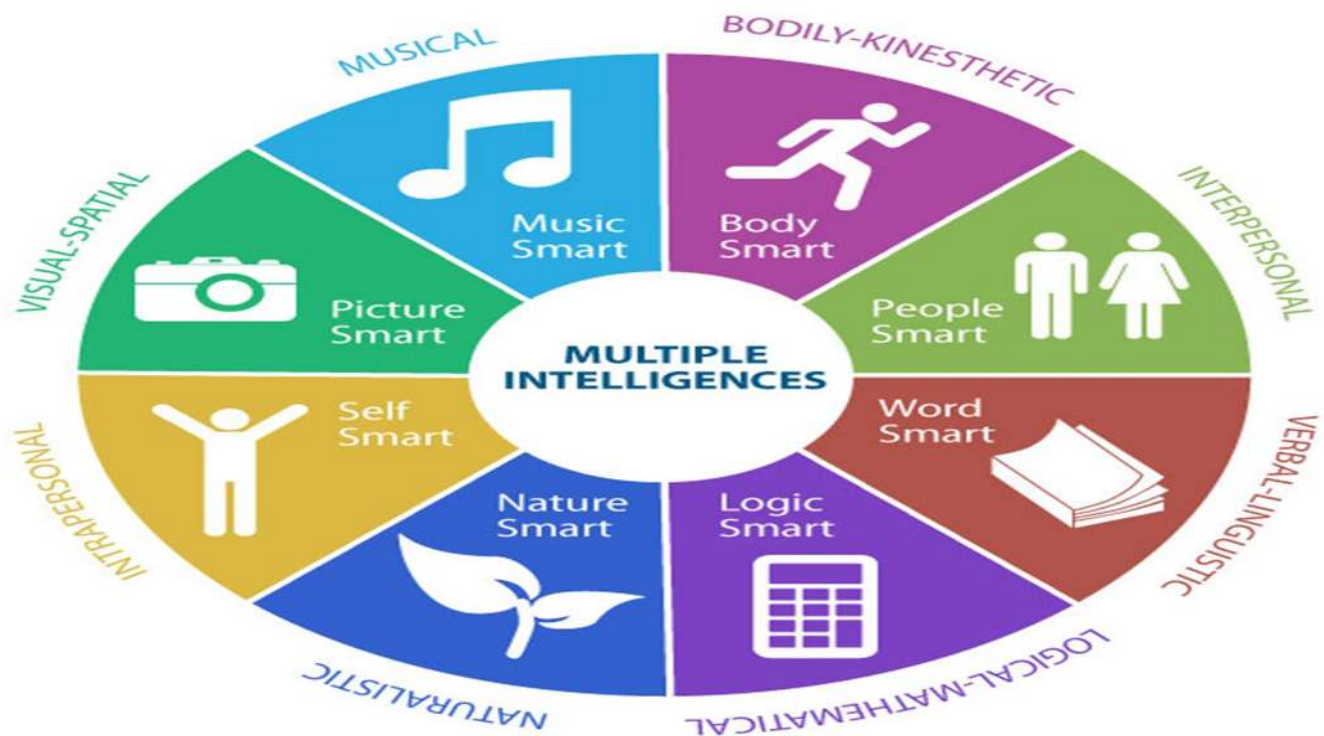
importance of a **learner centered classroom**, **self-directed learning** and delivery of instruction via **multiple mediums**.

Gardner maintains that **intellectual differences** challenge an educational system which **assumes** that **everyone** can learn the **same materials** in the **same way** and that a **uniform, universal measure** suffices to test student learning. Currently, our educational system is **heavily biased** toward **linguistic modes of instruction** and **assessment**. Given the need to *identify, develop and nurture the talents* of learners in the reformed curriculum, Gardner's argument that learners can **learn in ways** that are **identifiably** distinctive is crucial. The **broad spectrum** of learners – and perhaps **society** as a whole – would be better served if **disciplines** could be presented in a **number of ways** and learning could be **assessed** through a **variety** of means.

THE THEORY OF MULTIPLE INTELLIGENCIES BY HOWARD GADNER

The 9 Intelligences of MI Theory

	Intelligence	Skills and Career Preferences
1.	Verbal-Linguistic Intelligence Well-developed verbal skills and sensitivity to the sounds, meanings and rhythms of words	Skills - Listening, speaking, writing, teaching. Careers - Poet, journalist, writer, teacher, lawyer, politician, translator
2.	Mathematical-Logical Intelligence Ability to think conceptually and abstractly, and capacity to discern logical or numerical patterns	Skills - Problem solving (logical & math), performing experiments Careers - Scientists, engineers, accountants, mathematicians
3.	Musical Intelligence Ability to produce and appreciate rhythm, pitch and timber	Skills - Singing, playing instruments, composing music Careers - Musician, disc jockey, singer, composer
4.	Visual-Spatial Intelligence Capacity to think in images and pictures, to visualize accurately and abstractly	Skills - puzzle building, painting, constructing, fixing, designing objects Careers - Sculptor, artist, inventor, architect, mechanic, engineer
5.	Bodily-Kinesthetic Intelligence Ability to control one's body movements and to handle objects skillfully	Skills - Dancing, sports, hands on experiments, acting Careers - Athlete, PE teacher, dancer, actor, firefighter
6.	Interpersonal Intelligence Capacity to detect and respond appropriately to the moods, motivations and desires of others	Skills - Seeing from other perspectives, empathy, counseling, co-operating Careers - Counselor, salesperson, politician, business person, minister
7.	Intrapersonal Intelligence Capacity to be self-aware and in tune with inner feelings, values, beliefs and thinking processes	Skills - Recognize one's S/W, reflective, aware of inner feelings Careers - Researchers, theorists, philosophers
8.	Naturalist Intelligence Ability to recognize and categorize plants, animals and other objects in nature	Skills - Recognize one's connection to nature, apply science theory to life Careers - Scientist, naturalist, landscape architect
9.	Existential Intelligence Sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life, why do we die, and how did we get here	Skills - Reflective and deep thinking, design abstract theories Careers - Scientist, philosopher, theologian



d. **Piaget's Cognitive Development Theory**

- Piaget's theory deals with how humans **gradually** come to **acquire, construct, and use knowledge**.
- He looked at the **impact a person's childhood** had on their development, and the ways in which maturation affect a child's **increasing capacity** to **understand** their world.
- Piaget asserted that children **cannot undertake certain tasks** until they are **psychologically mature** enough to do so.
- There is progressive **reorganization** of mental processes resulting from **biological maturation** and **environmental experience**.
- Children's thinking does not develop entirely smoothly, instead, there are certain points at which it **"takes off"** and moves into completely **new areas** and **capabilities**.
- These points are in four stages of cognitive development: sensory motor (0-2 years), language development and conceptual thought (2-7 years), concrete operations (7-11 years) and formal operations (11 years and above).
- Before these ages, children are **not capable (no matter how bright)** of understanding things in certain ways,
- This has been used as the basis for scheduling the school curriculum.
- Parents are encouraged to provide a **rich, supportive environment** for their **child's natural propensity** (tendencies) to grow and learn.
- Parent involvement in learning is an active element in reforming the basic education curriculum.

e. **Bruner's Cognitive Development Theory**

- Bruner's constructionist theoretical framework is based on the theme that learners **construct** (build) new ideas or concepts based upon **existing knowledge**.
- According to Bruner (1976) the facets of the learning process include **selection and transformation of information, decision making, generating hypotheses** and **making meaning from information and experiences**.
- Interpreting information and experiences by similarities and differences is a key concept. The theory identifies four **key themes**:

a) The role of **structure in learning** and how it may be made central in teaching. Structure refers to **relationships** among **factual elements** and **techniques**.

b) **Readiness for learning** and **spiral curriculum**. Bruner believed that any subject could be taught at any stage of development in a way that fit the **child's cognitive abilities**. **Spiral curriculum** refers to the idea of **revisiting basic ideas over and over, building upon them and elaborating to the level of full understanding and mastery**.

c) **Intuitive** (*spontaneous, no conscious thought required*) and **analytical thinking** should both be **encouraged** and **rewarded**. He believed the **intuitive skills** (instinctively, immediate perception, perceptive insight) were **under-emphasized** and he reflected on the ability of experts in every field to make **intuitive leaps**.

d) **Motivation and interest for learning**. He felt that ideally, **interest** in the subject matter is the **best stimulus** for learning. Bruner was against **external competitive goals** such as **grades** or **class ranking** (the principle of **success** and **excellence** i.e. success is **being the best** by comparing with others, excellence is **doing your best**)

- Just like the other constructivists, Bruner placed emphasis on **learning instruction** that allows learners to **discover principles for themselves**
- **Knowledge** should be structured in a way that **is readily grasped** by learners.

3. Guiding Principles

The Framework is based on the following **guiding principles**:

1. Opportunity

- The curriculum provides learners with a **variety of opportunities** to enable them to **identify their needs, talents and potential**.
- This will enable learners to participate in the **world of work** and the development of the **nation**.
- The emphasis is on **equal access to education for all**.
- This will enable learners to **enjoy learning** and reduce **wastage** in terms of learners leaving school because the curriculum is not **relevant to their needs**.

2. Excellence

- Every learner will be **nurtured** to **excel** in their **areas of greatest interest** and **ability**.
- The Framework values **excellence** and **competitiveness** rather than raw **competition** for examination grades.
- This will play a role in helping to reduce the **challenge** of **malpractice** in examinations because each learner will be guided to **excel** in their area of **interest** and **ability**.

3. Diversity and Inclusion

There are two dimensions in the guiding principle of diversity and inclusion.

- First, the Framework will guide learners to **appreciate Kenya's diversity in terms of race, ethnicity, gender, language, culture, and religion**.
- The second dimension relates to the fact that learners are **different** in terms of their **learning needs** and **abilities** and these differences need to be **respected** and **valued** within an **inclusive** learning environment.
- Inclusion entails ensuring that all learning **institutions accommodate** all learners regardless of their **physical, emotional, intellectual**, or any other need.
- It involves provision of **reasonable accommodation** characterized by **flexibility, responsiveness** and **support**.
- The Framework recognizes that **not all learners are academically gifted** but considers every **learner's social and cognitive capabilities, their needs and desires, and respects the differences** in the way children learn.
- The ultimate aim is to **guarantee basic education for every learner** according to their **abilities** and **needs**.

- The curriculum reforms should address the **needs** of **children** and **youth** who are **out of school**, and **adults**, to increase their **access** to and **participation** in education, and hence, raise their **literacy** levels for personal and national social economic development.

4. *Differentiated Curriculum and Learning*

- Differentiated curriculum and learning builds on the **principle of diversity** and **inclusion**.
- It ensures that the curriculum **content** and **instructional approaches** are **appropriate for each** learner.
- It provides space for teachers to **adapt** the curriculum to **suit** the learner.
- It does **not demand** that every learner learn the **same content in the same way**, in the **same number of hours** and **at the same time**.

5. *Parental Empowerment and Engagement*

- Parents play a very important role in determining the **success** of a child's education.
- They have a shared responsibility with schools to provide an **enabling environment** that is **conducive** to learning and which **motivates** the child to **achieve** their **full potential**.
- The Framework provides **opportunities** for schools to **empower parents** to **contribute** to the **learning outcomes** for their children and to be **engaged** at all tiers (ranks) and levels of basic education.

6. *Community Service Learning*

- Community service is a form of **experiential education** that enables students to **apply their knowledge** and **skills in a different setting**. Teachers then support students to analyze **what** they have **learned** by **taking part in this activity** and **how** it might be **applied** to their **academic and personal development**.
- Community service learning entails a **balanced** emphasis on **both students' learning and addressing real needs in the community**.
- Learning **outcomes** are linked to **meaningful human, safety, educational, and environmental needs** that are co-determined with community partners and **service recipients**.
- The **service experience** is **brought back to the classroom** to enhance learning.
- Learners work on **real problems** that make academic learning **relevant** while simultaneously enhancing their **social skills, analytical ability, civic and ethical responsibility, self-efficacy** and **career development**.

TOPIC 3: Core Competencies for Basic Education

- A competency-based approach enables **meaningful connections** within and between **subject areas** through a **focus on competencies**.
- Subjects will continue to be taught and will be the **vehicles** through which the **core competencies** are developed over time.
- In the **context** of the **Kenyan Competency Based Curriculum (KCBC)**, competency is understood as „**the ability to apply appropriate knowledge and skills to successfully perform a function**“.
- The curriculum is designed to emphasize the importance of not only **developing skills** and knowledge but also **applying** these to **real life situations**.
- The integration of **pertinent and contemporary issues** and **service learning** into the framework provides the opportunity for learners to **develop** and **apply** their **skills** and knowledge, or in other words, their competencies.

Based on the Needs Assessment Study carried out by KICD, and the vision and mission of the BECF, the **seven core competencies** to be achieved by every learner in basic education are:

1. *Communication and Collaboration*
2. *Critical Thinking and Problem Solving*
3. *Creativity and Imagination*
4. *Citizenship*

5. *Digital Literacy*

6. *Self-efficacy*

7. *Learning to Learn*

The Framework seeks to develop these competencies so that **all Kenyans can thrive in the 21st century**.

1. *Communication and Collaboration*

- **Communication** is the act of transferring information from one place to another, whether **vocally, visually, or non-verbally**.
- The **discipline** of communication focuses on how people **use messages to generate meanings** within and across various **contexts, cultures, channels, and media**.
- The discipline promotes the **effective and ethical practice** of human communication.
- Spitzberg (1988) defines **communication competence** as the ability to **interact well** with others in terms of **accuracy, clarity, comprehensibility, coherence, expertise, effectiveness and appropriateness**.
- On the other hand, Friedrich (1994) suggests that **communication competence** is best understood as **"a situational ability to set realistic and appropriate goals and to maximize their achievement by using knowledge of self, other, context, and communication theory to generate adaptive communication performances."**
- Being able to **communicate effectively as intended is the most important of all life skills**.
- How well **information** can be **transmitted and received is a measure of how good our communication skills** are.
- Developing communication **skills** helps in all aspects of **an individual's life**.
- Parks (1985) maintains that **communicative competence** can effectively be measured by **determining if, and to what degree, the goals of interaction are achieved**.
- He argues that to be **competent**, learners must not only **'know' and 'know how,'** but rather they must also **'do' and 'know that we did'**.
- Education at each level should endeavor to enhance the **learner's acquisition of effective communication skills** through which they can **interact and express** themselves during the learning process.
- In this respect, it would be prudent to be cautious when deciding on the **language** to be used as a **medium** of instruction at the early year's education level.
- It is important to take cognizance of **appropriate modes of communication** for learners with special educational needs.

Collaboration is the process of **two or more people or organizations working together to realize shared goals**. Strategies for effective **communication** enhance the attainment of greater **collaboration** among groups that ultimately increase the **success of teams** as they engage in **collaborative problem solving**. Collaborative learning is a system in which two or more people **co-operate** in a learning experience to **share** and contribute to each member's understanding of a topic and to complete a given task. Collaborative learning is designed to help **learners learn from each other** and can be an **important** aspect of the school curriculum. There are many **team building games and activities** that can be done in a classroom that force learners to **work together to complete** a task.

2. *Critical Thinking and Problem Solving*

An important outcome of quality education is teaching learners **how to think critically**. The British Council (2015) identifies **three types of thinking: reasoning, making judgements and problem solving**. It is possible for learners to **reason** in an uncritical way. When learners are empowered with critical thinking, they

avoid being **subjective** and **use logic** and **evidence** to arrive at conclusions. Critical thinking also **facilitates exploring new ways** of doing things and learner **autonomy**. Learners learn that for every issue there are **multiple perspectives** that they can **explore**, rather than a **rigid recall** and **regurgitation** (repetition) of information.

Critical thinking is important for lifelong learning. It helps learners to have an **open mind** and be ready to **listen** and **appreciate information** and **opinions** that may sometimes **conflict** with their earlier held **beliefs** and **positions**. Critical thinking and problem solving are useful for learners of all ages and in all the subjects and disciplines offered in the basic education curriculum. For example, in the sciences learners need to think critically about observations and patterns to develop ideas on how to solve problems. These competencies are also important for solving problems in their lives and communities help them to fulfil their **potential**, which is the vision for the basic education curriculum. This will contribute to addressing the **unemployment challenge** in Kenya.

Critical thinking and problem solving will be developed through age appropriate activities and programs in the school curriculum. For example, at pre-primary school level learners can be asked to come up with the best ways of using and keeping their books, stationery and other personal items safe. At the other end of the basic education spectrum, learners can be asked to come up with the best ways of addressing the **challenge of scarce resources** such as water in the school and community.

3. *Creativity and Imagination*

Creativity and imagination refer to the **ability** to **form new images** and **sensations** in the **mind**, and to turn them into **reality** (British Council, 2016). It is the ability to imagine things that are **not real**, to **form pictures** in the mind of things that one has **not seen** or **experienced**, and turn those **pictures** into **real things**. It also refers to the act or **power** of **forming mental images of things** that are not present to the senses, or that are **never wholly perceived in reality** and **creating physical representations** of those **images**. Imagination only exists or **happens in the mind** and it remains in the **mind**. Creativity and imagination on the other hand, is characterized by the ability to **perceive the world in new ways**, to find **hidden patterns (secrets)**, to make connections between seemingly unrelated phenomena, and to **generate solutions**. It is a phenomenon whereby something **new and valuable** is formed.

In educational terms, creativity and imagination refers to the **ability** of learners and their teachers to **form images** and **ideas in their minds**, and turn them into **real, visible creations**. Learners who are imaginative and creative are able to make life **interesting** for themselves and **others** around them. They are able to use the **knowledge, skills** and **values** acquired in the learning process to **create new ideas** that result in **products** that **add value** to their **lives** and to the **lives of others** around them. The competence-based curriculum recognizes this **hidden ability** in learners. It will therefore, inspire learners' imagination by presenting knowledge in ways that encourage learners to **think** as individuals. It will create scenarios that help learners to engage in imagination and encourage them to develop **creations** steered by the imagination. Their ability to imagine will be stretched through exposure to **challenging situations** that help to expand their thinking and creativity skills. The curriculum also create room for **innovative ways** of teaching as well as creating an **environment conducive** to learning that offers **all learners opportunities** to **explore their full potential** in and through creativity and imagination.

4. *Citizenship*

Citizenship is the state of being vested with **the rights, privileges** and **duties** of a citizen. It creates a sense of **belonging** and **attachment** to **one's nation**. A sense of citizenship helps to equip young people to deal with situations of conflict and controversy **knowledgeably** and **tolerantly**. They are able to understand the consequences of their actions, and those of the adults around them.

Global citizenship is a way of living which recognizes that our world is an increasingly complex web of **connections** and **interdependencies**. One in which our **choices** and **actions** may have **repercussions** for people and communities locally, nationally or internationally. It nurtures **personal respect** and **respect for others**, wherever they **live**. It encourages individuals to think deeply and critically about what is equitable and just, and what will minimize harm to our planet.

5. *Digital Literacy*

Digital literacy can be described as having the **knowledge, skills and behaviours** which are necessary to **effectively** and **safely** use a **wide range of digital content** and **devices**. Such devices include **mobile phones, smart phones, tablets, laptops and desktops among others**. All these falls within the category of network enabled devices. Digital literacy focuses mainly on **network enabled devices** and should not be confused with **computer literacy skills**. However, traditional forms of literacy and computer literacy are enhancers in the acquisition of digital literacy skills.

Individuals are presumed to be digitally literate if they possess a broad range of digital skills and knowledge, and have a basic understanding of the potential uses of computing devices. Digital literacy skills also include being able to use computer **communication networks**, being able to engage in **online communication** and **social networks**, being aware of and adhering to **ethical behaviour** protocols, being aware of societal issues raised through digital media, and being able to **search, evaluate** and **use information** channelled through digital platforms. Furthermore, the digital literate individual should also have the ability to **safely** and **securely** use technology while being able to assess the nature of the information acquired in order to support and enhance the environment (British Council, 2015). Digital literacy as a competence therefore encompasses knowledge and skills concerning the appropriate application of a variety of hardware platforms such as **computers, tablets and mobile devices**, and their **software** including but not limited to **web search or internet** application software. Digital literacy is a **dynamic competence** due to the fast-changing world of information communication technology and the ongoing development of technological devices as well as their related software. This is an area in which there is **constant innovation** and **development** as the industry attempts to keep up with a globally increasing demand for **efficient** and **effective communication** technologies. Currently, digital literacy is considered as one of the main **core competencies** for learning and life in the 21st century. It challenges existing thinking and practice while leading to a more innovative, creative and often transformational learning.

6. *Self-efficacy*

Self-efficacy is a **person's belief** about his or her **capabilities to perform tasks or assignments** that can **change** and **transform** his or her life. It determines how the person **feels, thinks, behaves** and **motivates** themselves. Self-efficacy has the potential to determine four major processes namely **cognitive, motivational, affective** and **selection processes**.

A strong sense of **self-efficacy** enhances a **learner's accomplishment** and **personal well-being** in many ways. Learners with **high assurance** in their **capabilities approach difficult tasks as challenges** to be mastered, rather than as **threats** to be **avoided**. Self-efficacy fosters **intrinsic interest** and deep engrossment in activities. Learners set themselves **challenging goals** and **maintain a strong commitment** to them.

Self-efficacy as a competence will enable learners to **develop and nurture intra-personal skills** and **values** such as **self-awareness, self-esteem, confidence and personal integrity**. These competencies will enhance the learner's ability to **heighten** and **sustain** efforts in the face of **failure** and **effectively manage stressful situations**. A learner with a strong sense of self-efficacy will be **courageous** and **bold** enough to set and **pursue personal educational, family, community, entrepreneurial, professional, and career goals** in all forms of employment that will lead to personal accomplishment (British Council, 2016). An efficacious learner will be **aware** of the **resources** at their **disposal** and will **take personal responsibility** for the **use, care, management, protection and preservation** of these resources.

A learner with strong self-efficacy will be **internally motivated** to **establish** and **maintain healthy interpersonal relationships**. They will demonstrate interpersonal relationship skills such as *assertiveness, empathy, effective communication, negotiation skills, non-violent conflict resolution skills and peer pressure resistance skills*. Creative and critical thinking that leads to effective decision making and problem solving is based on a strong sense of self-efficacy (British Council, 2016). **Capacity building of teachers** and **parental engagement** are two crucial factors that would **determine acquisition of self-efficacy**. The school will be expected to provide **opportunities** for parents to be **empowered** and **engaged** in the affairs and welfare of their children's education.

7. *Learning to Learn*

Learning is a continuous process that begins at birth and continues until death; it is the process through which we **use our experience** to deal with **new situations** and to develop **relationships**. As a concept, it involves far more than thinking as it incorporates the **whole personality – senses, feelings, intuition, beliefs, values and will**. If we do not have the **will to learn**, we will not learn and if we have learned, we are actually changed in some way. If the learning makes **no difference** it can have very little **significance** beyond being random ideas that float through our consciousness.

Learning to learn is the ability to **pursue** and **persist** in learning, to organize one's own learning by the **effective management of time and information**, both individually and in groups. This competence includes **awareness of one's learning** process and needs, **identifying available opportunities**, and the ability to **overcome obstacles** in order to learn successfully. This competence **means gaining, processing and assimilating new knowledge and skills** as well as **seeking and making use of guidance**. Learning to learn helps **learners to build on prior learning and life experiences** in order to **use and apply knowledge and skills** in a variety of contexts. There are **four pillars of learning**: Learning to **know**, learning to **do**, learning to **be** and learning to **live to live together**.

A competency-based curriculum has the following strengths:

1. Learner-focused

The focus should be less on the school and the system and more on the education and the learner. The curriculum should be responsive and relevant to learners and enable flexibility for teachers – who are designers of learning opportunities – to enable them to meet the diverse needs of the students.

2. Focus on Competencies

More focus should be directed to competencies and less on content. The goal should be the appropriate application of knowledge, and not necessarily just its acquisition. This kind of curriculum enables the creation of meaningful connections within and among subject areas by focusing on competencies. Subjects/subjects/disciplines will continue to be taught and will be the vehicle through which literacy, numeracy and other competencies are developed over time.

3. Opportunities for Local Decision Making and Greater Depth of Study

Prescriptive curricula with limited flexibility should be avoided, as should programs that have fewer learning outcomes. The goal is to enable greater flexibility at the local level. Teachers will have autonomy in implementing the curriculum while teaching.

4. Balance Between Formative and Summative Assessment

Too much focus on summative assessment should be avoided. A range of assessment that focuses on the development of student learning outcomes, cross-curricular competencies, and literacy and numeracy should be adopted.

5. Digitally Based

The design of the curriculum within a collaborative digital application enables it to be improved continuously and supports learning with flexible timing and pacing through a range of learning environments.

6. Collaborative and Co-development Models

Collaboration by all stakeholders in the curriculum design should be the norm. Co-creation of the curriculum with partners and stakeholders taps into local expertise to enhance its design and development. Content delivery will be flexible and exploratory.

7. Synchronous Development

Sequential development needs to be replaced with synchronous development. An integrated approach to develop programmes of study, assessments, and learning and teaching resources supports a common approach that encourages interdisciplinary learning.

Subjects

These are the subjects taught at various levels of the education. For example, English, Mathematics, Science and Technology. Subjects are the means through which the **key competencies, values and knowledge** will be taught across all levels of learning. However, they are not **static** and may change to address the ever-changing needs of society.

TOPIC 4: Organization of Basic Education; Early years education – learning outcomes, essence statement and subjects

Organization of Basic Education

Basic Education is organized into three (3) levels: **Early Years Education**, **Middle School Education** and **Senior School**. Figure 2 presents a summary of the structural model.

ORGANIZATION OF BASIC EDUCATION

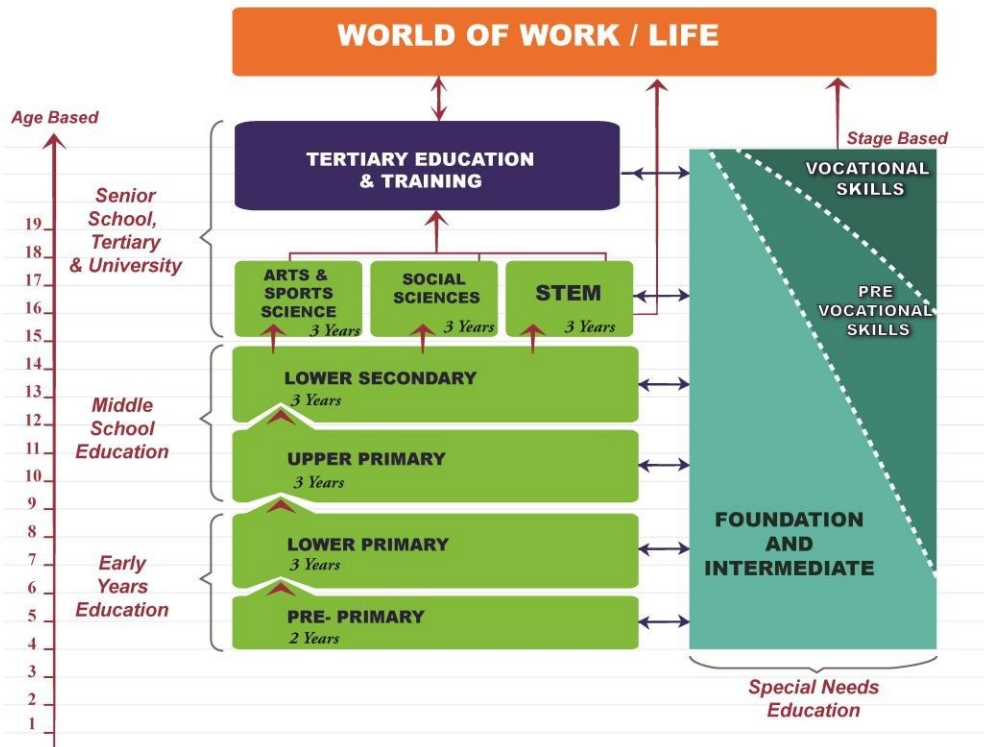


Figure 2: Basic Education Structural Model

1. Early Years Education

This shall comprise **two years** of pre-primary and **three years** of lower primary school education.

EARLY YEARS EDUCATION

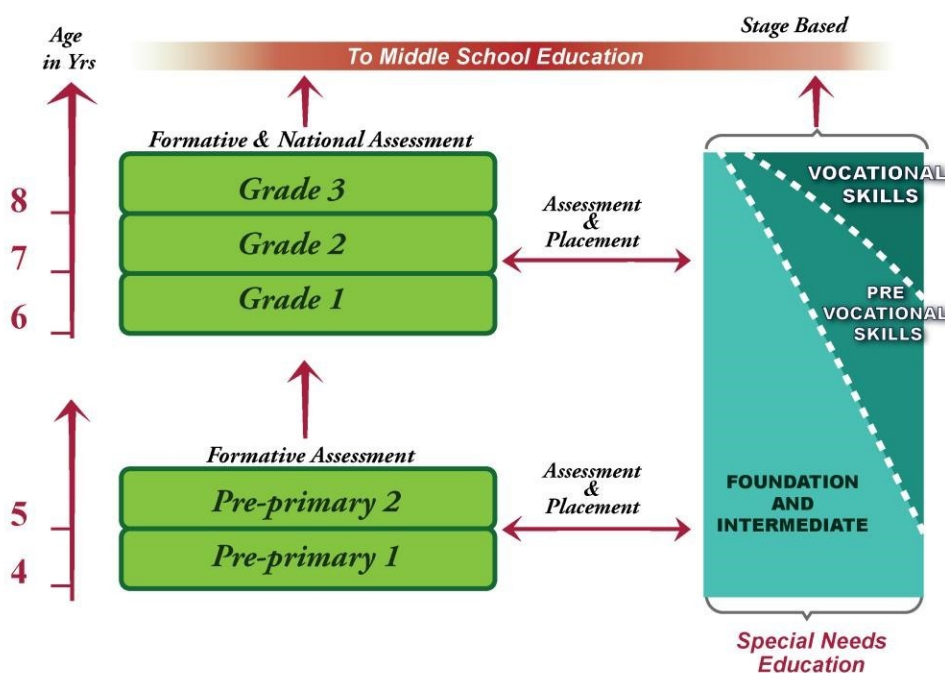


Figure 3: Early Years Education Structural Model

Learning Outcomes for Early Years Education

By the end of early years" education, the learner should be able to:

1. Demonstrate basic literacy and numeracy skills for learning.
2. Communicate appropriately using verbal and/or non-verbal modes in a variety of contexts.
3. Demonstrate appropriate etiquette in social relationships.
4. Apply creativity and critical thinking skills in problem solving.
5. Explore the immediate environment for learning and enjoyment.
6. Practice hygiene, nutrition, sanitation, safety skills to promote health and wellbeing.
7. Demonstrate the acquisition of emotional, physical, spiritual, aesthetic and moral development for balanced living.
8. Demonstrate appreciation of the country's rich and diverse cultural heritage for harmonious co-existence.
9. Apply digital literacy skills for learning and enjoyment.

Pre-primary Education

All learners are expected to begin their education at this level. It is a two-year program.

Subjects for Pre-primary (Two Years)

1. Language Activities
2. Mathematical Activities
3. Environmental Activities
4. Psychomotor and Creative Activities
5. Religious Education Activities

NB: Digital literacy and pertinent and contemporary issues will be integrated across all Subjects.

Essence Statements for the Pre-primary Curriculum

Language Activities

Language is an important tool for facilitating learning as children use it to interact with their immediate environment. It is a medium of communication and a critical component of socialization as it equips learners with skills that are necessary for listening and speaking as well as developing literacy skills. Language acquisition at the formative level of human development is based on several theoretical frameworks attributed to a number of early childhood specialists and theorists such as Tricia (2004).

The essence of this activity area is to develop **oral, reading readiness and writing readiness competencies in order to lay the strong foundation for language acquisition**. In pre-primary education, the medium of instruction is the language of the catchment area. The aim of teaching language activities at pre-primary school level is to enable learners to express themselves **fluently** and to assist them to improve the **listening ability, concentration, understanding and memory**.

Mathematical Activities

Mathematical activities are important for laying a **firm foundation** for **logical thinking** and **problem solving**. Learning mathematics at pre-primary level empowers children to engage in **basic analysis** of problems and development of **appropriate solutions in day to day life**. It enhances **logical and critical thinking, accuracy and problem solving**. During the early childhood stage of development, learners are more engaged when using **manipulative** (carbonneau et al, 201; Cocket and Kilgour, 2015). Similarly, Piaget and Bruner attest that children at this level **use hands-on manipulation** to physically arrive at a mathematical solution.

Pre-primary mathematics curricula should therefore comprise learning basic mathematical concepts through **manipulation of concrete objects** and not **abstract knowledge**. Activities at this level form a **firm foundation** for the acquisition of **competencies in classification, number and measurement skills**.

Environmental Activities

Environmental activities entail the relationship between **human beings and their environment**. These activities enable the child to **develop positive relationships, appreciate the surrounding environment and cultural heritage, develop observation and discovery skills** and **acquire life skills** required to ensure safety in their environment. The curriculum must therefore offer opportunities for the children to explore the environment around them in order to acquire knowledge and skills that form the foundation for further learning. Exploration of the environment allows unlimited opportunities for children to learn and satisfy their curiosity and makes learning more fun for them.

Psychomotor and Creative Activities

Psychomotor and creative activities at pre-primary level enable learners to develop **both fine and gross motor skills** which are necessary for the control and co-ordination of different parts of the body. These activities enhance exploration and development of personal talents and skills as well as appreciation of their cultural heritage.

Pre-primary physical and creative curriculum comprises play and learning activities through which children exercise their bodies thereby facilitating blood and oxygen circulation for healthy and strong growth and development as well as creative activities through which children develop their fine motor skills, imagination and creativity thereby developing their talents.

Religious Activities

Children need to participate in activities that **integrate religion and moral values**. Teachers should help children to appreciate people of different religious backgrounds and to **differentiate right and wrong** at an early age so they can **grow up as upright members** of the society. Children need to be introduced to such **values** at an early age. It is therefore important to **emphasize religious education in schools in order to instil acceptable religious and moral values in young children**.

Religious Education Activities at pre-primary level comprise learning about the **supernatural** being (God). The aim of moral and religious activities at pre-school level is to develop awareness and appreciation of the **generosity, love and care of God** in all He has created, and to enable children to acquire the qualities of **sharing, respect, kindness, getting along with others**.

2. Lower Primary

The learners from pre-primary 2 will join lower primary in grade 1 at about 6 years of age and spend 3 years in this part of Early Years Education before exiting to middle school at the end of grade 3.

Subjects

The following will be the Subjects in lower primary

1. Literacy
2. Kiswahili Language Activities/Kenya Sign Language for learners who are deaf
3. English Language Activities
4. Indigenous Language Activities
5. Mathematical Activities
6. Environmental Activities
7. Hygiene and Nutrition Activities
8. Religious Education Activities
9. Movement and Creative Activities

NB:

- ICT will be a learning tool in all areas.
- Pertinent and contemporary issues will be mainstreamed in all Subjects.

Essence Statements for Lower Primary and various subjects

Literacy

Literacy is the ability to read, write and use language proficiently. According to UNESCO, literacy is a basic human right. Literacy as a subject addresses the ability of the learner to make **meaning of letters and sounds thus making sense of written codes**. It shall be taught in the first language of the learner. At this foundational level, literacy aims at equipping the learner with **basic skills in reading and writing** to aid in all other Subjects. It will assist the learner to communicate with others as well as promote learning to learn.

English Language Activities

English is one of the official languages of communication in country. It is also the second highest spoken language globally. Learners should be taught the foundational skills of **reading** and writing the English language at the earliest opportune time.

Religious Education Activities

Kenyan society celebrates various religious faiths. The constitution advocates for the development of values, and religious education is one of the channels through which the requisite values are inculcated in learners. This subject aims at equipping the learner with knowledge, skills, values and psychosocial competencies that assist them to grow up as socially, emotionally and spiritually **balanced** individuals. Moral, religious and life skills activities will enhance the learner's skills of knowing and living with oneself and others. In line with

constructivist theory the teaching and learning of religious education has essential principles which include making links between learner's own experiences, needs, interests and beliefs, and the content being studied, while engaging in collaborative and co-operative problem solving.

OTHER SUBJECTS

These includes:

- Hygiene and Nutrition Activities
- Indigenous Language Activities
- Kiswahili Language Activities or KSL for Learners Who Are Deaf
- Mathematical Activities
- Environmental Activities
- Movement and Creative Activities

TOPIC 5: Middle school education –learning outcomes, essence statement and subjects;

Middle School Education

This shall comprise **three years of upper primary** and **three years of lower secondary education**. This is illustrated in Figure 4.

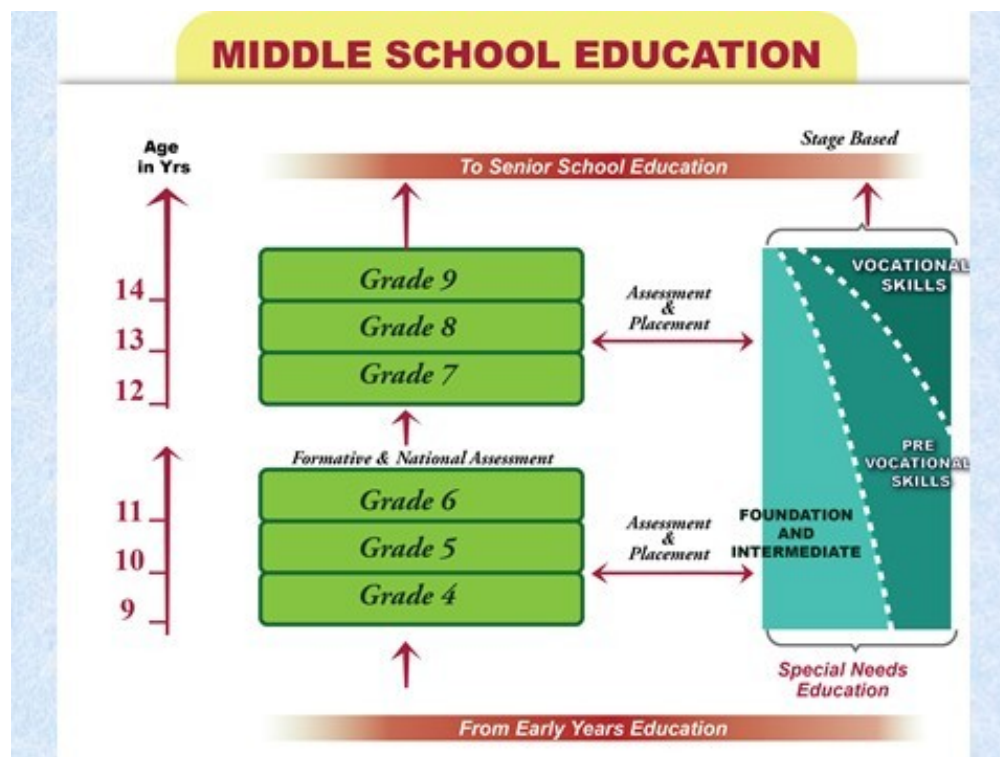


Figure 4: Structure of the Middle School Comprising Upper Primary and Lower Secondary Learning Outcomes for Middle School

By end of middle school, the learner should be able to:

1. Apply literacy, numeracy skills and logical thinking appropriately in self-expression.

2. Communicate effectively in diverse contexts.
3. Demonstrate social skills, and spiritual and moral values for peaceful co-existence.
4. Explore, manipulate, manage and conserve the environment effectively for learning and sustainable development.
5. Practice hygiene, appropriate sanitation and nutrition to promote health.
6. Demonstrate ethical behaviour and exhibit good citizenship as a civic responsibility.
7. Demonstrate appreciation of the country's rich and diverse cultural heritage for harmonious co-existence.
8. Manage pertinent and contemporary issues in society effectively.
9. Apply digital literacy skills appropriately for communication and learning.

Upper Primary

Upper primary is part of middle school (Figure 5). It is a three-year programme where learners are exposed to a broad curriculum and given an opportunity for **exploration** and **experimentation**.

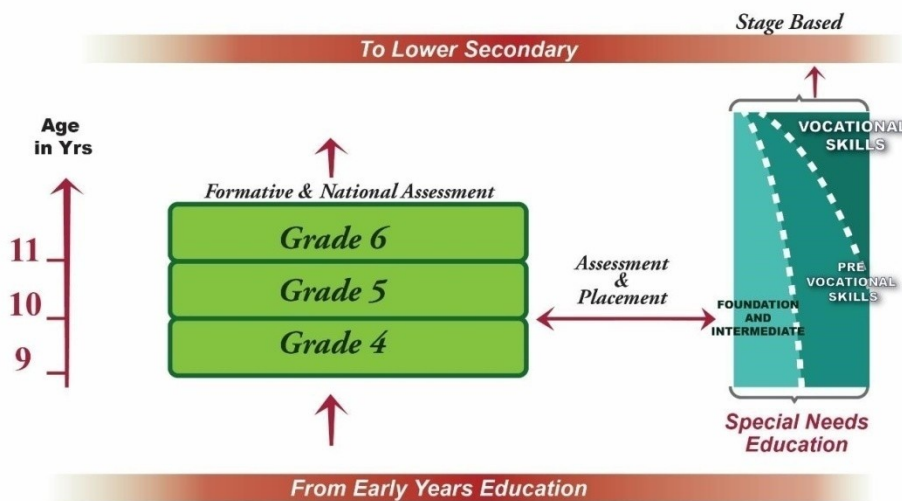


Figure 5: Part of Middle School: Upper Primary

Subjects for Upper Primary

1. English
2. Kiswahili or Kenya Sign Language (for learners who are deaf)
3. Home Science
4. Agriculture
5. Science and Technology
6. Mathematics
7. Religious Education (CRE/IRE/HRE)
8. Creative Arts
9. Physical and Health Education
10. Social Studies

Optional:

11. Foreign Languages (Arabic, French, German, Mandarin)

NB:

- ICT will be cross cutting in all subjects.
- Pertinent and contemporary issues and life skills will be mainstreamed in all Subjects.
- A pastoral program of instruction will be conducted once a week.

TOPIC 6: Secondary Education: Lower Secondary education- subjects, essence statement; Senior school –learning outcomes, subjects and essence statement
Secondary Education

Secondary education is organised into two levels namely, **lower secondary (Grades 7, 8 and 9)** and **senior school (Grades 10, 11 and 12)**.

(a). Lower Secondary

Graduates of primary school Grade 6 shall join lower secondary at **Grade 7**. Lower secondary will expose the learner to a **broad-based curriculum** to enable them to explore their **own abilities, personality and potential as a basis for choosing subjects** according to **career paths of interest** at the **senior school**. At Grade 4 learners will be introduced to the optional subjects offered at upper primary so as to make informed **choices** at Grade 7. Learners in **lower secondary** will undergo a **rigorous career guidance programme** and be exposed to the related subjects to enable them to make **informed choices** as they transit to **senior school**.

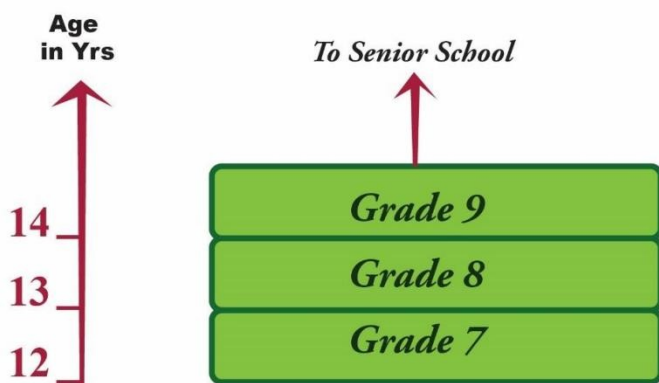


Figure 6: Structure of Lower Secondary

Subjects for Lower Secondary School

The Subjects are in two categories; **core** and **optional subjects**. At this level, a broad-based curriculum is offered to enable the learner **to explore their own interests and potential as a basis for choosing subjects according to career paths of interest** at senior level.

Core Subjects

Learners will be required to take the 12 core subjects provided.

1. English
2. Kiswahili or Kenyan Sign Language for learners who are deaf

3. Mathematics
4. Integrated Science
5. Health Education
6. Pre-Technical and Pre-Career Education
7. Social Studies
8. Religious Education – learners choose one of the following:
 - i. Christian Religious Education
 - ii. Islamic Religious Education
 - iii. Hindu Religious Education
9. Business Studies
 10. Agriculture
 11. Life Skills Education
 12. Sports and Physical Education

NB: ICT will be a delivery tool for all Subjects.

Optional Subjects

Learners are provided with an opportunity to choose a minimum of **one** and a maximum of **two** subjects according to personality, abilities, interests and career choices from the list provided.

1. Visual Arts
2. Performing Arts
3. Home Science
4. Computer Science
5. Foreign Languages:
 - i. German
 - ii. French
 - iii. Mandarin
 - iv. Arabic
6. Kenyan Sign Language
7. Indigenous Languages

Essence Statements for Lower Secondary School

The following are statements that give the rationale for inclusion of the subjects in lower secondary. The statements also provide a brief overview of the subject and the subject expectations.

English

The Constitution of Kenya 2010, accords English the status of one of the official languages while according to the language policy of 1976, it is the language of instruction from Grade four onwards, including colleges and universities. In addition, English is a language of communication at both local and international levels. Those who master English reap many academic, social and professional benefits. In the school setting, success in education will largely depend on an individual's proficiency in English.

By the end of lower secondary level, learners will be expected to have acquired proficiency in English language so as to be able to use it in the study of other subjects and also prepare them for more advanced study of English language and literature at senior school.

The subject will lay a firm foundation for the learners' **efficient** and **effective** use of the English language, both as a communication tool and also as the medium of instruction at senior school. In addition, it will be a stepping stone for the further study of English and/or literature in English.

Kiswahili

Kiswahili is both a national language and one of official languages of the republic of Kenya (Constitution of Kenya, 2010). Because different communities across Kenya use different languages, there is a need for a unifying language. Kiswahili is this language, and should be learned by all citizens. The language has been recognized as the unifying language in the East African community making it the lingua franca of the region. The language is also one of the official languages of the African Union (AU).

At lower secondary level, both grammar (lugha) and literature (fasihi) will be offered as a single subject. The subject will give the learner an opportunity to further practice language skills of listening, speaking, reading and writing together with the grammar already acquired at primary level.

The subject will prepare the learner for further study in communication in Kiswahili at senior school.

Kenyan Sign Language

Mathematics

Mathematics is always around us in our everyday life. It is recognized as a very important subject since it plays a key role in what we learn (Wadsworth, 1996). It deals with skills areas such as shapes, quantities and arrangements as well as money. At this level mathematics will equip learners with computation and problem-solving skills as they build on competencies acquired at upper primary level. This is mathematics that is applicable to real life situations and everyday use. As a subject mathematics supports other subjects such as the **sciences, computing, business studies, accounting, and geography**. As such mathematics will equip learners with the prerequisite knowledge, skills and attitudes to specialize in the science, technology, engineering and mathematics (STEM) pathway at senior school.

Integrated Science

Integrated science is a subject that combines concepts of physics, chemistry, biology and environmental studies. This subject provides the learner with an opportunity to gauge his or her ability in science in preparation for studying the same at higher levels and even choosing it as a career. This is in tandem with the dictates of Kenya Vision 2030 that emphasize Science, Technology and Innovation (STI) as one of the key drivers of the economy towards industrialisation of the country by the year 2030.

Health Education

The Government of Kenya is committed to the improvement of the health and welfare of its citizens. Several government documents such as The Kenya Demographic Health Survey, 2014 and the Kenya National Bureau of Statistics Report, 2014 have indicated the need for equipping Kenyans with information and **instilling positive attitudes** towards the promotion of health and prevention of illnesses to enable them to contribute to and participate in nation building. The introduction of health education in the curriculum was also highlighted by many respondents as indicated in the Needs Assessment Survey (KICD, 2016). Health education will therefore focus on promoting **healthy living practices** and **preventing diseases and disorders**.

As a discipline at lower secondary level, health education covers **personal** and **environmental** hygiene, food and drink choices, food safety, communicable and non-communicable diseases, nutritional and lifestyle diseases and disorders, **drug and substance use and abuse**, laundry work, care of the home including basic furniture, equipment and materials. Learners will also be equipped with basic first aid knowledge to enable them to handle common accidents.

Through inquiry-based learning approaches learners will be exposed to hands-on teaching and learning activities to enable them practice the principles of good health.

Pre-Technical and Pre-Career Education

Pre-technical and pre-career education is a subject that introduces the learner to the technical, engineering and career and technology studies (CTS) that are tracks within the science, technology, engineering and mathematics (STEM) pathway. It builds on the competencies acquired in science and technology at upper primary school. The subject equips the learner with foundational knowledge, skills, attitudes and values that are a prerequisite for the learner to specialize in engineering and technical and career studies at senior school level. The subject offers skill areas such as metalwork, woodwork, electricity, aviation technology, building construction, drawing and design, power mechanics, leatherwork, culinary arts, hair-dressing and beauty therapy, marine and fisheries, manufacturing, and media technology. Other considerations will include the choice of career path, the personality and the level of performance of the learner.

Social Studies

The social studies subject will prepare the learner to be an active, informed and responsible citizen; a citizen who is willing and able to take responsibility for himself or herself and fully engage in governance processes. Social studies, therefore, provide learners with opportunities to develop collaboration, critical thinking and problem solving, imagination, citizenship, learning to learn and self-efficacy competencies. Social studies will prepare the learner for the social science pathway in senior school. The subject will provide the foundation for the learner to pursue further education in education, law, social work, sociology, psychology, political science, and geography and also prepare the learner to further his or her career in fields such as community development, diplomacy, local and international NGOs, regional and international organizations, anthropology, archaeology, and geology.

Christian Religious Education

At lower secondary level, this subject builds on the competencies introduced at upper primary which focus on **God's self-revelation** through Jesus Christ. **Moral and ethical values** are taught in a more detailed way. Learners will be provided with opportunities to practice their faith by applying **Biblical principles to daily living, such as love for God, self and others**. The knowledge, skills and attitudes gained here will help the learner to cope with the challenges of life.

Hindu Religious Education

Islamic Religious Education

The teaching of Islamic Religious Education (IRE) is aimed at enabling the learner to acquire Islamic knowledge, moral values and life skills, and think critically to make appropriate decisions in life in accordance with Islamic principles and teachings.

Business Studies

Business studies at lower secondary level will be offered as an integrated subject laying emphasis on entrepreneurship, financial education, record keeping in business and ICT in business.

Agriculture

Kenya requires a competent workforce with the requisite knowledge, skills and attitudes to engage in its **agro-based economy**. The country envisages growing and developing the economy through agro-based industrial development (Kenya Vision 2030). Agriculture is an applied science focusing on crop production and livestock production, as well as entrepreneurial components and related agricultural production technologies. The curriculum will prepare the learner for the immediate application of agricultural skills to solve contemporary food security challenges and will also help to develop the appropriate attitudes towards farming which are applicable in their social contexts. The subject forms foundational competencies that are applicable in contemporary life and are a basis upon which to conceptualize a career in agriculture.

Life Skills Education

Teaching of Life Skills Education at lower secondary of education is aimed at enhancing; the knowledge on and **appreciation of oneself** as well as the need to value and promote good **interpersonal skills**. The need for

possession and application of LSE is theoretically supported by Vygotsky's Social-cultural development Theory that presupposes that learning takes place when learners interact with each other.

Sports and Physical Education

Visual Art

Visual art refers to two or three-dimensional art that appeals primarily to visual sensory perception. The subject aims at enabling the learner to develop a deeper understanding and appreciation of **artistic and cultural** expression through two or three-dimensional artworks. Through creativity and collaboration, the learner will be equipped with knowledge, skills and attitudes that will help them create artworks both for aesthetic and functional purposes. This subject will lay a foundation for visual art at senior school.

Performing Arts

Performing arts will offer the learner a platform to **use musical instruments, voice and movement for artistic expression**. The curriculum will **integrate key subject matter in music, dance and drama** in order to allow the learner to **explore and discover** their own **abilities and interests**. This is in line with the **multiple intelligence theory of Dr.-Howard Gardner** which indicates that learners possess **different kinds of minds** and therefore **learn, remember, perform, and understand in different ways**.

The curriculum in this area is aimed at enabling the learner to develop an understanding and appreciation of artistic and cultural expression through **music, bodily movement, choreography, acting, improvisation, interpretation of contextual drama, scripting, elements of stage techniques, creative writing, and public speaking, whilst also using a variety of texts and contexts**. Through performing arts, the learner will develop the ability to **express ideas and feelings artistically**.

Learners should be allowed opportunities to **watch plays**, visit the national theatre or any other drama activities in the neighborhood, engage in the **National Drama Festival** or be allowed to hold a school or **interschool** drama festival. The curriculum will lay a foundation for the learner who would wish to **pursue drama or music and dance** in the talent pathway at senior school.

Home Science

Home science is an applied and integrated science that aims at **improving the quality of life** for the **individual, the family and the community**. According to the Needs Assessment Survey 2016, respondents indicated that home science should be emphasized in the reformed curriculum and made compulsory (KICD, 2016). The National Education Sector Plan (NESP) 2015 has shown that the learning activities that best expose a learner's abilities included home science. Home science has therefore been included in the lower secondary curriculum.

Home science as a discipline covers aspects of caring for self and the family, foods, nutrition, textiles, clothing, housing the family, home care, laundry work, maternal health-care and consumer education. It forms the foundation for learners who want to pursue health education, foods and nutrition, home management, costume and fashion design or culinary arts as subjects at senior school and their related careers at tertiary level. Learners who would want to pursue foods and nutrition, home management, fashion and interior design are encouraged to opt for the subject at lower secondary level.

Computer Science

Computer science is the study of computers and algorithmic processes, including their principles, their hardware and software designs, their applications, and their impact on society. This discipline is deeply concerned with how computers and computer systems work, and how they are designed and programmed.

Foreign Languages

The business world of tomorrow needs individuals with the requisite skills in a foreign language and who can work in a culturally diverse environment. Building a learner's foreign language competency is one of the ways of ensuring they are competitive on a global scale.

The foreign language curriculum will progressively develop in the learner the ability to **communicate** in the target language in defined contexts. Emphasis will be on the functional use of language. It is envisaged that this will enable the learner to acquire the necessary oral and written communication skills to operate in diverse situations.

Learners will be provided with opportunities to develop public speaking and creative writing skills through collaborative activities designed to elicit critical thinking as well as sharpen creative abilities.

Indigenous Languages

The Constitution of Kenya commits the Government to **promote** and **protect** the **diversity** of languages of the people of Kenya and promote the development and use of the indigenous languages. In addition, **a people's culture** is best passed on through their **language**. In addition, mother tongue, like any other language, is central to the **success or failure** of education and development programs.

According to Piaget, learners at this age develop the ability to think about abstract concepts. The subject in indigenous languages will therefore expose the learner to **abstract ideas** and appropriate hypothetical and deductive reasoning. The **confidence** gained will motivate the learner to engage in the active process of learning to discover principles, concepts and facts for themselves, as suggested by social constructivist scholars. In addition, the potential for the learner to become **proficient** in the language of their choice, and ensure **effective communication and educational** progress will be enhanced.

Learners will be provided with opportunities to participate in programs and visit Bomas of Kenya, visits to vernacular radio and television stations to help them gain **confidence** and **expose** them to **possible future careers**.

ICT

Information Communication Technology (ICT) deals with the purposeful application of computer systems to solve real-world problems, including issues such as the identification of business needs, the specification and installation of hardware and software, and the evaluation of usability. The learner should be able to understand and play an active role in the digital world that surrounds them, not to be passive consumers of an opaque and mysterious technology. In a world suffused by computation, every school-leaver should understand computing.

(b). Senior School

Senior School comprises **three years of education** targeted at learners in the age bracket of **15 to 17 years** and **lays the foundation for further education and training at the tertiary level and the world of work**. It marks the end of **Basic Education** as defined in the Education Act, 2013. Learners exiting this level are expected to be "**empowered, engaged and ethical citizens**" ready to participate in the **socio-economic development** of the nation.

The learner entering this level shall have had opportunities at lower secondary to explore their own **potential, interests and personality** and is therefore ready to begin **specialization** in a career path of choice. The specialization entails choosing to pursue studies in one of the three pathways available in senior school. He or she can choose the **Arts and Sports Science, Social Sciences** or **Science Technical Engineering and Mathematics (STEM)** pathway.

Schools will be specialized institutions that will provide **opportunities** for learners to focus in a field of their **choice** as well as **form a foundation** for further education and training and gaining **employable skills**. Senior schools will be required to therefore organize **open days** to enable learners and parents to glean (gather) the information necessary for effective decision-making. Additionally, a robust parental empowerment and engagement program will be necessary to strengthen the involvement of parents in this process.

Learning Outcomes for Senior School

By the end of senior school, the learner should be able to:

1. Communicate effectively and utilize information and communication technology across varied contexts.
2. Apply mathematical, logical and critical thinking skills for problem solving.
3. Apply basic research and scientific skills to manipulate the environment and solve problems.
4. Exploit individual talents for leisure, self-fulfillment, career growth, further education and training.
5. Uphold national, moral and religious values and apply them in day to day life.
6. Apply and promote health care strategies in day to day life.
7. Protect, preserve and improve the environment for sustainability.
8. Demonstrate active local and global citizenship for harmonious co-existence.
9. Demonstrate appreciation of diversity in people and cultures.
10. Manage pertinent and contemporary issues responsibly.

Pathways

The provision of pathways at senior school is based on the aspiration that all learners can be successful in life. Success comes in many forms and there are various pathways that lead to it (NESP 2, 2015). It is therefore imperative for the senior school structure to facilitate learners to pursue their own interests and fulfil their potential in line with the curriculum reforms’ mission of „**nurturing every learner’s potential**“.

The Basic Education Act, 2013 (54(b)) states that **all** children who have undertaken a full subject of primary education shall be eligible for admission to a **secondary school regardless of their scores**. Despite this requirement, many learners **drop out of the education system**.

In Kenya, each senior school is expected to make informed decisions with regards to the pathway of choice based on the requisite infrastructure that would ensure development of the competencies identified in that pathway. The three pathways are: (1) Arts and Sports Science (2) Social Sciences (3) Science, Technology, Engineering and Mathematics (STEM) as illustrated in Figure 8.

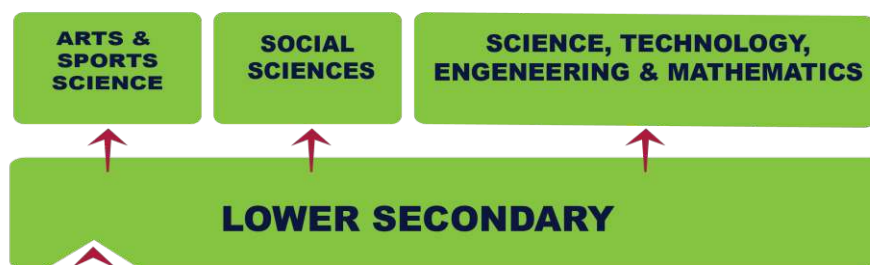


Figure 7: Pathways after Lower Secondary

Within the three pathways there are various tracks. Schools can also **decide** to offer one or more track in the pathway depending on the ability to acquire the infrastructure necessary for acquisition of the identified competencies. The tracks are shown in Figure 9.

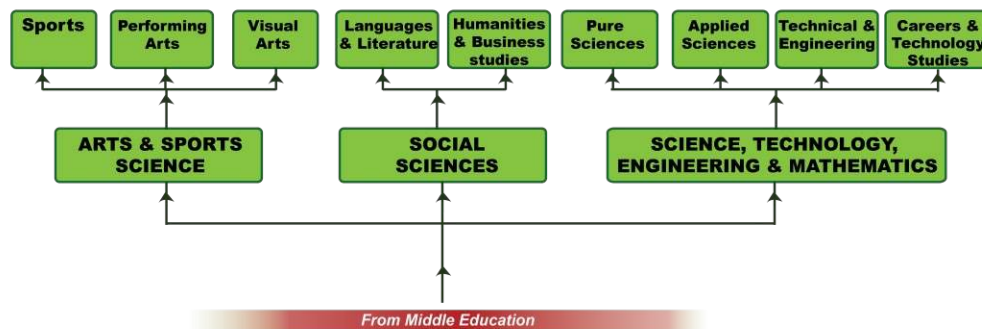


Figure 8: Tracks within the Pathways

TOPIC 7: Instruction for learners with special educational needs; Pertinent and contemporary issues in Competence Based curriculum ; Activity planning for CBC instructional process

Education for Learners with Special Educational Needs

Learners with special educational needs, like any other learner, have potential that needs to be nurtured. The special needs education curriculum model illustrated below indicates curriculum provision for learners with special needs.

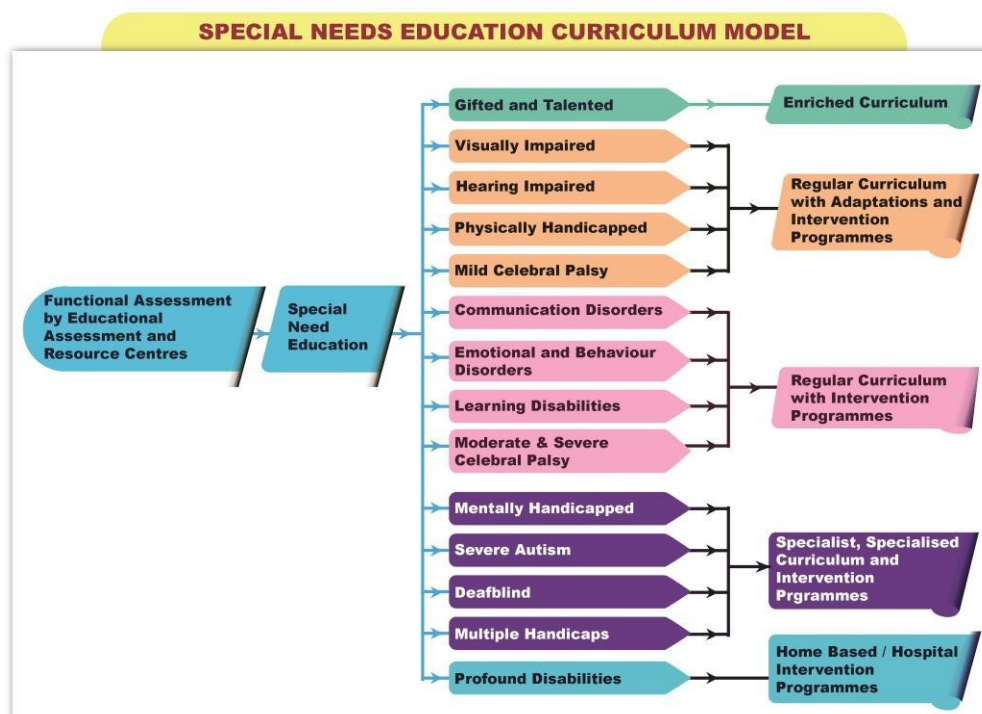


Figure 9: Special needs curriculum model

The special needs education curriculum framework illustrated above shows that education of these learners starts with **functional** assessment. Functional assessment determines the **placement** of the child and the kind

of **intervention measures** that would **best meet the child's needs and abilities**. The child may be placed in a **special school, special unit, regular school with support or home and hospital based programme**.

There are learners with special needs who may follow the **regular curriculum** with **adaptations** and or with **enrichment** and **intervention** programmes. There are other learners with special educational needs who may not follow the regular curriculum and therefore, will follow the specialist, specialised syllabuses and intervention programmes including home and hospital based programmes.

Curriculum Provisions for Learners with Special Needs

Curriculum provisions for learners with special needs shall be in two (2) modalities as illustrated below:

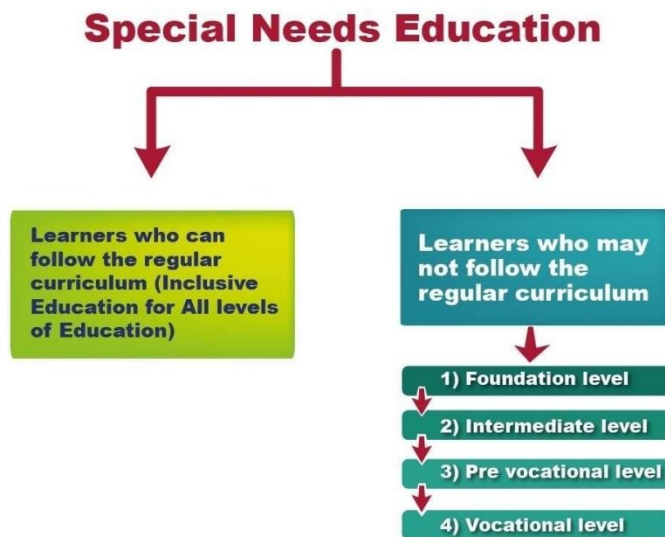


Figure 10: Special needs Education Modalities

1. Learners with Special Needs Who Follow the Regular Curriculum

Some learners with special needs may follow the same curriculum as learners without identified special needs. However, for some of these learners to access the regular curriculum, adaptation and modification may be necessary. Adaptations may include the substitution of curriculum content, removal of some content area, and the adaptation of teaching and learning strategies, resources and assessment. The curriculum may also be enriched in content for learners who are Gifted and Talented. This may be done by providing additional and advanced content, methodology, resources, time and assessment.

Learners with special educational needs who may follow the regular curriculum may include those with:

- i. Visual Impairment
- ii. Hearing Impairment
- iii. Physical Handicap
- iv. Mild Cerebral Palsy
- v. Learning Disabilities
- vi. Autism
- vii. Emotional and Behavioural Difficulties
- viii. Communication Disorders and the
- ix. Gifted and Talented

2. Learners with Special Needs Who May Not have their needs met from just following the Regular Curriculum

Learners with special needs who may not have their needs met from just following the regular curriculum may include those with:

- i. Mental Handicap
- ii. Deaf blindness
- iii. Severe Autism
- iv. Severe Cerebral Palsy
- v. Multiple Handicaps
- vi. Profound Disabilities

The purpose of education for these learners is mainly to enable them **acquire skills** that may not be taught in the regular education curriculum to enable the learners become independent individuals. In order to facilitate this independence, the learners shall follow different levels of education. Their curriculum for these levels shall be **stage based rather than age based**. These categories of learners require **individualized learning**. Teachers are expected to develop Individualized Educational Programme (IEP) for each learner. Transition from one level to another should depend on **demonstration of outcomes at a given level**.

Pertinent and Contemporary Issues in the Curriculum

The Kenya Competence Based Curriculum (KCBC) will ensure that Pertinent and Contemporary Issues (PCIs) facing society are included in the curriculum and the curriculum support materials.

Currently there are **six broad areas of pertinent and contemporary issues** as follows:

Broad Area	Pertinent and Contemporary Issue
1. Global Citizenship	Peace education, integrity, ethnic and racial relations, social cohesion, patriotism and good governance, human rights and responsibilities, child's rights, child care and protection, gender issues in education.
2. Health Education	HIV and AIDS Education, alcohol and drug abuse prevention, life style diseases, and personal hygiene, and preventive health, common communicable and chronic diseases.
3. Life Skills and Values Education	Life skills, values, moral education and human sexuality, etiquette.
4. Education for Sustainable Development (ECD)	Environmental education, disaster risk reduction, safety and security education (small

	arms, human trafficking), financial literacy, poverty eradication, countering terrorism, extreme violence and radicalization, gender issues and animal welfare.
5. Learner support programmes	Guidance services, career guidance, counselling services, peer education, mentorship, learning to live together, clubs and societies, sports and games.
6. Community Service Learning and Parental Engagement	Service learning and community involvement, parental empowerment and engagement.

Before Early Childhood Education

Parents will be sensitized on the following points:

- Parental roles and responsibilities according to the constitution and other national and international legal instruments. It is important that the child is given proper care and protection to experience normal patterns of growth and development. Basic provisions include tender loving care, nutrition, clothing, shelter and access to good health.
- The role of other state and non-state agencies involved in the welfare of children such as the police, probation officers, social workers and religious institutions
- **Early identification** of special educational needs and prompt **referral** for prompt **intervention** to **mitigate** the **disability** to avoid further **delay** or **distorted** development.
- Providing a safe, healthy environment to enable a child to be creative and innovative thus enhancing the child's stimulation and ability to manipulate the environment.
- The importance of creating a **positive family culture** that supports the national **values** where values systems and social skills are upheld (**communication, care, kindness and empathy**).
- The need to equip children with **basic self-help skills** such as **toilet training, eating and table manners/etiquette, washing and dressing**.
- The fact that children need to **develop fine motor skills** so they can do activities such as writing, doing up buttons and cutting with scissors.
- Preparing children for **pre-school psychologically**, provision of resources such as school uniforms, bags and toys.
- Reading to children starts them on the road to developing literacy skills, comprehension and **early reading techniques**. It can also be an **enjoyable bonding experience**.
- The importance of seeking information from the **nearest education office** and **schools** themselves about the formal, informal and non-formal aspects of the child's potential school.

Middle Level

For effective parental engagement in learning, parents should be engaged with MoE, KICD and the school. Parents should be aware of the following points:

- Parents should be encouraged to continue engaging in their children's general wellbeing and education as stipulated in the earlier level of education.
- Appreciate that children are natural explorers, and hence help them to develop a life-long love of STEM (Science, Technology, Engineering, and Mathematics) simply by encouraging their curiosity and having fun together investigating the world around them.

- A child might be interested in some out of school activities, such as sport, music and various clubs – these extracurricular activities can enrich their learning within school hours.
- Encourage children to engage in organized school activities such as camping. This will enhance a child's social skills, such as teamwork, sharing and peer interaction.
- Encourage children to keep a diary or journal to capture their feelings, thoughts and experiences in and out of school.
- Develop and constantly communicate their high but realistic expectations of their children. This can enhance a **child's self-esteem** and achievement as children will tend to strive to reach these expectations.

Parental Engagement in Senior School

Parents will need to be engaged in the following strategies and activities:

- Helping young people to think about their **future educational and career pathways**, do they want to initially pursue a **vocational pathway** or **head to university**?
- Establishing which particular careers or pursuits they are **passionate** about and whether their **choice** is in tandem with their **personality, abilities, traits** and if not **seek** and **receive** support to better develop these **skills** and **refocus** on allied more appropriate career choices.
- Nurturing their children's informed **self-esteem**. This will help teenagers develop the **confidence** and **resilience** they need to succeed at school.
- Encouraging young people to attend school, since participating in school every day gives teenagers the **best chance of achieving their goals**. A student's level of school attendance is a major influence on their achievement.
- **Connecting** with teachers to have a better understanding of the work the teenager does at school and what is expected of them.
- Encouraging their children to develop **realistic**, but high expectations of all their areas of possible **achievement**. Talking positively about it with them and helping them know their parents believe in their capability. Parental expectation of teens is linked to academic achievement.
- Helping young people to appreciate the need to have a **mentor**. A mentor is a **positive role model** who can **help guide** a student through school and provide great support for their learning.
- The Institute will ensure that parental empowerment and engagement in learning is given the emphasis it deserves.

Careers advisers and class teachers will use this information to develop a portfolio, which the learner will take with them as they leave one learning level and move to the next.

TOPIC 8: Assessment; Guiding principles of Competency based Assessment; Assessment instruments for Formative Assessment;

Assessment

The Basic Education Curriculum Framework recognises the importance of assessment, both as a tool of learning and as a means of establishing the **extent** to which the **desired learning outcomes** have been developed.

“An assessment is a **machine** for **reasoning** about what students **know, can do** or have **accomplished** based on a handful of things they say, do or make in particular settings.” (Mislevy et al, 2003)

Education assessment is the **process** of **determining** the **extent** to which learners have **acquired specified knowledge, skills, values, attitudes, abilities** and **competencies**. The term "specified" means that they have been pre-determined before the subject begins. Assessment includes methods that teachers use to **determine** what learners **know and what they can do**. A good assessment also defines the **size** and **nature** of the **learning gap**.

Purposes of Assessment

The aim of assessment is to establish the **extent** to which the learner has **acquired the expected competencies** with a view to **informing interventions** for further **acquisition** and **mastery** of expected competencies. Assessment helps to **diagnose** and **monitor** the progress of a learner, and provides **feedback to learners, parents, teachers and curriculum designers and implementers**. This helps them **plan** learning in terms of **what the learner needs in order to continue advancing** and **fill gaps in understanding or performance**. It also provides **guidance** on the **selection of future subjects, certification and promotion to the next progression level**.

In every curriculum implementation, assessment is expected to assess the **extent** to which **learning objectives** have been achieved. The assessment provides the basis for **advising** teachers on **pedagogical methods** and deliberate **intervention**.

Assessment focuses on the extent to which **competency** (the **ability to carry out a certain task**) has been acquired as opposed to laying emphasis on the acquisition of knowledge of the concepts. In most cases assessment is organised in a national or classroom level. The assessment needs to use a variety of ways to collect information about a learner's learning and progress in all subjects. The collection of a learner's information should be a continuous process and should be recorded **efficiently** and **effectively**. The teacher should give importance to **each learner's way of responding and learning** and **the span of time** he or she takes to do so. The teacher should provide **timely** and **effective feedback** that will lead to positive **action** and help the learner.

Competency Based Assessment

Competency based assessment can be described as determining the **capability** to **apply** a set of related **knowledge, skills and abilities required** to **successfully** perform critical work **functions or tasks** in a defined setting.

Competency based assessment is a process whereby the learner is given an **opportunity** to put into **practice** what they have learned. It is a collection of evidence demonstrating **how** a learner can perform or behave according to a specific standard. The learner can be provided with a challenge and then be allowed to show how to **resolve the problem**.

It is a key element of the **on-going process of continually building knowledge and skills** that provides a **roadmap** for developing learners of their **future roles** based on their **acquired and developed knowledge and skills**.

The centre of focus in competency-based assessment is that it is based on **actual skills and knowledge** that a person can **practically** demonstrate. Evidence is used by **assessors** to make a judgment about whether an individual is competent. The assessment must be **valid, reliable, flexible and fair**.

Assessment of competencies is **criterion referenced**, as compared to assessment of an objective based curriculum. Bill Huitt differentiates between **criterion** and **norm referenced assessment** based on **purpose, content, item characteristics and score interpretations** (Huitt, 1996). Whereas criterion referenced assessment focuses on determining whether each learner has achieved **specific skills or concepts**, norm referenced assessment focuses on **ranking learners** with respect to the achievement of others in broad areas of knowledge.

Individuals are considered **competent** when they are able to **consistently apply** their **knowledge and skills** to the **standard of performance required** in the school. In mathematical literacy for instance, the learner's capacity to **analyze, reason, and communicate ideas** effectively by **posing, formulating and solving** mathematical problems in a variety of domains and situations is paramount.

Under the current curriculum reforms, competency-based assessment is a key **reformation** which will facilitate the **adoption of formative assessment practices** that promote **diagnostic approaches** which will in turn enhance learning and improve learning outcomes. This is a departure from current assessment practices that **seek to compare learners with each other** (assessment with reference to a normal distribution, or norm referenced) and is a shift towards assessment practices that seek to collect **evidence** and **make judgments** on the **extent** and **nature** of **progress** towards a **learner's achievement**.

Competency based assessment provides a framework of knowledge and capabilities seen as appropriate to a particular level.

Guiding Principles of Competency Based Assessment

The principles guiding for competency-based assessment are explained below:

a). **Validity**

This is the **degree** to which the scores obtained from assessments are used according to the **intended purpose** of the assessment. Evidence should be collected in a **variety of contexts** and on a **number of occasions** and the assessment process and materials should assess **everything** they claim to. The assessment Score must reflect the **learner's actual ability** in the assessed criteria.

b). **Reliability**

This refers to the **consistency** of the interpretation of **evidence** and **results** of the assessment. The assessment tasks used should be of **similar demands** and provide **similar opportunities** to exhibit all the intended competencies being assessed. The instrument used for **administering** and **scoring** should be **interpreted** in the **same way** by the assessors.

c). **Fairness**

This refers to how the assessment **conditions** are applied to **all** those being assessed. It aims at ensuring that the assessment process **does not disadvantage any learner** and **learning outcomes** can be achieved through a **range of strategies**. Assessment should **reflect** an **inclusive** view of **society** and respect for diversity. Assessment tasks should have a **balance** in relation to **gender, faith, cultural** and **socio-economic factors**.

d). **Flexibility**

This is the process of ensuring the skills, knowledge, abilities and values can be demonstrated in a **variety** of ways that are suitable to the school.

e). **Access**

This refers to the provision of assessment for learners with **disabilities** by making arrangements for them to demonstrate their **competency levels**.

Formative Assessment (*Assessment for Learning*)

It is carried out **during** the **learning process** to provide **immediate feedback** to both the learner and the teacher. In the classroom, the assessment should help the students to learn and should result in actions that are successful in **closing the gap** between the **current** and **desired achievement levels**. All students come to class with some learning gap – some have few while others have many – and the teacher **adds value** to the students when they leave the class with **fewer gaps** than when they entered.

Formative assessment uses both **formal** and **informal methods** to check whether learning is taking place.

Formative assessment is used for the **diagnosis of learning gaps, for corrective measures, retesting, feedback of evidence to teachers, and learners' self-evaluation**. The assessment should focus also on

abilities, attitudes and aptitudes that do not manifest themselves in the **form of the written word**. This aims at assessing a learner's development in all areas of learning.

In this scenario, the **goal** of formative assessment is to **monitor** student learning to provide **ongoing feedback** that can be **used by teachers to improve pedagogical strategies** and by students for **improvement** in their learning.

The overall assessment should be followed by descriptive remarks by the class teacher or the teacher responsible for the subject about positive and significant achievements, avoiding negative assessment even by implication. Formative assessment can be carried out using multiple modes of assessment.

Summative Assessment (*Assessment of Learning*)

Summative assessment takes place **after** the learning has been **completed** and provides **information** and **feedback** that **sums up the teaching and learning process**.

Synoptic assessment encourages students to show **their ability to integrate and apply their skills, knowledge and understanding across the breadth and depth of the subject**. It assesses the student's **capability of applying the knowledge and skills gained** in one part of the subject to other parts of the subject, or across the subject as a whole. This competency constitutes the **abilities of sound reasoning, decision making, reflective thinking, curiosity and creativity, and managing complexities and ambiguities**. This **holistic** learning experience is more meaningful to a learner as they appreciate that knowledge and skills in various parts of a subject or across subjects are not entirely independent of each other.

Purpose of 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 learning cycle – by comparing it against some standard or benchmark*. In Kenya, summative assessment will be at the end of **upper primary education, lower secondary education and senior school**.

Summative assessment is used for **placement** and **certification**. It is used to record a judgment of the competency or performance of a learner. The results are also used for the **ranking** or **grading** of learners and for deciding on **progression** into the **next level of education**.

Assessment as or for Learning

The emphasis and focus is to **foster skills and habits** such as **self-assessment, self-monitoring, and self-correction** among students. Teachers may refer students to **their personal goals or external standards** as references for **self-assessment**. They may also facilitate **self-assessment** among students by introducing the use of **self-reflection questions** and **exemplary work** for students' consideration. It fosters **self-assessment** among students and **promotes self-awareness of strengths and weaknesses** in their learning.

Assessment Instruments for Formative Assessment

- Observation, ✓
- Anecdotal Records ✓
- Checklists ✓
- Checklists, Rating Scales and Rubrics
- Homework ✓
- Journaling
- Observation schedule ✓
- Portfolio ✓
- Profiling ✓
- Progress Report Card ✓
- Project Method ✓
- Question and Answer
- Questionnaires ✓
- Rating Scales ✓
- Rubrics
- Written Continuous Assessment Tests ✓

Competencies to be Assessed

- a) **Knowledge and understanding:** Does the child **demonstrate** an **understanding** of the subject? Has the **child mastered the key subject concepts**?
- b). **Practical skills:** How does the child **perform** on **aptitude** (natural ability to acquire knowledge/ skill or talent) and **practical situations**?
- c). **Attitude and values:** How do the child respond to a **task** or a **situation**? What is the child's behavior like in a range of situations and contexts?
- d). **Generic competencies:** What are the **steps** taken to perform a given task? What is the **reasoning** behind them? How does the child overcome each challenge?

Performance Indicators

A performance indicator or **key performance indicator** is a type of **performance measurement**. The focus of assessment should be on knowledge and understanding, aptitude and practical tests, attitudes and values (behavior) and generic competencies guided by specific indicators. The following indicators will be used in assessment:

- a) **Knowledge and understanding** will have indicators such as *correctness of answers, coherence of ideas, and logical reasoning*.
- b) **Practical skills** will have indicators such as *accuracy, using appropriate methods, quality product, speed and efficiency, and coherence*.
- c). **Attitude and values** will have indicators such as *approach to a situation, appreciation of the task given, impression of a situation, manipulation, reasoning, persistence, and tolerance*.
- d) **Generic competencies** will have indicators such as *reasoning, manipulating, presenting, value judgment, and applying knowledge*.

Teacher Capacity for Formative Assessment

In order to develop ever more **effective** and **efficient** ways of **assessing** and **diagnosing** the learning needs of individual learners, it is important to develop the skills of teachers in formative and continuous assessment.

The competency-based curriculum will focus on the development of the learner as a **customer** – not on the teacher or the syllabus or the text book. As such there is a need to re-orientate and develop teachers to focus on the learner and what has been learned as opposed to the teacher and what has been taught.

KICD and other stakeholders shall lead the development of robust, statistically sound, and secure competency judgments, and through **professional development** ensure that learners’ competencies are assessed and developed and that these assessed levels of competency have a local, national and international outlook.

Empowering Teachers on Assessment for CBE

All teachers should be trained in the approved methods of collecting, recording, compiling and interpreting evidence of learners’ growth and progress. There is a need to understand and own the paradigm shift in authentic assessment where the teacher's involvement is crucial. They must embrace assessment of cognitive, psychomotor and affective domains and be well grounded in the principles of assessment such as **validity, reliability, fairness, accessibility and flexibility**.

Grading of Competency Based Assessment

The transition from through basic education levels should be seamless. The first summative assessment will be done at the end of upper primary, the second at end of lower secondary and the third at the end of secondary education. The final grade will be achieved by adding the cumulative scores from formative assessments at each stage and the score from the national assessment body.

Proposed Grading System

Mark Range	Grade	Quality of Grade	Competency
80 % and above	A	Excellent	Competent
60-79 %	B	Very Good	
50-59 %	C	Good	Fairly
40-49 %	D	Sufficient /Pass	Competent
Below 40 %	E	Not Sufficient /Fail	Not Yet Competent

Excellent

This is a standard of excellence level. Descriptions should indicate that all aspects of competencies **exceed grade level expectations** and show **exemplary** performance or **in-depth understanding**. Learning goals are met in a **comprehensive way**.

Very Good

This is **approaching** the standard of **excellence** level. Descriptions should indicate **some** aspects of work that exceed grade level expectations and demonstrate solid performance or understanding. Learning goals are met in a **practical and thorough way**.

Good

This **meets** acceptable standards. This level should indicate **minimal competencies acceptable to meet grade** level expectations. Learning goals are met in an **appropriate and reasonable way**.

Sufficient

Performance and understanding are **emerging** or **developing** but there are **some errors** and **mastery is not thorough**.

Not sufficient

This **does not yet meet acceptable standards**. This level indicates what is not **adequate** for grade level expectations and indicates that the student has **serious errors, omissions or misconceptions**. The teacher needs to make **decisions** about **appropriate interventions** to help the student improve.

Assessment at Different Education Levels

Early Years Education

The Early Years Education curriculum is intended to enhance learners' holistic development which entails physical, cognitive, language, socio-emotional, creative, aesthetic, life skills, spiritual and moral aspects. Achievement of optimum child development in these aspects requires regular assessment of each individual learner's progress through a reliable and valid procedure. The tool should also help to identify children with specific developmental challenges that will assist the teacher to put in place the necessary intervention measures. Its intended purpose would be to provide feedback to teachers and parents/guardians and to ensure that by the end of the EYE period, the learner will be ready for formal primary school instruction.

At the preprimary level of early learning, assessment will focus on the acquisition of competencies in relation to **cognitive, psychomotor and affective domains**. The purpose of which will be to ascertain attainment of learning outcomes at the end of each level as defined by the curriculum. The competencies to be addressed at this level will be in the areas of **basic numeracy, basic literacy, creativity, psychomotor skills and environmental skills (social, nature, life skills and science)**.

Middle School

Assessment in middle school plays a critical role in the learning process. Since middle school offers a broad-based curriculum whose purpose is to provide opportunities for learners to explore own abilities, assessment should be designed to provide feedback to the learners on areas of interests and progress made. The learners should also be **gradually** empowered to **develop own assessment tools** depending on own needs. These tools may include portfolios, observation schedules, checklists, journaling and projects.

Senior School

At senior school, formative, synoptic and summative assessment will be at three levels; **skills, knowledge and competency**.

Synoptic Assessment of Skills

Learners will be given opportunities through practical experiences to show their **ability to perform** and **apply** what they have learned in a **real-life situation**. Through observation and use of a checklist the teacher shall assess the learner's progress towards the **achievement** of the desired **skill**.

Formative and Summative Assessment of Knowledge

Bloom's Taxonomy on educational objectives shall provide a way to express learning outcomes in a way that reflects the cognitive skills that can be assessed. The six levels for assessment are:

- a) **Knowledge** – what the learner can **remember**
- b) **Comprehension** – what the learner **understands**
- c) **Application** – how the learner **applies** information
- d) **Analysis** – the learner's ability to **analyze** information
- e) **Evaluation** – the learner's ability to **evaluate** information and situations
- f) **Synthesis** – the learner's ability to **put information together** to create something new

Transition from lower Secondary to Senior School

The learners shall be assessed on their **ability to apply the skills developed and knowledge acquired to address or manage in a contemporary society**. Development of portfolios and continuous assessment grades at lower secondary will contribute in determining their **choice of pathway** at senior school.

Competency Assessment for Learners with Special Educational Needs

The overall goal of inclusive assessment is that all assessment policies and procedures should support and enhance the successful inclusion and participation of all learners vulnerable to exclusion, including those with special educational needs. Inclusive assessment is based on the general principle of celebrating **diversity** by **identifying and valuing all pupils' progress** and achievements in inclusive settings. It involves legislative measures that consider the needs of learners with special educational needs, ensuring that all learners are entitled to take part in the assessment procedures.

TOPIC 9: Capacity Building framework for CBC; Learning outcomes for capacity building for curriculum Implementers; Sustainability of Continuous Professional Development.

Capacity Building Framework for a Competency Based Curriculum

Provision of quality education is to a large extent determined by the **capacity of teachers to interpret and implement the curriculum**. The training will empower them with the necessary skills and capacities to embrace and implement change.

Enhancing Skills for Implementing a Competency Based Curriculum

In line with the basic education curriculum reforms' mission of „**nurturing every learner's potential**“, there is a need to provide **every learner with world class standards in the skills and knowledge** that they deserve and need in order to thrive in the 21st century and beyond. For this to happen, there shall be support and development of **highly knowledgeable, reflective and professional teachers** who have additional enhanced **skills and confidence** in a range of **modern pedagogical tools** such as **coaching, facilitating and mentoring**. These tools will allow teachers to **act as role models for learners, caring for and inspiring every child to achieve their potential**.

Teacher Capacities Required for a Competence Based Curriculum

For the effective delivery of a competency-based curriculum, teachers should have the following **skills, attitudes and capacities**:

1. **Know** how learners **develop and learn**, and **address each learner's background and unique learning needs** to reflect diversity and equity.
2. Respond appropriately to diversity within groups of learners such as socio-economic, racial, cultural, linguistic, physical, mental, intellectual, and gender and orientation differences.

3. Seek information from unique multiple sources, about learners' backgrounds, cultures, skills, language proficiency, interests, attitudes, and individual needs.
4. Utilize knowledge about understanding of the students to plan instruction, set goals, select resources and design learning and assessment tasks.
5. Be committed to establishing and sustaining positive and supportive learning environments.
6. Be committed to establishing and maintaining authentic, effective, respectful and caring relationships with their learners.
7. Value the experiences the student brings to class and allow these experiences to be recognized in the classroom and further each student's development.
8. Value the input and contributions of families, colleagues and other professionals in understanding and supporting each learner's development.
9. Have in-depth content and pedagogical knowledge and use this knowledge effectively to provide learning experiences to improve learner's achievement.
10. Stimulate learner reflection on prior content knowledge, link new concepts to familiar concepts and make connections to student's experiences.
11. Use a broad range of strategies to assist students to be successful.
12. Evaluate and modify instructional resources and curriculum materials for their comprehensiveness, accuracy for representing particular concepts and subjects, and appropriateness for success.
13. Use additional resources and or technologies effectively to ensure accessibility and relevance for all learners.
14. Have a deep knowledge of competence based learning outcomes and supporting resources as well as an understanding of the progression of learning outcomes in relevant disciplines.
15. Realize that content knowledge is not a fixed body of facts but is complex, culturally situated and ever evolving and therefore keep abreast of new ideas and understandings in relevant context areas.
16. Value learner diversity.

Learning Outcomes for Capacity Building of Curriculum Implementers

Training and capacity building sessions will be delivered for teachers to enable them to effectively implement the new curriculum. By the end of the capacity building session, participants should be able to:

- i. Acquire the knowledge, skills and attitudes necessary for curriculum reform.
- ii. Portray competence and positive attitudes.
- iii. Apply innovative pedagogical approaches and models.
- iv. Participate in service learning.
- v. Demonstrate competencies in assessment.
- vi. Conceptualise parental empowerment and engagement.
- vii. Establish communities for learning best practice.
- viii. Be self-reflective, self-improving and supportive learners themselves.

Curriculum reform will lead to a teacher education curriculum which produces teachers who understand and promote inclusivity, and who are endowed with the following capacities:

- a. Identify learners who may be having learning challenges and address their challenge in a timely fashion or make a request for further assessment and support.
- b. Develop ways of teaching that respond to individual differences and benefit all children.
- c. Teach competencies and effectively teach classes with heterogeneous learners.
- d. Become agents of change towards diversity and form the basis for a just, non-discriminatory society.
- e. To establish and maintain schools that educate all children together rather than set up a complex system of different schools „specializing“ in different groups of children.

Community Service Learning

Community service learning is a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen community participation. It is a process of involving students in community service activities combined with facilitated means for applying the experience to their academic and personal development. Teachers should understand the concept and be equipped with innovative approaches towards implementing it.

Parental Empowerment and Engagement

Children start learning even before they start school. Parents, family and care-givers are a child's first and most important educator and can be a positive influence and help their child do well at school. Before children start formal learning, parents require education and useful information to assist them to better engage with their child's learning. Parents also require empowerment and opportunities to get involved in their child's learning throughout schooling, especially at the basic level of education. When parents are involved in their children's learning, it can have very positive impact on education outcomes. Teachers should have the skills required for creating strong partnerships with parents.

Differentiated Learning

Differentiating learning means that the teacher observes and understands the differences and similarities among students and uses this information to plan learning. Listed below are of some key principles that form the foundation of differentiating instruction (Robb, 2013).

Ongoing, formative assessment: Teachers continually assess to identify students' strengths and areas of need so they can meet students where they are and help them move forward.

Recognition of diverse learners: Students have diverse levels of expertise and experience with reading, writing, thinking, problem solving, and speaking. Ongoing assessments enable teachers to develop differentiated lessons that meet every student's needs.

Group Work: Students collaborate in pairs and small groups whose membership changes as needed. Learning in groups enables students to engage in meaningful discussions and to observe and learn from one another.

Problem Solving: The focus in classrooms that differentiate learning is on issues and concepts rather than "the book" or the chapter. This encourages all students to explore local national and global issues and expand their understanding of key concepts.

Choice: Teachers offer students choice in their reading and writing experiences and in the tasks and projects they complete. By negotiating with students, teachers can create motivating assignments that meet students' diverse needs and varied interests.

Communities of Practice

Teachers as members of a community of practice will be guided to interact regularly and build relationships that enable them to learn from each other. They should exhibit the following behaviours:

- Engage in joint activities and discussions and help each other, sharing not only information but also transparent and consistent values and aims in a supportive school culture.
- Develop a shared repertoire of resources including experiences, stories, tools, and ways of addressing recurring problems.
- Aim at generating and sustaining professional development and interaction, so that teaching becomes less of an isolated and isolating experience, this can be aided by getting students to talk openly about their own learning.

Sustainability of Continuous Professional Development

The proposed modes of professional development to ensure sustainability include the following:

- **School based capacity building** will adopt mixed method approaches such as peer training, mentorship and coaching. These could be organized centrally, through county, regional and school initiatives.
- **Use of social media** in collaborative learning could be used to exchange and share information and experiences on the reformed curriculum.
- **Online training** will adopt some of the existing online platforms including *elimika* among others.
- **Use of mass media** including TV, online and radio program.
- **A digital literacy platform** will support teachers in uploading their material. 📁 **Offline resources** will be uploaded and used by teachers.
- **A teachers' support network** will be established in every school to provide collegial assistance on a continuing basis.
- **Building a community of practice** will help sustain the change process by helping reduce teacher isolation and facilitating the process of adoption of or adaptation to curriculum change.