INTERNATIONAL BUREAU OF EDUCATION

Training Tools for Curriculum Development

Prototype of a National Curriculum Framework

United Nations
Educational, Scientific and
Cultural Organization

International Bureau
of Education

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CHAPTER 3: Examples and Models from Existing National Curriculum Frameworks

ACKNOWLEDGMENTS

INTRODUCTION

This Prototype Curriculum Framework has been developed to provide users with a reference point for their work in developing a National Curriculum Framework within their own context. The Prototype presents in a simulated form what might typically be found in a Framework.

Using the Prototype

The need to read and use this document as simply a sample or an archetype to be adjusted to national needs and contexts cannot be over-emphasized. The Prototype was developed out of context of any particular country, and draws on the experience of the IBE in a wide range of country and regional circumstances to elaborate what might typically be found in such a document. The starting point for processes to develop a real Framework, however, is the **national context** – the unique education history and traditions, the social, cultural and economic environment, and the national goals and aspirations. It is these that will shape the contents of any National Curriculum Framework.

Scope

One of the first issues to be addressed in developing a National Curriculum Framework is the question of scope. In some country contexts including every level of education, from early childhood to the provision of post-school higher education and vocational training, could be deemed an appropriate scope for the Framework. Other contexts choose to have separate Frameworks for each level. This Prototype Curriculum Framework includes Primary, Lower Secondary and Upper Secondary education in its scope.

Another dimension of 'scope' is the range of issues which any Framework seeks to address. For example, will the Framework deal with issues relating to teacher qualifications or quality of textbooks? There is no prescribed list of such issues to be included in a Framework, and what is included in a real education setting will entirely depend on the priorities and quality-related curriculum issues prevalent in that country. This Prototype attempts to illustrate how a sample range of issues can be addressed in a Framework.

Structure

Real National Curriculum Frameworks generally consist of sections which address issues and priorities identified through curriculum evaluations or other evidence-based processes. To illustrate the types of curriculum issues which a Framework could address and regulate, the Prototype Curriculum Framework is structured according to the following sections:

> **Section 1: Introduction**
> **Section 2: Curriculum Vision**
> **Section 3: Aims and Objectives**
> **Section 4: Values and Principles**
> **Section 5: Philosophy of Teaching and Learning**
> **Section 6: Curriculum Architecture**
> **Section 7: The Importance of Competency**
> **Section 8: Areas of Learning**
> **Section 9: Teaching Methodologies and Strategies**
> **Section 10: Assessment**
> **Section 11: Monitoring and Evaluation**

The Layout of the Prototype

It is assumed throughout this Prototype that one of its main audiences will be some form of national working groups which have responsibility for developing a Curriculum Framework. To provide information to these users and to support processes of developing a Framework in real contexts, explanatory comments and notes related to each section of a Curriculum Framework are provided in Chapter 1. The Prototype then seeks to provide a sample or archetype of a Curriculum Framework. This can be found in Chapter 2.

Examples in Chapter 3

Examples of text relevant to most sections of this Prototype have been taken from existing curriculum frameworks and included in Chapter 3. The purpose of these examples is simply to illustrate the range of approaches used by curriculum authorities to address the issues in their particular contexts.

The inclusion of these examples should not be interpreted as an endorsement by the IBE of the quality of the text or of the frameworks themselves nor it is claimed ample geographical representation.

Chapter 1: National Curriculum Framework and Components
Comments and Notes

SECTION 1 – INTRODUCTION

The introductory section of a Curriculum Framework is conceptual in nature and can make reference to a wide range of issues. The contents of the Introduction should be determined by the working group responsible for developing the Framework and should include all important background information needed to put the framework into the country context. In general terms, the Introduction should make readers aware of the background to the Framework and what the advantages of this approach to curriculum governance are for the country.

The Introduction to this Prototype contains three sections that are commonly found in such documents:

1. A Message from the Minister of Education and Training

The main purpose of this part of the Introduction is to record the Government's commitment to the Framework and to supporting its implementation. Such a message denotes the Framework as a significant educational policy document. Its key message to the readership should be the importance of the Framework to achieving the educational and other related priorities for the country.

> → For an example of a Minister's Message extracted from existing National Curriculum Frameworks, refer to Chapter 3, Section 1.1 or simply click here.

2. The Purpose and Function of this Curriculum Framework

A Curriculum Framework can mean significantly different things to people in different national and regional contexts. It is important that the reasons for adopting a 'framework approach' to designing and developing the curriculum are carefully elaborated, and that the various purposes and functions of the Framework are explained **within the country context**.

A Curriculum Framework is also likely to be read by a wide range of education stakeholders. It may therefore be necessary to describe the nature and importance of a Framework in a clear way, avoiding educational jargon and esoteric language.

3. The Scope of this Curriculum Framework

Among the many decisions to be made in the preparatory stage of developing a Curriculum Framework are those relating to its scope. The issue of 'scope' needs to be approached from at least two perspectives:

a. 'Vertical' scope

'Vertical' scope is used here to refer to the levels of education (early childhood, primary, middle, lower secondary, senior secondary and post-school / tertiary) over which the Framework has jurisdiction. As

principally a standards-setting document, the Curriculum Framework aims to regulate a range of matters related to curriculum quality. It, therefore, provides an opportunity to achieve consistency, continuity and cohesion across all levels of education, from early childhood / pre-school to senior secondary school and beyond.

It could equally be argued, however, that each level of education is sufficiently different from others and requires its own framework. It is common for countries to have, for example, an early childhood or Technical and Vocational Education and Training (TVET) curriculum framework which is separate from, but consistent in, philosophy and approach to the primary and secondary curriculum framework.

The 'vertical' scope of the Curriculum Framework is a matter for decision early in the development process and within the country context.

b. 'Horizontal' scope

In this context, 'horizontal' scope refers to the range of issues which exist at every level of education and which might therefore be included within the Framework. For example, it could be argued that such matters as teacher training and qualifications and textbooks should be standardized and regulated by the framework because their quality has a direct bearing on the quality of student learning. Similarly, however, it could be argued that these matters should be regulated separately within the broader education system and structures.

What is important is that these issues of scope be carefully investigated and considered during the preparatory phase of Framework development, and that the scope of the document be clearly described in the Introduction.

SECTION 2 – CURRICULUM VISION

What is a 'Curriculum Vision'?

A Curriculum Vision is a very important, overarching statement which provides guidance and inspiration to all users of the curriculum and all education stakeholders. The Curriculum Vision should, therefore:

- Be both aspirational and inspirational;
- Be expressed in a succinct way so as to engage readers and users of the Curriculum Framework; and
- Reflect any current Government statements of social and economic vision.

Why include a 'Curriculum Vision' in a Curriculum Framework?

The Curriculum Vision should foster a unity of purpose and a sense of long-term direction among those who have any responsibility for developing, delivering or monitoring the curriculum. A vision statement is important because, despite the diverse opinions about particular curriculum issues which will undoubtedly and understandably exist across the education sector, all stakeholders will share a common belief in and understanding of how the curriculum can shape the future of individuals, the society and the nation.

How should a 'Curriculum Vision' be developed?

It is critical that the Curriculum Vision be developed as the first step in the process of developing a curriculum framework. It should be based on research (into, for example, relevant Government priorities and policies, how other countries and systems express their vision for the curriculum) and, most importantly, be the subject of broad consultation. All stakeholders should be given the opportunity to contribute to and comment on the Curriculum Vision so that its ownership is shared across the education sector.

→ For examples of a Curriculum Vision extracted from existing National Curriculum Frameworks, refer to Chapter 3, Section 2 or simply click here.

SECTION 3 – AIMS AND OBJECTIVES

What are Curriculum Aims and Objectives?

Aims and Objectives are very traditional components of school curricula which would be familiar to most curriculum developers. The Curriculum Framework should define the aims and objectives for all parts of the curriculum included within its scope[1].

IBE-UNESCO defines them in the following ways:

Curriculum Aims:

Broad descriptions of purposes or ends stated in general terms without criteria of achievement or mastery. Curriculum aims or goals relate to educational aims and philosophy. They are programmatic and normally do not delineate the specific courses or specific items of content. Typically they refer to the accomplishment of groups (e.g. all learners, learners in general, most learners) rather than the achievement of individual learners (UNESCO-IBE, 2013, p. 17).

Curriculum Objectives:

Specific statements setting measurable expectations for what learners should know and be able to do, described either in terms of learning outcomes (what the learners are expected to learn), products or performance (what learners will produce as a result of a learning activity) or processes (describing the focus of learning activities) (UNESCO-IBE, 2013, p. 20).

Why include aims and objectives in the Curriculum Framework?

Aims and objectives provide a broad framework of intentions for the overall curriculum. It is important that all users of the curriculum, particularly teachers, are familiar with these broad statements of intention so that they understand how the learning activities they deliver in their classrooms contribute to the overall development of students. Similarly, content specialists who develop subject or learning area syllabuses should ensure that their subject courses are consistent with the overall aims and objectives of the curriculum.

→ For examples of Curriculum Aims and Objectives extracted from existing National Curriculum Frameworks, refer to the Chapter 3, Section 3 or simply click here.

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[1] There could be some argument that the Curriculum Framework should state the aims of the Framework, as well as of the curriculum itself. In this prototype, the aims of the Framework are incorporated into the 'purpose and function' section.

SECTION 4 – VALUES AND PRINCIPLES

What are curriculum values?

Curriculum values should be those values which are held by society at large, interpreted and expressed within an educational context. They provide one set of foundations on which the curriculum is constructed and delivered.

Why should values be included in the curriculum framework?

The role of values in the curriculum framework is often ignored or not appreciated. The curriculum framework is a very significant social document, which, in broad terms, aims to prepare young people to participate in and contribute to the culture, society and economy of the country, and to be knowledgeable and active citizens. It should therefore reflect and promote the values which are important to society. Every part of the curriculum, including the ways in which it is taught, should be consistent with the set of values contained in the framework.

What are curriculum principles?

The curriculum framework should explain the principles on which the curriculum itself is to follow. All curriculum-related policies, documents and development decisions should be consistent with those principles.

Why should principles be included in the curriculum framework?

The principles contained in the curriculum framework provide guidance to all policy-makers and curriculum developers about expectations related to the design and development of the curriculum itself, including subject content and textbooks and other learning materials. The principles should also guide teachers in their preparation of learning materials and their selection of teaching styles and methodologies.

Because the values and principles which underpin the curriculum should reflect those held in the broader society, all education stakeholders and the broader community should be consulted in their development. For example, drafts of the values and principles statements could be broadly distributed and comment and feedback could be invited from all interested individuals, agencies and civil society.

> → For examples of Values and Principles extracted from existing National Curriculum Frameworks, refer to Chapter 3, Section 4 or simply click here.

SECTION 5 – PHILOSOPHY OF TEACHING AND LEARNING:

What is a Philosophy of Teaching and Learning'?

Contemporary curriculum is more than a series of content documents. Modern curriculum is a holistic collection of knowledge, skills and values which students acquire in a cohesive and well-sequenced way. To achieve this, it is important that students engage actively in learning and that teachers adopt appropriate approaches to planning and classroom practice.

In the context of a Curriculum Framework, this philosophy of Teaching and Learning provides users with an underlying, conceptual approach to selecting and ordering content and to teaching practice. In other words, this section focuses on **how** students should be taught and should learn rather that **what** they should be taught and should learn.

Why should a Philosophy of Teaching and Learning be included in the Curriculum Framework?

Every curriculum, either implicitly or explicitly, espouses a philosophy of teaching and learning. Even though it may not be stated, there is usually a very strong relationship between the type of curriculum and the type of teaching approaches employed to deliver it. For example, a very traditional curriculum will most likely encourage a very didactic, teacher-centred approach in the classroom. In these types of classrooms, the teacher is most often at the front of the room, students are seated at desks or tables, and textbooks are the focus of every lesson. In this context, the teacher is seen as the owner of knowledge, and the students are expected to receive and retain a prescribed body of that knowledge.

If the purpose of the Curriculum Framework is to move the curriculum away from a traditional, teacher-centred system to a more responsive and student-centred one, then it must provide guidance and reasons for doing so. The overall purpose of a Curriculum Framework is to set standards for curriculum design and development, as well as for teaching, learning and assessment. It is critical that the Framework provide clearly expressed information to its users about the beliefs which underpin it. In turn, these beliefs should be based on widely accepted research.[2] These beliefs should be expressed as a clear and cohesive 'teaching and learning philosophy.'

How should a Philosophy of Teaching and Learning be developed?

The philosophy of teaching and learning will draw on a number of sources. Of critical importance is the traditional learning context of the country, and the philosophy espoused in the Framework should seek to build on these traditions.

Another source of data and information for this philosophy will be the very large and accessible range of educational research. For this reason, the education faculties of universities should be closely engaged in the process.

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[2] With regard to how to present this information, the Curriculum Framework itself should avoid being too theoretical and esoteric. To address this issue, detailed information about theories of learning on which the Framework is based could be addressed separately in a series of 'Complementary Documents.'

SECTION 6 – CURRICULUM ARCHITECTURE

Curriculum has generally become increasingly complex in recent decades as curriculum developers respond to a range of demands. In the days when knowledge outcomes were all that were expected and assessed, the curriculum itself could consist of lists of topics and related content to be memorized and repeated by students. Contemporary curriculum development, however, takes place in a more sophisticated and demanding environment.

A number of factors have contributed to curriculum design becoming more complex, including:

- Expectations about student outcomes have become more complex and have extended into different domains, including, for example, competencies and values;
- The range and number of subjects and learning areas which have legitimacy in curriculum have increased. For example,
  - Philosophy and commerce-related subjects (Business, Economics, etc) have become priority subjects included in many curricula;
  - cross-curriculum learning areas (such as Environment and Sustainability, Peace Education, Human Rights Education, Civics and Citizenship) have become important areas of learning in their own right;
  - TVET has been incorporated into curriculum structures in various ways, particularly in upper secondary years; and
  - 'Perspectives' on learning (such as curriculum requiring a 'technological' or 'indigenous people' perspective) have been added to the ways in which traditional content has been taught.
- The importance of curriculum differentiation to address the range of abilities and needs in students has been recognized.

In this environment of increasing complexity, the term 'curriculum architecture' has been coined to describe the design of the curriculum. It normally consists of an annotated list of the components of the curriculum and a description of the relationships between those components.

→ Because the arrangements for Curriculum Architecture are unique to each national context, no overall examples from existing curriculum frameworks have been included in this Prototype.

SECTION 7 – THE IMPORTANCE OF COMPETENCY

What is competency?

IBE-UNESCO defines competence in the following way:

Within the European Union an area of competence is defined as a combination of knowledge, skills and attitudes appropriate to the context. Competence indicates the ability to apply learning outcomes adequately in a defined context (education, work, personal or professional development). Competence is not limited to cognitive elements (involving the use of theory, concepts or tacit knowledge); it also encompasses functional aspects (involving technical skills) as well as interpersonal attributes (e.g. social or organizational skills) and ethical values (CEDEFOP, 2011). Competences can be domain-specific, e.g. relating to knowledge, skills and attitudes within one specific subject or discipline, or general/transversal because they have relevance to all domains/subjects. In some contexts, the term 'skills' (in a broader sense) is sometimes used as an equivalent of 'competences.' See also 'Key competences/competencies or skills' (UNESCO-IBE, 2013, p. 12).

Why is 'The Importance of Competency' included in the Curriculum Framework?

There is a very clear contemporary trend in curriculum development towards a focus on competency. In general terms, there has been a rejection of old models of curricula that consisted of lists of factual knowledge to be remembered and recalled for examinations. Even models that identify apparently discrete 'knowledge, skills and attitudes' have, in many contexts, been judged to be inadequate. It is generally seen to be of far greater value to encourage both broad competency and the development of specific competencies (often referred to as 'key competencies') through and across the curriculum.

The identification of specific competencies generally involves a process of consultation with a wide range of stakeholders, including teachers, tertiary institutions and employers.

$\rightarrow$ For examples of statements about competency extracted from existing Curriculum Frameworks, refer to Chapter 3, Section 7 or simply click here.

SECTION 8 – AREAS OF LEARNING

What are 'areas of learning'?

1. Subjects

The most common starting point for constructing a curriculum, even those based on a curriculum framework which might make new demands and set higher and different expectations, is a fairly traditional set of subjects. While this set may change over the various levels of school which the curriculum covers, it normally consists of the traditional areas of languages, sciences, mathematics, social studies of various types, the arts and physical education and personal development. As students grow and mature, these may be enriched to include such areas as philosophy, psychology, the various branches of the physical sciences and arts. In addition, Technical and Vocational Education and Training (TVET) may be added in various forms as students approach the end of their schooling.

In most curricula, the teaching and learning content for each subject area is documented in a syllabus or similar subject statement. The most common structure of a subject syllabus normally includes (but is not necessarily limited to):

- A rationale for the subject, explaining its importance and justifying its inclusion in the curriculum;
- Subject aims and objectives;
- Student competencies on which teachers should focus in their planning and teaching;
- A description of topics to be studied, preferably organized in a well-sequenced but flexible way;
- How learning in the subjects can be integrated with other subjects in the curriculum; and
- Advice to teachers about
  - o Developing teaching programmes and activities;
  - o Teaching strategies that are particularly appropriate to the subject; and
  - o How to assess student achievement in the subject for various purposes.

In an effort to 'de-clutter' and reduce 'curriculum overload' of the curriculum, an increasingly common practice is to group 'similar' subjects into broader subjects, sometimes referred to as Key Learning Areas (KLAs), and to develop a single syllabus to cover what was previously a number of subjects. In the Creative Arts, for example, Music, Drama, Dance and Visual Arts could be grouped into a single 'Creative and Performing Arts' KLA syllabus. Similarly, and especially in primary and lower secondary grades, a General Science subject could replace studies in Biology, Chemistry, Physics and Geology, and so on.

As well as simplifying the curriculum, this KLA approach encourages teachers and students to see the connections between subjects rather than viewing each subject as a discrete area of learning. It also provides teachers with opportunities to enrich learning for students by developing classroom activities which show the connection of these broad areas to real situations.

SECTION 9 – TEACHING METHODOLOGY AND STRATEGIES

What are teaching methodologies and strategies?

'Teaching methodology' refers to the broad approach to teaching and learning which teachers use to underpin their professional work in the classroom. 'Teaching strategies' refers to the types of classroom activities which teachers adopt in their classrooms in order to achieve specific teaching and learning outcomes.

Why should teaching methodologies and strategies be included in the Framework?

The National Curriculum Framework should provide advice to teachers about the kind of teaching approaches they should adopt in order to translate the intentions of the Framework into practice. While teacher representatives will have been consulted during the process of developing the Framework, the overarching and regulatory nature of the document means that teachers will need guidance and advice about its implications for their teaching.

The Framework should, therefore, provide advice about 'how' as well as 'what.' It should outline the types of teaching practices that are consistent with the principles, values and underpinning learning theory of the Framework. In some contexts, it will be particularly important to focus on areas of innovation in the curriculum, such as the focus on competency and on the integration of cross-curriculum areas of learning.

As well as informing teachers directly, this section should provide information which can be used as a starting point for professional development programmes supporting the implementation of the Framework.

→ For examples of statements about teaching methodologies extracted from existing curriculum frameworks, refer to Chapter 3, Section 9 or simply click here.

SECTION 10 – ASSESSMENT

What is assessment?

IBE-UNESCO defines assessment as

> *The process through which the progress and achievements of a learner or learners is measured or judged in compliance with specific quality criteria* (UNESCO-IBE, 2013, p. 5)*.*

Perhaps the most important aspect of this definition is that assessment is defined as a process rather than as an event. In brief, it is the process of

1. Determining the purpose of the assessment
2. Designing the tools to gather the required information, including the task(s) students have to perform and the criteria;
3. Gathering information by conducting the assessment task(s); and
4. Analysing the information and making judgments about student achievement.

In many countries, education authorities are concerned about the domination of public examinations in the assessment regime, in particular, whether those examinations distort the way in which the curriculum is taught. In addition, there are often concerns regarding the validity of examinations and the cost of conducting them.

Most national assessment regimes include public examinations. It is critical, however, that examinations are seen as just one form of assessment among many. These range from student performances in Drama and Dance to formal essays in the Social Sciences to teacher observation of group dynamics and individual participation in small group contexts. All of these, including examinations, are legitimate, provided they meet certain criteria.

Most important in these criteria is that every component of the assessment regime, including public examinations, must have a specific purpose, and the form of the assessment must reflect that purpose. This applies as much to classroom assessment tasks (such as oral presentation of the findings of an experiment in Science) as to national examinations. The real issue in countries concerned about examinations is often that their purpose is unclear or unjustified.

Why should 'assessment' be included in the Framework?

A key component of contemporary curriculum frameworks is a section which sets out systemic requirements for the assessment of student achievement and progress. It is the responsibility of all teachers and, for some purposes, of the education system itself, to know how well students have learned. For teachers, this provides vital information about the quality of their teaching and about how this can be improved. It also provides information about how learning for individual students needs to be extended or, perhaps, repeated and reinforced. This is often referred to as 'assessment of learning' and 'assessment for learning.'

The National Curriculum Framework should contain requirements and advice on assessment because it is the natural conclusion of the teaching and learning process.

SECTION 11 – MONITORING AND EVALUATION

What is 'monitoring' and 'evaluation'?

'Monitoring' in this Prototype is assumed to be a continuous process of quality assessment and control. It is normally the responsibility of school leaders and an Inspectorate.

The IBE-UNESCO defines 'curriculum evaluation' as

> *'The process of measuring and judging the extent to which the planned courses, programmes, learning activities and opportunities as expressed in the formal curriculum actually produce the expected results. If carried out effectively, this process can enable decisions to be made about improvements and future progress'* (UNESCO-IBE, 2013, p. 18).

Why should evaluation be included in a Curriculum Framework?

Developing curriculum is simply a first step in a continuing curriculum cycle. The quality of the curriculum itself, as well as its implementation, should be an on-going core issue for the education system. Only through planned processes of monitoring and evaluation can curriculum quality be properly assessed. As a result of these processes, improvements can be made to the curriculum in valid and evidence-based ways.

Planned, formal evaluation is normally the final step in any sequential curriculum development process. The information gained from any planned and systematic evaluation can be used to improve the current version of the curriculum and to inform the development of new curriculum.

→ For examples of statements about monitoring and evaluation extracted from existing curriculum frameworks, refer to Chapter 3, Section 11 or simply click here.

Chapter 2: Prototype of a National Curriculum Framework

SECTION 1 – INTRODUCTION

1.1   Message from the Minister of Education and Training

On behalf of the Government and Department of Education and Training, I am very pleased to present and endorse this document, our *National Curriculum Framework 2016*.

Nothing is more important to the future of our nation than a modern and effective school curriculum. The world is becoming an increasingly complex place, and, like every country, we must constantly re-assess and establish our place in the world and region. At the same time, we must protect and nourish those things which make us unique. Globalisation, faster and more effective communication, the vast banks of information that are now available to us all, and social instability and conflict are just a few of the characteristics of our modern world. While we find ways to participate as global citizens in this new world, we must also seek to preserve our unique heritage, culture and natural environment. These are the most important priorities for our Government.

Our key resource in successfully dealing with the challenges and, just as importantly, taking advantage of opportunities, of this dynamic environment is our people, and education is absolutely vital in preparing our people to participate fully in this new global and national context. But new challenges cannot be overcome and new opportunities cannot be leveraged through an old-fashioned, knowledge-based and examination-driven curriculum. We must enable every student on our schools to maximize his or her potential, and we must provide them with a carefully selected set of knowledge, skills and values tailored to this new world. Above all, we must encourage the confidence and competence to apply this learning in real situations.

These things are at the heart of our *National Curriculum Framework 2016*. This document reflects the best current practice in curriculum design, and focuses on developing the full potential of every student. It is not a curriculum in itself. In some ways it is more important than simply a curriculum because it sets standards that will govern all our curriculum policies, our curriculum content and our curriculum delivery. It must be read and understood by everyone who has an interest in or responsibility for developing the potential of our children. *It is now the core document of our education system.*

I thank the officers of the Ministry who have worked tirelessly to make this document a reality, and I thank all citizens, both educators and non-educators, who have contributed their ideas and expertise to its development. The Government is committed to supporting all areas of education to ensure that the expectations of the *National Curriculum Framework 2016* can be met.

I have great pleasure in commending the *National Curriculum Framework* to you.
SIGNED - Minister of Education and Training

1.2   The Purpose and Function of this Curriculum Framework

A Curriculum Framework is not a curriculum per se. Rather, it is a critical component of a 'curriculum system' which comprises subject area content descriptors (syllabuses), learning materials (including textbooks) and assessment processes and practices. Its primary function is to improve student learning outcomes by ensuring that all curriculum-related policies and practices are consistent and are of the highest standard that our education system can afford.

Our **National Curriculum Framework** sits at the peak of our curriculum system as an overarching document. It regulates our system by setting quality standards that are to be implemented across all areas of curriculum. Some of these areas are traditionally the responsibility of the Curriculum Unit of the Ministry of Education (in particular, the development of Syllabuses and textbooks), while others, which also significantly influence the quality of the curriculum and its delivery, have traditionally been the responsibility of other units in the Ministry.

> **The National Curriculum Framework sets standards for the quality of curriculum and its delivery. It also provides a focus and coherence for the work of all involved in supporting our students to achieve the best outcomes possible.**

1.3   The Scope of this Curriculum Framework

1.3.1   'Vertical' scope of the Framework

The scope of this Framework includes and is limited to

- Primary (Grades 1-6)
- Lower secondary (Grades 7-10)
- Senior secondary (Grades 11-12)

Because our Ministry allocates responsibility for Early Childhood Education (ECE) and Technical and Vocational Education and Training (TVET) to specialist Directorates, and because Higher Education is the responsibility of a separate Ministry, this Framework cannot directly influence their work. However, it is hoped that the Framework provides a contemporary and relevant model which, in the interests of sequence and continuity of students' learning experiences, will be adopted by those sectors.

1.3.2   'Horizontal' Scope of the Framework

With regard to breadth of scope, it is intended that this National Curriculum Framework will directly influence some areas of curriculum responsibility while indirectly, but still importantly, influencing others. This concept is illustrated in Diagram 1 below.

To facilitate understanding and consistent use, the Framework itself is a concise document. To provide additional detail on some fundamental issues and concepts, a series of 'Complementary Documents' has been produced (not included in this Framework). These Complementary Documents are critical to a deeper understanding of the Framework, and should be considered an integral part of it.

As mentioned above, the Introduction to the Curriculum Framework can address a number of issues, depending on their relative importance in the country context. Other sections in an Introduction could include:

- A brief history of curriculum in the country;
- A more detailed definition of a curriculum framework;
- An annotated list of relevant Government policies and priorities statements, particularly those related to education, but also noting those in related areas such areas as employment, social cohesion, culture and health;
- An elaboration of the cultural, social and economic context of the country highlighting elements and characteristics of that context which have a direct bearing on curriculum decisions; and
- An acknowledgement of those who developed the Curriculum Frameworks.

Diagram 1 – Horizontal Scope of the National Curriculum Framework
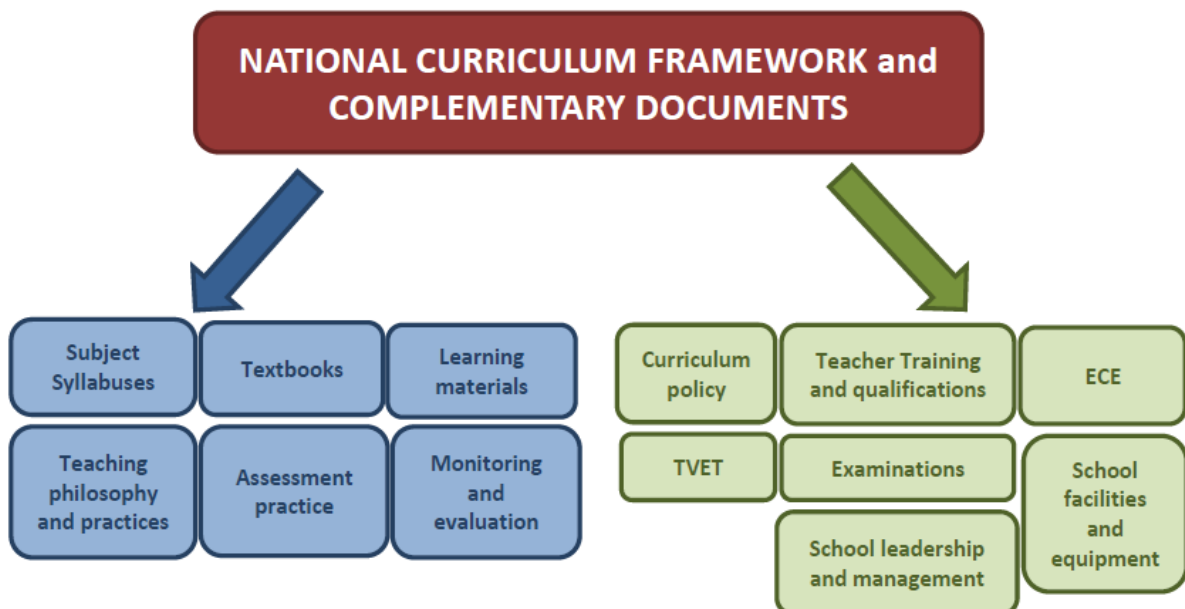
This 'division' into 'direct' and 'indirect' areas of influence illustrated in Diagram 1 is not intended to imply that a lesser degree of compliance with the requirements of the Framework applies to some functional areas. Rather, it acknowledges that functional responsibility for compliance with the Framework is spread across the Ministry of Education and Training.

SECTION 2 – CURRICULUM VISION

Our nation is facing new and exciting challenges as we move into the 21st century. With these challenges come both opportunities and threats, and we must prepare together to take advantage of the opportunities and to deal effectively with the threats.

Living in this century has been and will continue to be characterized by several very significant trends. Firstly, the rise of globalization has meant that the inter-connectedness and inter-dependence between us and other nations in our region and across the world is greater than ever. Never in our history have political, economic and social events in other parts of the world had such an immediate and profound effect on our country and our people.

Secondly, the increasing availability and capabilities of technology have changed all our lives in significant and irreversible ways. Our capacity to access and store data and information and our ways of communicating on all levels have provided us with a multitude of ways in which to conduct commerce more efficiently, to manage the responsibilities of government more effectively and to know and understand each other as individuals. This has also presented us with challenges – to our culture, our values and national identity – and we must confront these challenges with tenacity and wisdom.

Thirdly, every nation is being challenged to define its individual identity, but to do so in the context of its regional and global responsibilities and relationships. Internally, we must achieve and sustain

- High levels of productivity as a modern, robust economy,
- Coherence and stability as a harmonious, secure and stable society, and
- The traditions and values of our culture.

Externally, we must be aware of what is happening in our region and the world and fulfil our responsibilities as good global citizens.

To guide our nation successfully in the 21st century, the Government has published its vision for the coming decades – *Our National Vision 2040*. This document lays out the priority policy areas that need to be addressed in the coming decades. These include productivity and workforce development, local and global citizenship, technological capability, social stability and cultural diversity.

What and how we teach our young people now will be a key contributor to the achievement of this vision and to successfully meeting the challenges of the 21st century. We must produce generations of people who not only have knowledge but who value learning and have the competencies to use that knowledge creatively and productively. They must understand our society and its culture, and behave ethically in a sometimes confusing and demanding world.

In this complex and sometimes contradictory set of circumstances, what is our Curriculum Vision? What should we be trying to achieve in developing and implementing a school curriculum? How can the curriculum contribute towards the achievement of *Our National Vision 2050?* What is the curriculum vision which should unify and guide all our efforts?

Our Vision …

… is of a curriculum which

- **Excites learners, requires them to engage positively in the learning process and encourages them to see learning as a lifelong endeavour.**
- **Develops the full potential of every student.**
- **Is inclusive, contemporary, flexible and responsive to changing circumstances.**
- **Produces school graduates with an extensive base of deep knowledge and who have the competence to apply that knowledge productively and creatively.**
- **Promotes, nourishes and sustains our society's culture, values and beliefs.**

SECTION 3 – AIMS AND OBJECTIVES

3.1   Aims

The Aim of our National Curriculum is to produce graduates from our schools who have both the confidence and competence to participate fully in our nation's society and to be aware and responsible local and global citizens.

3.2   Objectives

The Objectives of our National Curriculum are to:

1. Provide students with a range of contemporary knowledge, skills, values and attitudes in both traditional and new subject disciplines and in a range of important cross-curriculum learning areas;
2. Develop in students the confidence and competence to apply what they have learned productively, creatively and ethically to real situations;
3. Instil in students a deep understanding of our history, culture and society and of their responsibilities as national and global citizens;
4. Encourage students' full and active participation to learn and to promote learning as a lifelong endeavour;
5. Encourage and support creative and engaging teaching;
6. Ensure that the individuality of every student is recognized and respected, and that the potential of each student is maximized, regardless of his or her race, religion, gender or level of ability.

It is the responsibility of every user of this Curriculum Framework to understand, focus on and seek to achieve these objectives. Every subject Syllabus and Cross-Curriculum Learning Area Statement should build on these objectives, and they should form the basis of all teaching and learning programmes and classroom activities.

SECTION 4 – VALUES AND PRINCIPLES

4.1   Values

Our national values represent who we are as a society and a culture, and we want these values to be sustained into the future. We must therefore instil them in our young people so that they understand them and recognize their importance. They must live by them, using them as a frame of reference to make important decisions in their lives. In this way, the character of our nation and its people, which we value so highly, will be guaranteed.

The values listed below must therefore serve as the foundation for our curriculum. These values must not only be taught to our children through the curriculum, but should be the essence of the curriculum itself. The values underpin what and how we teach and should be reflected in the day-to-day educational experience of students. They should also be reflected in all our curriculum documents, our textbooks, our learning materials and our teaching methodologies. All curriculum-related policies and procedures must be consistent with these values.

The VALUES, which our society values and which underpin our curriculum are:

- **Respect**
  This includes respect for our nation, its institutions and laws, our culture and each other.

- **Tolerance**
  We live in a multicultural society in which every citizen enjoys fundamental rights and responsibilities. At all times we must be tolerant of the legitimate and lawful beliefs, customs and views of others, regardless of how different they may be from our own.

- **Commitment to achieving our best**
  We must appreciate the opportunities we have and seek to do our best in whatever field of endeavour we are working.

- **Integrity**
  We must all be true to ourselves and our lawful beliefs, and be willing to live our lives with honesty and compassion.

4.2   Principles

The following principles are at the heart of our national curriculum. Every person with a responsibility for developing or delivering curriculum should understand the principles fully and be committed to their application. The principles should guide all policy and practice in the area of curriculum.

The core guiding principle for our curriculum is QUALITY. We must seek to develop and deliver the highest quality curriculum so as to optimize the opportunities for our young people to succeed. There are many criteria against which the quality of curriculum can be judged.

Diagram 2 below illustrates the criteria of most significance in our national context, and the principles which are listed below the diagram are an elaboration of these quality criteria.

Diagram 2 – Quality Criteria
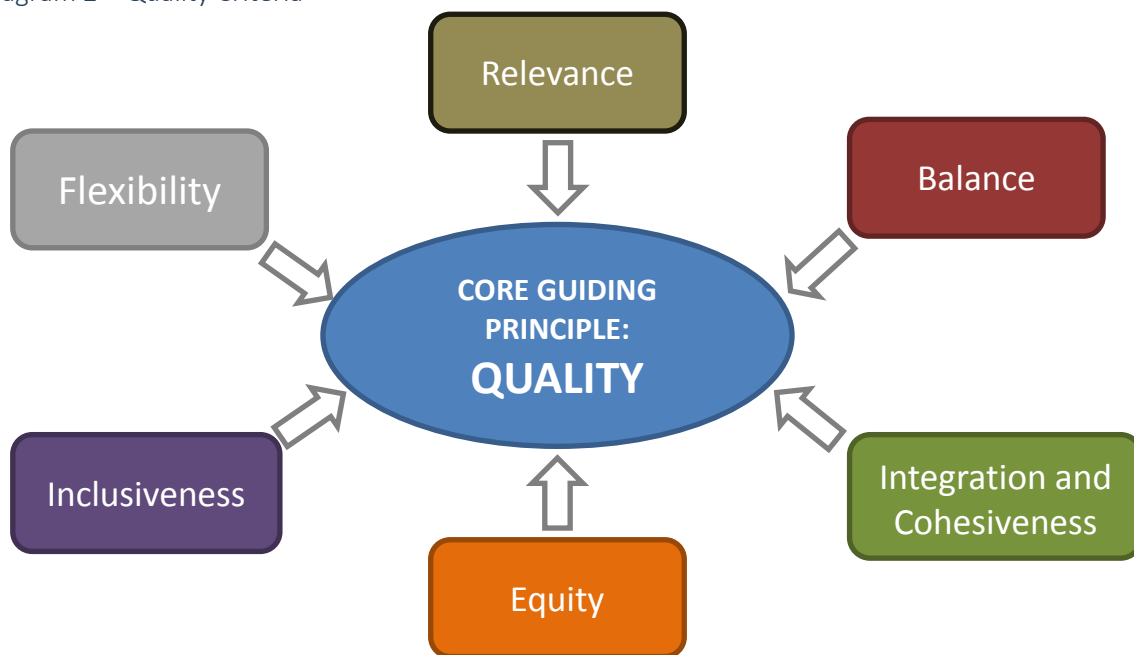
These criteria for judging the quality curriculum in our national context can be re-phrased as principles for guiding our work. These PRINCIPLES are:

- Relevance

To engage students so that they are active learners, what we teach must be relevant to their current lives. Teaching should motivate students so that they can see the relevance of what they are being taught to the world around them and to the broader national and global context. However, the curriculum must also be relevant to their future lives, preparing them for adult life in an uncertain world. It must, therefore, provide them with the confidence and competence to adapt and re-interpret what they have learned in school to new and changing circumstances.

- Balance

For too long, our curriculum has been evaluated and criticized for being 'overloaded' with knowledge and information, and for being too reliant on low level skills of memorising and re-telling. Our curriculum must recognize that human knowledge is expanding at unprecedented rates, and the choices we make about what to teach children have changed in a most fundamental way. A sound base of knowledge is unquestionably important. However, this knowledge base must be balanced with skills and values so that our primary focus shifts from knowledge to competence. As they become ready, we must engage our students in higher order thinking skills (HOTS) such as interpreting, analysing, synthesising, evaluating and creating. They must be taught and encouraged to use knowledge to solve problems in creative ways and to take risks. Through this experience, they should value learning and realize that, to be successful in this changing world, they will need to learn continuously throughout their lives.

- **Integration and cohesiveness**

For too long, our curriculum has consisted of a number of highly discrete and separate subject areas. Even our best students finish school without understanding how learning in these separate areas are used in life in an integrated way to deal with challenges and to find solutions. We must break down these barriers and, as a result, provide our students with a more cohesive and integrated body of curriculum content. This new content must be appropriately sequenced. Our curriculum must avoid repetition and demonstrate connections between subject areas whenever possible. Only when we have achieved this will our students grow and develop as competent learners.

- **Equity**

Our nation is diverse in the composition and distribution of its population. We have densely populated cities and many sparsely populated and remote, rural communities. We have people in a wide range of financial circumstances, and people with different religious beliefs and cultural traditions. Our responsibility is to ensure that, as far as possible, all school age children, regardless of individual circumstances, can access curriculum equitably. The curriculum itself must therefore be designed in ways which take account of and make provision for this wide range of cultural, social, financial and geographic circumstances.

- **Inclusiveness**

Similarly, our curriculum must be inclusive. It must acknowledge the wide range of capabilities that students have and ensure that meaningful learning is made available to them all. This includes previously disadvantaged groups (such as girls and ethnic minorities), as well as students who are highly gifted and those with learning difficulties. It must make appropriate provision for students who face physical, psychological and emotional challenges.

- **Flexibility**

The principle of flexibility will ensure that a range of opportunities and pathways are provided to students through the curriculum. The rigidity which has characterized our curriculum for so long and which required all students to study exactly the same content in exactly the same way, often at exactly the same pace, must be replaced by a more flexible approach. Only through flexibility within the curriculum can we truly acknowledge and provide for the wide and ever-changing range of needs, interests and aspirations of our students.

SECTION 5 – PHILOSOPHY OF TEACHING AND LEARNING

At the heart of any quality curriculum is a contemporary, relevant and clearly articulated philosophy of teaching and learning. All education stakeholders, in particular, subject curriculum developers and teachers, should understand this philosophy and apply it consistently in their work.

The philosophy of teaching and learning underpinning this Curriculum Framework reflects our belief that:

- **Improving outcomes for every student is central to everything we do**
  All education effort should be directed at enhancing learning. Our primary goal as curriculum developers, teachers and other education specialists is to provide the incentives, resources and environments that will foster, encourage and reward good learning.

- **Every student is unique and develops capacities at different rates and stages**
  This Curriculum Framework reflects the belief that students have different capacities, develop at different rates and learn in different ways. It, therefore, promotes flexibility in its design and requires teachers to treat each student as a unique individual. This means that classrooms should be learner-centred and that programmes should be differentiated as far as possible to acknowledge individual differences.

  With respect to assessment, teachers should use a range of techniques but should ensure that, for the purpose of measuring progress, each student's performance is compared to his or her previous performance.

- **Students should be nurtured and developed along a number of dimensions**
  For too long, our education system in general and our curriculum in particular have focused on academic performance as a measure of success. This Framework is based on the belief that, while knowledge acquisition and retention is important, there are other types of intelligence that must be nurtured if we are to truly respect the whole child. These are those espoused by Howard Gardner[3] and illustrated in Diagram 3 below:
  - Logical-mathematical
  - Linguistic
  - Spatial
  - Musical
  - Bodily-kinaesthetic
  - Interpersonal, and
  - Intrapersonal

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[3] Details of this model can be found in the Complementary Document 1 - Underpinning Learning Theories, which accompanies this Curriculum Framework.

A third source of information is teachers themselves. Teachers know and understand both the students themselves and the challenges and opportunities available in the system. Teachers should be encouraged to participate in the development of this underpinning philosophy.

→ For an example of a philosophy of teaching and learning extracted from existing Curriculum Frameworks, refer to Chapter 3, Section 5 or simply click here.

Diagram 3 – Multiple Intelligences[4]

- **Every student should be encouraged and supported to achieve 'deep learning'**

The major weakness of our curriculum and our teaching to date has been the over-emphasis on and over-valuing of knowledge acquisition, retention and re-telling. Two major consequences of this approach have been

1. A lack of competence in our 'successful' graduates to apply knowledge. These students tend to know a lot but are able to do little. This Framework emphasizes 'competency' – the ability to apply knowledge and skills, within a framework of values and attitudes, to real life situations and problems. To live and work successfully in the 21st century, students need to know, but they also need to be able to use knowledge and skills from different academic disciplines to think creatively and to solve problems.

2. A majority, and perhaps a large majority, of students are unsuccessful. This is because the curriculum and its manifestations in the classroom are geared towards and reward capabilities they do not have. Many students find the acquisition and retention of knowledge difficult, but excel at the arts or in areas requiring physical or emotional talents. We must recognize and reward these students both in the curriculum and in our classrooms.

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[4] Source: http://www.connectionsacademy.com/Libraries/blog/multiple-intelligences-learning-styles.jpg

We must always encourage students to learn 'deeply,' to engage in deeper understanding and higher order thinking to the best of their abilities. In this context, this Curriculum Framework reflects the work of Bloom and others in applying a hierarchy of learning[5]:

Diagram 4 – Bloom's Taxonomy[6]
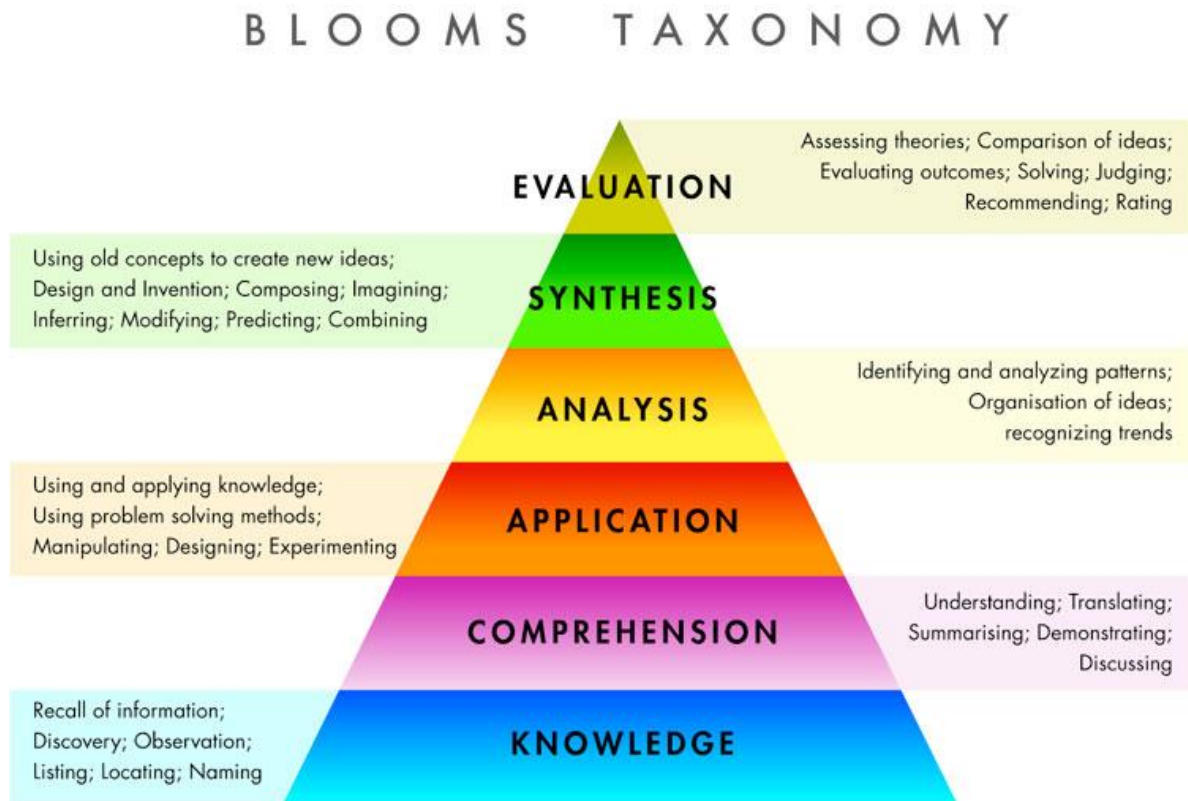
This Framework requires that, consistent with each student's capacities, we move our students from simply knowing towards higher order skills.

- Learning should be interesting and enjoyable

All experienced teachers know that students learn best when they enjoy learning. Enjoyment of learning in the classroom is a product of interesting curriculum and lively and engaging teaching delivered in a stimulating and secure environment. Engaging students, making learning enjoyable and rewarding achievement are high priority goals of this Curriculum Framework.

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[5] Details of this model can be found in the Complementary Document 'Underpinning Learning Theories', which accompanies this Curriculum Framework:.

[6] Source: https://juliaec.wordpress.com/2011/03/23/blooms-taxonomy-encouraging-higher-cognitive-thinking-in-primary-school-classrooms/

SECTION 6 – CURRICULUM ARCHITECTURE

The **National Curriculum for Primary, Lower Secondary and Upper Secondary** consists of the following documented components:

6.1   The National Curriculum Framework

This overarching document sets standards and requirements for all areas of the curriculum at all levels. These standards and requirements apply to all areas of the curriculum, and contain statements of vision, aims and objectives, values and principles which underpin the curriculum and advice to curriculum writers and teachers about what is expected of them. These statements represent our overall curriculum direction and regulatory requirements. Most importantly, the Framework emphasizes the development of competency in students as our highest priority.

As well as guiding curriculum developers, teachers, materials developers and textbook writers, it is a framework to guide all education policy-makers across the education system. With regard to teachers in particular, the Framework outlines expectations relating to their approach to teaching and assessment methodology. It also describes the subjects and combinations of subjects which students must undertake in order to successfully complete each stage of schooling.

The National Curriculum Framework is accompanied by a number of Complementary Documents, each of which elaborates on a specific requirement of the Framework itself.

6.2   Areas of Learning Statements

These statements detail the content to be taught and learned in each level of school. The statements describe two types of content:

1.   Subjects

These statements are known formally in our system as **Syllabuses**. Each syllabus relates to a specific subject and details its aims and objectives, the learning outcomes expected of students, the knowledge, skills and values that students should develop, and advice to teachers about such matters as sequencing content, developing student competencies, assessment and evaluation.

2.   Cross curriculum areas of learning

There are a number of high priority areas of learning which are appropriately taught and learned across all relevant subjects rather than in a single subject. These areas of learning are documented in our curriculum as **Cross-Curriculum Learning Area Statements (CCLAs)**. All teachers should be familiar with these statements and should incorporate their content into their subject teaching as advised in those statements. All stakeholders in the curriculum should understand that learning in these areas is considered by the Ministry to be as important as the learning defined in subject Syllabuses.

6.3   Curriculum Support Materials

There are three main categories of learning materials available to support the delivery of the curriculum. All these materials must be consistent with the philosophy and standards outlined in the Curriculum Framework.

1. Textbooks

All textbooks, whether developed by the Ministry or by private companies, must comply with the requirements of the National Curriculum Framework. In particular, they must not simply contain knowledge to be earned, but must encourage the development of the skills and values in ways that are appropriate to the subject, and focus on helping students achieve competency. They must also engage students in a range of interesting and focused classroom activities.

2. Ministry Developed Support Materials

The Ministry of Education and Training will supply a range of support materials to all schools. These materials will focus on how to implement Syllabuses and Cross-Curriculum Learning Area Statements in ways that meet the requirements of the National Curriculum Framework.

3. Teacher Developed Support Materials

It is expected that all teachers will develop their own learning support materials to ensure that their teaching is engaging and addresses the various needs and interests of students in their classes. These materials must also be consistent with the standards and requirements of the Framework.

When taken as a whole, these three components of our Curriculum constitute its 'architecture.' The components and the relationships between them are illustrated in Diagram 5 below.

Diagram 5 – Curriculum Architecture

NATIONAL CURRICULUM FRAMEWORK

- Vision
- Aims
- Objectives
- Values and Principles
- Subjects and subject requirements
- Assessment and assessment requirements
- Evaluation

COMPLEMENTARY DOCUMENTS

1. Underpinning Learning Theories
2. School-Based Curriculum
3. The Integrated Learning Project (ILP)
4. Compulsory and Elective Subjects
5. Guidelines for Developers of Syllabuses and CCLA Statements
6. Assessment
7. Evaluation

AREAS OF LEARNING

SUBJECTS

CROSS-CURRICULIMLEARNING PRIORITIES

CURRICULUM SUPPORT MATERIALS

TEXTBOOKS

MINISTRY DEVELOPED SUPPORT MATERIALS

TEACHER DEVELOPED SUPPORT MATERIALS

SECTION 7 – THE IMPORTANCE OF COMPETENCY

The most profound change to previous curricula demanded by this Curriculum Framework is in the priority given to student competency. In other words, we want our school graduates to have more than discrete, de-contextualized knowledge and skills. Rather, we aim to produce young adults who can apply the knowledge, skills and values they have acquired in integrated and practical ways.

In this Framework, 'competency' is defined as

> *The ability to use learned knowledge, skills and attitudes appropriately in real situations and contexts and within a defined set of values.*

The essential elements of competence are illustrated in Diagram 6 below:

Diagram 6 – The Nature of Competence

KNOWLEDGE + SKILLS + ATTITUDES = COMPETENCE

APPLIED IN CONTEXT AND UNDERPINNED BY VALUES
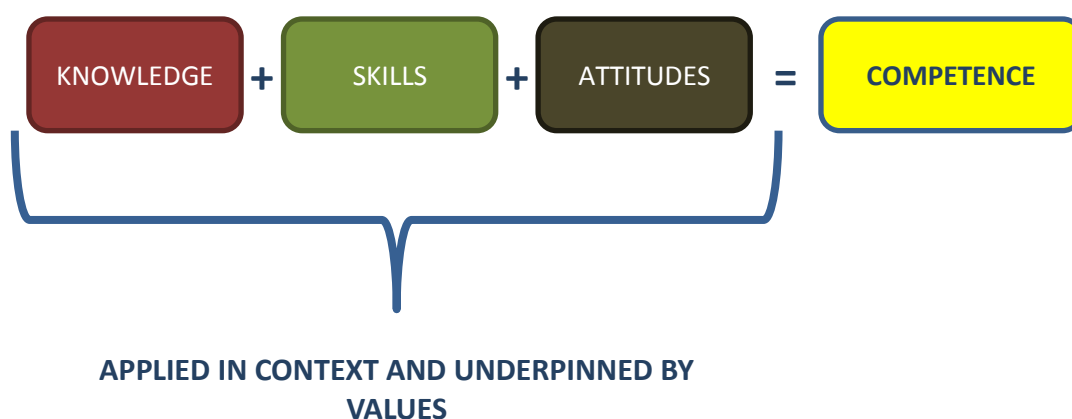
The National Curriculum Framework requires that this be done in two ways:

1. A broad and consistent focus on competence

The development of student competence in a broad sense should be the focus of every teacher in every school. This Curriculum Framework discourages discrete learning of subjects and the simple retention of knowledge as valid goals of our curriculum. While the curriculum will continue to contain subjects, now supplemented by Cross-Curriculum Learning Areas, learning experiences should provide links between those subjects and place the learning into contexts for students that are relevant and meaningful to them. They should be encouraged to internalize and evaluate knowledge and skills, and to see their relevance to the world around them.

In these ways, students will be able to develop broad competence as they deal with the knowledge and skills of individual subjects in integrated, relevant and interesting ways.

2. A focus on six specific areas of competency

Consultations conducted with teachers, universities and employers during the development of this Framework identified the following six specific areas of competency as high priority for young people graduating from our schools. It is believed that competency in these areas will promote the development of higher order thinking skills and will prepare them well for the challenges of adult life in the 21st century. Teachers are expected to actively teach and develop competency in these areas using the media of their individual subject areas. Syllabus developers are expected to incorporate these areas of competency in meaningful ways into their subject content, and textbook writers are expected to support this learning.

Competency Area 1 – Technology

Information and communication technologies have become part of our personal and working lives. Students are expected to become competent in all appropriate applications and use of technologies, as well as to understand its impact on our world and the ethics and risks involved in their use. This area of competency should be integrated into learning in all subjects and, as appropriate, in all grades.

Competency Area 2 – Communication

Communication, both verbal and non-verbal, facilitates our thinking and allows us to share those thoughts with others. This area of competency should no longer be seen as the sole responsibility of teachers of our national languages. Rather, it is the responsibility of all teachers to enhance skills and develop confidence in the use of all forms of communication.

Competency Area 3 – Analysis and Synthesis

Information has never before been available to us all so easily and in such quantity. Students should become competent in assessing the quality of information, analysing it and connecting it with other information on similar topics. Competency in analysis and synthesis will be important to them in both tertiary studies and employment.

Competency Area 4 – Creative thinking

The capacity to think creatively will be essential to success in the 21st century. Students must learn to think creatively, so that they can bring original proposals to a range of situations they encounter. This approach will require teachers to encourage risk-taking, to suggest new ideas without fear of judgement or condemnation for being 'wrong.'

Competency Area 5 – Problem-solving

Students should be encouraged to treat problems as challenges to be overcome through effective planning and thinking processes. Simulations and scenarios in which students are presented with real or invented problems to be solved should be a common teaching strategy in every subject.

Competency Area 6 – Working with others

The capability to work with others in teams, to co-operatively share information and ideas with a view to solving problems and creating products, should be encouraged in every subject. This area of competency is highly valued by employers.

SECTION 8 – AREAS OF LEARNING AND INDICATIVE TIME ALLOCATIONS

8.1   Subjects

Subjects in the National Curriculum Framework are grouped into broad Key Learning Areas (KLAs). The purposes of this grouping are:

1. To encourage Syllabus writers and teachers to see and utilize connections between subjects of a similar type. Taking advantage of these connections in planning teaching programmes and lessons is an important means of achieving objectives related to integrated learning.
2. To allow for flexibility in patterns of study as students grow and mature while ensuring that there is a breadth of study required of every student at every grade level. As students mature, the curriculum should allow them to follow their interests to an extent appropriate to their age and stage of development. In some cases, however, the curriculum will require them to select subjects from within each KLA grouping.

To encourage integration and to provide flexibility to schools for how they group students, the National Curriculum Framework also divides grade levels into four Key Stages (KS):

KS1   Lower Primary (LP):   Grades 1-3

KS2   Upper Primary (UP):   Grades 4-6

KS3   Lower Secondary (LS): Grades 7-9

KS4   Upper Secondary (US): Grades 10-12

The time allocated to each year is based on the requirements of the *School Education Act 2015*. The Act mandates that

Schools shall operate for a minimum of 200 days per school year, and shall conduct classes for a minimum number of hours as prescribed in the following table:

Key Stage (KS)	Grades	Minimum hours of instruction per day	Minimum hours of instruction per year
KS1	1-3	5	1000
KS2	4-6	6	1200
KS3	7-9	7	1400
KS4	10-12	7.5	1500

Rules regarding which subjects from within the KLAs are to be studied are prescribed in the following table and have been tailored to each Key Stage allowing for increased flexibility as students move through the various grades.

Syllabuses in general should be consistent with all the requirements of the Curriculum Framework. One of their most important characteristics should, in fact, be the extent to which they illustrate the principles, values and priorities of the Framework at a practical and teacher-friendly level. For example, the importance of competencies and higher order thinking skills, as well as the fundamental

principles and learning theories detailed in the Framework, should be evident in the subject syllabuses in ways which help teachers understand and implement them. They should also encourage integration of learning with the content of other subjects so that students can see and use what they learn more effectively.

This Prototype Framework contains a list of characteristics of syllabuses which are intended to advise syllabus developers about how to achieve consistency with the Framework.

Many Curriculum Frameworks also address the issue of time allocation to subjects. A sample of this is also provided in the Prototype. It seeks to demonstrate some ways in which principles of flexibility, relevance and integration can be encouraged. It also demonstrates how school-based decision-making about time allocations can be facilitated.

It will be noted that a significant proportion of time in each grade has been designated 'School-based Curriculum.' This provides each school with the flexibility to devote additional time to students with special learning needs (such as students who need additional time to achieve outcomes and gifted students who need to be challenged by having their learning extended). Schools can also use that time to conduct programmes and activities designed to integrate subjects through project work and integrated competency development[7], or to provide programmes in areas such as home economics studies and industrial skills.

It should also be noted that the hours for each subject are allocated per year rather than per week as in previous curricula. The intention of this prescription is to provide schools with flexibility in the ways in which they use the allocated time. For example, schools might wish to teach some subjects in some years during Semester 1 or 2 only, or to teach certain subjects during an appropriate season or at a time which coincides with a significant event in the local community.

How to programme the lesson time within the prescribed time allocation in the table below is entirely at the discretion of each school. The term 'Indicative Hours' means that the school can vary these hours for students or groups of students, providing that these variations can be justified during the curriculum monitoring process.

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[7] For a full description of the school-based curriculum policy, suggestions about how schools can use this flexibility and administrative and monitoring arrangements, refer to the Complementary Document 2 – School-Based Curriculum, which accompanies this Curriculum Framework.

Time Allocation to Subjects

Table 1 – Lower Primary (KS1 – Grades 1-3)

KLA	Subject / Syllabus	Hours per week AVERAGE ONLY[8]	Indicative Hours per year
Language	Mother Tongue	4	160
	Other National Language	2	80
Mathematics	Mathematics	4	160
Science and Technology	Science and Technology	4	160
Social Studies	Social Studies	4	160
Arts and Craft	Music, Dance and Craft	3	120
Health and Physical Education	Health and Physical Education	3	120
School-based curriculum		1	40
TOTAL HOURS		**25**	**1000**

Table 2 – Upper Primary (KS2 – Grades 4-6)

KLA	Subject / Syllabus	Hours per week AVERAGE ONLY	Hours per year
Language	Mother Tongue	4	160
	Other National Language	2	80
Mathematics	Mathematics	4	160
Science and Technology	Science and Technology	4	160
Social Studies	Social Studies	4	160
Arts and Craft	Music, Dance and Craft	4	120
Health and Physical Education	Health and Physical Education	4	120
School-based curriculum		4	40
TOTAL HOURS		**30**	**1200**

Table 3 – Lower Secondary (KS3 – Grades 7-9)

KLA	Subject / Syllabus	Hours per week AVERAGE ONLY	Hours per year
Language	Mother Tongue	4	160
	Foreign Language	3	120
Mathematics	Mathematics	4	160
Science and Technology	General Science	4	160
	Technology Studies	2	80
Social Studies	Social Studies	4	160
Arts and Craft	Music, Dance and Craft	4	160

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[8] This figure is only an average number of hours of instruction per week. Schools can vary the hours per week but are required to complete the nominated hours of instruction per year.

Health and Physical Education	Health and Personal Development	2	80
	Physical Education	2	80
Integrated Learning Project[9]		2	80
School-based curriculum		4	160
TOTAL HOURS		**35**	**1400**

Table 4 – Upper Secondary (KS4 – Grades 10-12)

	KLA	Subject / Syllabus	Indicative Hours per week
Compulsory Subjects (See NOTE 1)	Language	Mother Tongue	4
	Mathematics	Mathematics	4
	Health and Physical Education	Heath and Personal Development	2
		Physical Education	2
	NON-KLA: Integrated studies and Support	Integrated Learning Project	4
		School-based Curriculum	5
	TOTAL INDICATIVE HOURS (COMPULSORY SUBJECTS)		**21**
Elective Subjects (See NOTE 2)	Language	Foreign Language 1	4
		Foreign Language 2	4
	Science and Technology	Biology	4
		Physics	4
		Chemistry	4
		Earth Sciences	4
		Technology Studies	4
	Social Studies	Geography	4
		History	4
		Economics	4
		Philosophy	4
	Visual and Performing Arts	Music	4
		Dance	4
		Drama	4
		Visual Arts	4
	Vocational Studies	Agriculture	4
		Business and Administration	4
		Tourism and Hospitality	4
		Building and Construction	4
		Health and Nursing	4
	TOTAL INDICATIVE HOURS (ELECTIVE SUBJECTS)		**16**
	TOTAL INDICATIVE HOURS (ALL SUBJECTS)		**37**

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[9] The Integrated Learning Project (ILP) is a mandated cross-curriculum project proposed and conducted by each student in consultation with their 'home teacher.' The ILP is designed to consolidate and further develop each student's research, creativity and other competencies. The main purpose of the ILP is to encourage students to integrate their learning from across the curriculum by nominating and investigating an issue or idea that is interesting to them. For a full description of the ILP, suggestions about the types of project, some models and teaching and assessment ideas, refer to the Complementary Document 3 – The Integrated Learning Project, which accompanies this Curriculum Framework.

1. All students must complete the requirements of all compulsory subjects as prescribed in the relevant Syllabuses.
2. To complete his / her individual pattern of study, each student must choose a combination of four (4) elective subjects from those offered by the school. Each student's pattern of study must total 40 hours per week. Not all schools are required to offer every elective subject.

8.2 Cross-Curriculum Learning

A clear trend in contemporary curriculum is a realisation that learning within the parameters of traditional subjects is inadequate in the 21st century. Many areas of learning, which do not fit comfortably within existing subject structures, have emerged in recent decades. These areas include the uses, roles and impact of technology, issues related to the environment and sustainability, regional instability and insecurity and their consequences, the role of mass media, and an understanding of and respect for human rights.

The relative importance to be attributed to each of these (and other) areas is a matter for each country. While those mentioned above are common 'cross-curriculum areas of learning' or 'cross-cutting issues,' each country should put in place a process to determine which of these areas should be addressed in the school curriculum.

One important point to note is that it is insufficient to simply nominate areas such as these and then to leave how they are dealt with to teachers. Learning in these areas is as valuable and legitimate as learning in traditional subjects. They should, therefore, be given the same status and the content and learning outcomes expected in them should be articulated in a document of similar status to a subject syllabus or set of standards. As well as defining content and learning outcomes, one important function of these documents should be to 'map' that content to existing subject syllabuses in the curriculum. In this way, teachers will be alerted to the most significant opportunities to teach the content through the medium of their own subjects.

One difficult issue in this area is assessment. In principle, if the content and learning outcomes of cross-curriculum learning areas are as legitimate and valuable as those in traditional subjects, then assessment of that learning must take place. This is often a significant challenge. However, just as the teaching of this material can be integrated into subject teaching, the assessment of learning outcomes should also be integrated into subject assessment regimes and processes.

In the Prototype National Curriculum Framework, the following Cross-Curriculum Learning Areas (or CCLAs) are identified and explained:

- The preservation of our national culture
- Sustainability and the Environment
- The impact and challenges of Technology
- Media awareness and understanding

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[10] For information about Compulsory and Elective Subjects, refer to the Complementary Document entitled 'Compulsory and Elective Subjects', which accompanies this Curriculum Framework.

Because the arrangements for learning areas and time allocations are unique to each national context, no overall examples from existing curriculum frameworks have been included in this Prototype. However, examples of cross-curriculum learning areas extracted from existing curriculum frameworks can be found in Chapter 3, Section 8 or simply by clicking here.

8.3   Cross-Curriculum Learning Areas (CCLAs)

There are a number of areas of learning which are of high priority for our young people and for our nation, but which are most appropriately taught and learned across a number of subjects rather than in a single subject. As well as incorporating the content into subject-specific learning programmes, some proportion of school-based curriculum and the Integrated Learning Projects can also be used for this purpose.

The content of these Learning Areas is contained in the Cross-Curriculum Learning Area Statements, which, among other advice, map these areas of learning to individual subject syllabuses. The statements also provide advice regarding the assessment of student learning outcomes in each area. The high priority Cross-Curriculum Learning Areas in our curriculum apply at all levels and for all grades. They are:

- **The preservation of our national culture**
  The cultural history and traditions of our country are what makes us unique, and define who we are in the Region and the world. It is critical that our young people learn about our culture and are committed to ensuring that it is preserved and nourished into the future.

  While the main 'carrier' subjects for content about our national culture are Language, History and the Arts, there are many ways in which learning in this area can be integrated into Mathematics, the Sciences and other subjects through the imaginative of relevant examples, models and scenarios.

- **Sustainability and the environment**
  Concerns about both local and global environments are common to curriculum developers around the world. In our curriculum, students should be taught about environmental issues in every grade of school. While this might be the concern of Sciences and Social Sciences in particular, it should also be incorporated into Languages (through, for example, using these issues as topics for a variety of reading, writing and speaking assignments) and Mathematics (through, for example, data analyses of various kinds).

- **The impact and challenges of technology**
  Learning about technology is far more than simply understanding how common technologies work. This Learning Area also has dimensions of social impact, personal risks and safety, and ethics. While it may appear to be the responsibility of the Science and Technology Key Learning Area, its various dimensions should be taught across all subjects as appropriate.

- **Media awareness and understanding**
  Our society is influenced by both mass media and 'social media' to an extent never before experienced. Students must be able to understand, evaluate and 'de-construct' mass media and to learn to use social media effectively and safely. They must understand how the proliferation of media devices has changed and continues to change our world. This learning can be incorporated into subjects in Technology, Language and History, as well as a range of others.

8.4 Guidelines for Developers of Syllabuses and Cross-Curriculum Learning Area Statements (CCLAs)

Syllabuses and CCLAs which simply list knowledge and information about topics and which make low-level intellectual demands on students are no longer appropriate in contemporary curricula. National Curriculum Frameworks often set out clear guidelines for syllabus writers. For example, Frameworks should require that syllabuses, at all levels and grades, demonstrate characteristics that reflect the priorities in the Framework. In addition to defining the scope and sequence of learning in the subject or learning area, they should:

- Demonstrate a balance of knowledge, skills, attitudes and values as well as a focus on competency.
- Be up to date and relevant to the real world.
- Promote learning opportunities which excite learners, such as games, creative projects and team activities.
- Be consistent in structure and tone with each other.

It may be appropriate for the Framework to stipulate a structure and format by which all syllabuses and CCLAs must conform.

8.5 Guidelines for Developers of Subject Syllabuses and CCLA Statements

Subject Syllabuses and CCLAs describe the essential learning of our National Curriculum. While it is this Framework which provides the vision, philosophy, values and broad directions, it is the Syllabuses and CCLAs that teachers will use on a daily basis to plan their teaching programmes and activities, and to seek guidance about teaching and assessment strategies.

These statements must therefore exhibit the following characteristics:

1. **Consistent** and **compliant** to a high degree with the National Curriculum Framework;
2. **Appropriate** in the demands they make on students in relation to their age and developmental stage;
3. **Current** in the field, containing up to date knowledge and information in line with best practice around the world,
4. **Well-sequenced**, ensuring that there is a clear progression and continuity of learning in the subject matter based on a hierarchy of learning objectives;
5. **Flexible**, allowing teachers to select topics and other areas of study within the field which are of particular interest to their students;
6. **Inclusive**, ensuring that all students have the opportunity to reach their potential in their study of the content, regardless of their level of ability;
7. **Outcomes-based**, acknowledging that the learning outcomes that students achieve are paramount;
8. **Balanced** in that they contain an appropriate range of knowledge, skills, attitudes and values; and, above all,
9. **Competency-focused**, ensuring that students who study the subject matter become competent in using that learning in real and simulated contexts.

These requirements apply to all Syllabuses and CCLA Statements. Further information and guidance for curriculum developers in each Subject and CCLA, including document templates, can be found in the Complementary Document – Guidelines for Developers of Syllabuses and CCLAs.

SECTION 9 – TEACHING METHODOLOGY AND STRATEGIES

This National Curriculum Framework establishes many new standards, priorities and expectations which will have an impact on all parts of our education system. While policy-makers, curriculum developers, resource developers and inspectors will all need to comply with these new requirements, it is the work of teachers that will change most profoundly. The aim of the Framework is to improve the learning outcomes of our students, and it is teachers who will ultimately have most influence over whether or not this aim is achieved.

The purpose of this section of the Framework is to provide advice and guidance to teachers about turning the theory and principles of the Framework into action.

9.1   Teaching Methodology

The term 'teaching methodology' here refers to the broad approach to teaching and learning which teachers use to underpin their professional work in the classroom. Most teachers have a preferred methodology which they have developed in response to such factors as:

- Their own learning experiences at school;
- Their own preferred learning style;
- The real or perceived nature of the subject they teach;
- Their training and experience; and
- The real or perceived expectations of the school system.

This Framework will require many of our teachers to change their methodology. In broad terms, it requires them to place students at the centre of the teaching-learning process and acknowledge the uniqueness of each student (in terms of, for example, interests, abilities, needs and styles of learning). These requirements are not consistent with teacher-dominated classrooms in which the perceived primary role of the teacher is to convey knowledge to uninformed and passive students.

The dominant teaching methodology required by this Framework is one that engages students and makes learning exciting. This means that students should be encouraged to explore, experiment and question. Teachers should encourage curiosity and encourage students to take risks, so they know that their questions and opinions will not be unfairly criticized or ridiculed. Teachers should see themselves as trusted leaders and facilitators of learning rather than as 'fountains of knowledge.'

9.2   Teaching Strategies

'Teaching strategies' refers to the types of classroom activities which teachers adopt in their classrooms in order to achieve specific teaching and learning outcomes. To put the preferred methodology outlined above into effect, teachers should adopt the following types of strategies:

- ### Flexible student grouping strategies
  Teachers should take a flexible approach to learning groups. While for some purposes a whole class group is appropriate, teachers should also organize students, as appropriate, into small groups in which they work with peers selected according to interests, abilities or some other relevant criteria.

- **Language-in-learning strategies**

Traditional, teacher-dominated classrooms generally require students to engage predominantly in the receptive modes of language (reading and listening). Student-centred learning strategies demand that a greater balance is achieved in the four language modes, with greater opportunities for students to gain deeper understanding through the expressive language modes (writing and speaking).

The strategies implied in this shift of emphasis in language use include:

  o Peer to peer discussions;
  o Oral and written presentations;
  o The use of open rather than closed questions; and
  o Structured writing tasks designed to encourage exploration of ideas.

- **Competency-focused strategies**

As noted in earlier sections, the most significant shift in our curriculum required by this Framework is to a greater focus on student competency. Teachers should develop and implement classroom activities which require students to use the knowledge, skills and attitudes they have acquired in real-life and simulated situations. This would require teachers to invent scenarios and problems related to the subject content but with which students have to deal by integrating learning from a range of disciplines.

- **Student self-directed strategies**

As students grow and mature, teachers should encourage them to identify and pursue their own interests within the parameters of the subject syllabus. They should empower students to question and to research information related to their interests.

Teachers should consider such activities as self- and group directed research projects, which focus on particular aspects or themes within a syllabus topic.

SECTION 10 - ASSESSMENT

10.1 What is Meant by 'Assessment' in this Framework?[11]

Assessment of students' learning is an integral part of every teacher's responsibilities. Through assessment, teachers can understand what students have learned and how well they have learned. Assessment activities undertaken by teachers normally range from formal (such as performances, examinations, tests, etc. that are part of a documented assessment program) to informal (such as classroom observations and ad hoc exchanges with students about their work).

Assessments can also have different purposes, most commonly generalized as 'assessment of learning' and 'assessment for learning.' The primary purpose of the former is to judge what and how well specific learning has taken place with a view to reporting that information to stakeholders outside the classroom (such as parents, education authorities or employers). The primary purpose of the latter is to use assessment information to inform future teaching and learning directions and programmes.

> **THIS NATIONAL CURRICULUM FRAMEWORK VIEWS ALL THESE TYPES OF ASSESSMENTS AS BOTH LEGITIMATE AND IMPORTANT.**

10.2 Assessment as a Process

Assessment should be perceived as a process, not an event. Through this process, teachers, and sometimes the education system, determine how well students have learned. The process typically consists of the following phases:

Diagram 7 – Phases of the Assessment Process

Phase 1: Plan	→	Phase 2: Gather Information	→	Phase 3: Make Judgements	→	Phase 4: Take action
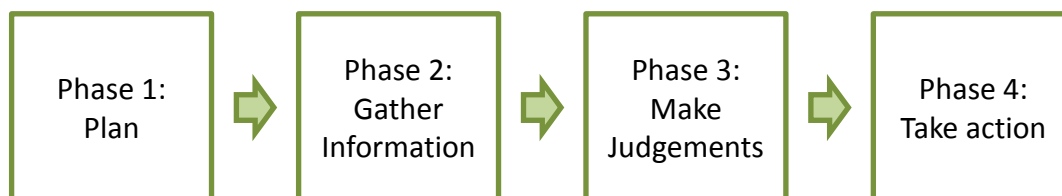
1. Planning

Before conducting assessments, assessors (whether they be teachers or other responsible authorities, such as the National Examinations Board) should have determined

- The purpose and objectives of the assessment;
- The task and whether it will achieve those objectives; and
- The criteria that will be applied to judging students' performance on the proposed task.

→ Examples of statements about teaching methodologies extracted from existing curriculum frameworks can be found in Chapter 3, Section 10 or simply by clicking here.

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[11] More information and advice about assessment can be found in Complementary Document 6 – Assessment, which accompanies this Framework.

The level of detail involved in this stage will depend on the level of formality of the assessment – the more formal the assessment the more detailed should be the planning.

2. Gathering information based on students' performance

In this phase, students undertake a task through which they demonstrate what they have learned. The tasks can vary according to the nature of the knowledge, skills or values being assessed and are almost endless in their range, from formal, written examinations through to classroom performances and practical demonstrations. Information is gathered by assessor (in most cases the teacher) reading, listening to or observing students' performance.

3. Making judgements about students' performance

Based on the information gathered, teachers can make judgements about the quality of the students' learning. This judgement can compare students' learning to

- Their previous level of learning, or
- The learning of other students, or
- A set of criteria related to the purpose and objectives of the assessment.

4. Acting on the information and judgements

Having made the judgements about the quality of students' learning, teachers can then take action. For example, they can

- Report the judgements they have made about students' level of achievement and progress to parents or other stakeholders;
- Plan enrichment and remedial learning activities to address students' weaknesses and build on their strengths; and/or
- Revise teaching materials and methodologies to improve learning processes in their classrooms.

> **IT IS A REQUIREMENT OF THIS NATIONAL CURRICULUM FRAMEWORK THAT TEACHERS ADOPT THIS 'PROCESS' AND USE A RANGE OF APPROPRIATELY PLANNED ASSESSMENT TASKS AND ACTIVITIES TO GATHER INFORMATION ABOUT THE QUALITY OF STUDENT LEARNING.**

10.3 The Place of Examinations

Formal examinations, whether at school level or at system levels (such as the Lower Secondary Certificate of Education or LSCE examinations at the end of Grade 9 and the Upper Secondary Certificate Examinations or the USCE at the end of Grade 12), are legitimate components of our assessment system. They are therefore subject to all the requirements regarding assessment set out in this section of the National Curriculum Framework.

> **THIS NATIONAL CURRICULUM FRAMEWORK REQUIRES THAT EXAMINATIONS BE PERCEIVED AS JUST ONE FORM OF ASSESSMENT AND THAT THEY CIOMNPLY WITH ALL THE REQUIREMENTS FOR ASSESSMENT SET OUT IN THE FRAMEWORK.**

SECTION 11 – MONITORING AND EVALUATION

Measuring the quality of what we do is critical to our professional work as educators. Just as the work of teachers should be constantly evaluated both by themselves and, consistent with the Ministry of Education's 'Quality Teaching Policy,' objectively by others, so the outcomes of the curriculum itself should be monitored and evaluated.

It is very important that the education system is confident that its intentions for the curriculum are being realized and that its benchmarks of quality are being met. This is the purpose and goal of monitoring and evaluation processes. As a result of these processes, Syllabuses can be adjusted and other aspects of the curriculum (such as, for example, time allocations and patterns of study) can be changed to better achieve our objectives.

Monitoring the quality of curriculum and its implementation is an on-going process and should be the responsibility of principals and the Inspectorate as prescribed in the Education Act. In addition, all components of our curriculum, including the National Curriculum Framework itself, should be the subject of formal, systematic and regular evaluation. With regard to evaluations of the whole curriculum, the period between evaluations occurring should not exceed 6 years.

Formal evaluations should be conducted by agencies external to the curriculum and syllabus development process. Depending on the purpose and scale of the evaluation, the process could be carried out by:
- National experts,
- International experts, and / or
- National University Education Faculty staff.

A range of instruments and data sources should be developed and utilized for evaluations. These could include but not be limited to:
- Teacher feedback;
- School principal feedback;
- Student performance data; and
- Surveys and questionnaires to stakeholders, including students, teachers, parents and employers.

When curriculum evaluations are being planned and conducted, the National Curriculum Framework should be used as the core reference document. They should focus on the extent to which each aspect of the Curriculum Framework (Vision, Aims, Objectives, Principles and Values, Competencies, Syllabus quality, assessment requirements and so on) is being successfully implemented and remain relevant and valid. These evaluations should provide evidence-based reports and recommendations to the Ministry on future directions for the curriculum[12].

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[12] More information and advice about assessment can be found in Complementary Document 7 – Curriculum Evaluation, which accompanies this Framework.

Chapter 3: Examples and Models from Existing National Curriculum Frameworks

NOTE: The inclusion of these examples should not be interpreted as an endorsement by IBE-UNESCO of the quality of the text or of the frameworks themselves.

SECTION 1 – INTRODUCTION

1.1   Message from the Minister of Education and Training

Providing quality schooling is a high priority for the ACT Government. This new curriculum framework, *Every Chance to Learn*, is an exciting and historic development in ACT school education – one that will ensure we provide the very best teaching and learning for our students.

From 2008, all ACT schools will use this framework to plan what they teach in their school curriculum from preschool to year 10.

The new framework states clearly what the ACT community believes is essential for all students to learn and what we expect all students to be able to do as a result of that learning. It lays the foundation for high curriculum standards in all ACT schools by identifying the essential content that should be taught to the children and young people of Canberra.

The title of the framework, *Every Chance to Learn*, came from students, who told us that they wanted their teachers to give them 'every chance to learn' the knowledge and skills that will best prepare them for life and work in the 21st century. With this new framework, all ACT students will be taught the knowledge, skills and values that are critical for their future as lifelong learners and as informed citizens.

Consultation has been a key feature of the four-year curriculum renewal process, led and informed by the Curriculum Renewal Taskforce and Curriculum Renewal Consultative Committee, both with broad professional and community representation. Many teachers, students, parents, academics and community members contributed to each phase of the framework's development.

I commend the expertise and efforts of everyone involved in producing such a quality document and wish all ACT principals and teachers well, as they use this framework to maximize the learning outcomes for the students in their care.

Minister for Education and Training
(Australian Government Department of education and Training, n.d., p. 4)

SECTION 2 – CURRICULUM VISION

Iraq

While the statement of a vision for the curriculum is important, it is not always identified as a 'curriculum vision' per se. For example, the following text from the Iraqi Curriculum Framework is undoubtedly a visionary statement but is contained within the section of the document entitled 'Why Does Iraq Need a New Curriculum?':

> *We need to give all our children, girls and boys in all parts of Iraq, the chance to benefit from quality education and to fulfil their individual potential.*
>
> *We need to ensure our curriculum meets international standards and our children have the same opportunities or better learning opportunities as children in other countries.*
>
> *We need to transform our schools into stimulating and engaging places of learning where our children desire to go and that reflect our cultural values and priorities* (Ministry of Education, Iraq, 2012, p. 11)*.*

Kosovo

Similarly, the Curriculum Framework of Kosovo contains the following visionary statement in its introductory section:

> *Education will enable learners to know about and value the traditions of their family and their community, as well as to make them able to be open to the history and culture of other communities, and of other countries and people. Children will be also encouraged in cultivating their traditions and in contributing to the enrichment of their cultural heritage* (Ministry of Education Science and Technology, 2011, p. 10)*.*

SECTION 3 – AIMS AND OBJECTIVES

3.1 Curriculum Aims

United Kingdom

The National Curriculum has three broad aims. It should enable all young people to become:

- Successful learners who enjoy learning, making progress and achieving.
- Confident individuals who are able to live safe, healthy and fulfilling lives.
- Responsible citizens who make a positive contribution to society.

These aims should inform all aspects of teaching and learning and be the starting point for curriculum design (National Curriculum, 2010, p. 4).

Malta

The NCF aims at developing:

a. Learners who are capable of successfully developing their full potential as lifelong learners.
b. Learners who are capable of sustaining their chances in the world of work.
c. Learners who are engaged citizens in constantly changing local, regional and global realities (Ministry of Education, Employment and the Family, 2011, p. 30).

While aims are frequently succinct statements of intention for the curriculum, it is common for curriculum frameworks to elaborate on them and provide considerable detail about their intentions and implications. Refer to the source document for this elaboration.

3.2 Curriculum Objectives:

Curriculum objectives should arise naturally from and be consistent with the stated aims. The examples below are therefore taken from the same countries whose aims statements are cited above.

United Kingdom

In particular, the curriculum should:

- Promote high standards, particularly in literacy, numeracy and ICT capability.
- Provide continued entitlement from early years to a coherent, broad and balanced curriculum.
- Instil in children a positive disposition to learning and a commitment to learning.
- Promote and pass on essential knowledge, skills and understanding valued by society to the next generation.
- Be meaningful and purposeful to children in the here and now and prepare them for the next phase of their education and for their future.
- Widen horizons and raise aspirations about the world of work and further and higher education.
- Make children more aware of, and engaged with, their local, national and international communities.
- Help children recognize that personal development is essential to wellbeing and success (Ministry of Education, Employment and the Family, 2011, p. 5)[13].

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[13] It should be noted that, in the source document, these statements are included in the 'Purposes' section. However, they could also reasonably be interpreted as examples of broad curriculum objectives.

The statements below, which expand on each of the Aims statements in the National Curriculum Framework of Malta, could legitimately be interpreted as statements of objectives.

A. Learners who are capable of successfully developing their full potential as lifelong learners
This leads to the development of:
- *Personal and social skills*
- *Moral and spiritual development*
- *Literacy, numeracy, and digital literacies*
- *Bilingualism and multilingualism*
- *Science and technology competence*
- *Critical and innovative thinking*
- *Aesthetic appreciation and creative expression*

B. Learners who are capable of sustaining their chances in the world of work
Although in the Primary years children are far-removed from the world of work, the foundation skills and attitudes for employability are to be nurtured from an early age. Such skills and attitudes develop through:
- *The ability to communicate effectively and confidently*
- *Competence in using new information and communication technologies*
- *The ability to train, re-train and develop new skills*
- *Economic stability and independence*
- *Innovation and entrepreneurship*
- *The ability to readily embrace mobility and exchange*
- *A systems view of reality that facilitates their engagement in the promotion of sustainable development*
- *An active involvement in sustainable development issues*

C. Learners who are engaged citizens in constantly changing local, regional and global realities
These learners need to:
- *Respect diversity and value difference*
- *Respect and promote Maltese culture and heritage*
- *Develop intercultural competence and appreciate their heritage within*
- *the Mediterranean, European and global contexts*
- *Work towards strengthening social cohesion and ensuring social justice*
- *Uphold social justice and democratic principles* (Ministry of Education, Employment and the Family, 2011, p. 30).

SECTION 4 – VALUES AND PRINCIPLES

4.1 Values

Bhutan (Culture and Values)

Deeply embedded in Bhutan culture is the philosophy and practices of Buddhism, profoundly influencing their spiritual, cultural and traditional way of living.

Traditional Bhutanese values not only address individual self-discipline and the conduct of interpersonal relationships but also delineate the responsibility of all sentient beings. Values are described as a set of ideas and beliefs, which influence the thought(s) and action(s) of a person. Values help people to organize social relations by distinguishing between what is socially acceptable from what is not. The concept of *ley judrey* (actions have consequences) and *tha damtshig* (sacred commitment to others) is central to Bhutanese values. It is vital to appreciate and value life by understanding the preciousness of human life (*M-lue-Rinpoche*) and its impermanence (*me-tagpa*). Thus, values of education form the apparatus that will help the Bhutanese youth to bloom into responsible, productive and compassionate citizens. Students will be encouraged to value:

- *Individual self-discipline*

Bhutanese values emphasizing the *domba nga* or the five lay Buddhist undertakings namely not killing, not taking what is not given to you rightfully, not lying, not consuming intoxicants and avoiding sexual misconduct. This is important for harmonious co-existence, and the practice of *domba nga* is said to foster personal development and accumulation of positive karma or merits. In the present world, respecting self and others, integrity (which involves being responsible, honest, ethical and accountable) and innovation with curiosity (thinking reflectively and creatively) makes an individual discipline oneself.

- *Individual relationship with nature*

This reflects the idea of interdependence which is viewed as, "the fundamental law of nature where all forms of life regardless of religion, law, education survive by mutual cooperation based on their interconnectedness". This philosophy extends reverence to all species, the values of environmental care and protection, aversion to pollution of land, air and water as important aspects of traditional values.

- *Relationship with others in the society*

The idea of *tha damtshig* outlines the sacred commitment to others in society. Students value community and participation for the common good. This is best illustrated in the pairing of duty and obligation between: *pha da bhu gi damtshig* (parent and child), *lobey da lobtu gi damtshig* (teacher and pupil), *nyen da drok gi damtshig* (husband and wife), and *poen da yok gi damtshig* (master and servant). The pairing of duty and obligation reinforces the need for social responsibility. The need for respecting interdependence is featured strongly in traditional societies for pragmatic reasons also. People living in harsh and isolated conditions necessitated that they have cordial relation with community people.

Since culture and values form the bedrock of Bhutanese national identity it is important for the Bhutanese to ensure that their culture and values are transmitted through education. The values should find expression in the school's philosophy, curriculum, classrooms and relationships. With strongly articulated values it is possible to demonstrate it in practices of their everyday actions and interactions in home, school and community (Ministry of Education, Bhutan, 2009, pp. 15-16).

Kenya

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.

The values incorporated in the Kenyan Curriculum Framework, as stated in the Constitution of Kenya, 2010 (Republic of Kenya, 2010), are:

- **Responsibility**
- **Respect**
- **Excellence**
- **Care and compassion**
- **Understanding and tolerance**
- **Honesty and trustworthiness**
- **Trust**
- **Being ethical** (Kenya Institute of Curriculum Development, 2017, pp. 13-14).

4.2   Principles

The Australian Capital Territory (ACT), Australia

4.2.1 Principles underpinning curriculum for ACT schools

Ten principles underpin the curriculum framework for ACT schools and the curriculum decisions that schools make when exercising their school-based curriculum responsibility.

The first two principles lay the foundation for this curriculum framework. Eight principles support schools in making school-based curriculum decisions on the basis of the framework.

They are not presented in priority order. Each is equally important.

4.2.2 Principles underpinning the curriculum framework

1. The framework of the curriculum should identify learning that is essential for all ACT students.

This curriculum framework establishes a core of what is essential learning for every student, from preschool to year 10, in government and non-government schools. The Essential Learning Achievements in the curriculum framework identify what is essential for all students to know, understand, value and be able to do from preschool to year 10.

Decisions about additional 'worthwhile' learning for students in the school are decisions best made by the school and its community.

2. Schools should be responsible for their students' curriculum.

Schools and their communities are best placed to make decisions about curriculum for their students. Schools are responsible for deciding how they will organize their curriculum to maximize opportunities for each student to access learning about the Essential Learning Achievements in this curriculum framework. Schools, in consultation with their communities, may also identify additional 'worthwhile' learning for some or all students for incorporation in the school curriculum.

Teachers, students, parents and other community members have significant roles in making decisions about the organization and delivery of essential learning based on the curriculum framework and worthwhile learning determined by the school.

4.2.3 Principles underpinning school curriculum decisions

3. Curriculum should be based on the belief that every student can learn.

Curriculum decisions should be founded on the belief that, with good teaching and the right support, every student can learn—every student can be engaged, can attain learning goals within a reasonable amount of time and can feel a sense of achievement in attaining these goals. Curriculum decisions should also be based on high expectations of students and their learning.

4. Curriculum should focus on maximising student learning.

Curriculum decisions should begin with the identification of what each student already knows, understands, values and can do, and concentrate on creating the conditions to build on this by implementing the strategies that will maximize the learning outcomes of each student.

5. Curriculum should provide every student with sustained opportunities to learn.

Curriculum should identify what each student should learn, and plan for the provision of ongoing conditions and experiences to ensure that learning occurs. Curriculum decisions should be made about the best ways to organize the essential and worthwhile learning of the school curriculum within years and bands of development in order to provide sustained learning opportunities for students.

6. Curriculum should promote depth of student understanding and expertise.

Curriculum should develop in students a deep grasp of the central concepts and ideas that underpin topics, subjects or disciplines and of the relationships among those concepts and ideas. Curriculum decisions should ensure that the knowledge being addressed in the curriculum focuses on key concepts and ideas, and that students have opportunities to demonstrate meaningful and deep understanding of those concepts and ideas. This principle recognizes that achieving depth requires substantial curriculum emphasis and that excessive breadth leads to superficial learning.

7. Curriculum should be equitable and inclusive.

Curriculum decisions should ensure that all students have access to learning regardless of their race, ethnicity, gender, sexual orientation, ability, disability, physical or intellectual attributes, language, culture, religion, age and social or economic condition. Curriculum decisions should value and include the knowledge, perspectives, cultural backgrounds and experiences each student brings to their learning. The school curriculum should provide opportunities for students to develop intercultural and inter-group understanding and value diversity. It should enable all students to realize their individual potential.

8. Curriculum decisions should be based on ethical practice.

High levels of ethical behaviour are required by all those involved in making decisions about any aspect of curriculum, including intended learning outcomes, content, pedagogy, assessment practices, organizational structures and interactions between teachers and learners. Ethical practice demands that the best interests of the student are kept foremost in mind in all such decisions. It also demands that reasonable measures or steps be taken to ensure all students are provided with opportunities to participate in meaningful and relevant learning experiences.

9. Curriculum should be coherent and aligned.

The school curriculum should make connections: between essential and worthwhile learning; among content selection, pedagogy and assessment approaches; and among years and stages of schooling. Curriculum decisions should ensure learning has value and meaning for students beyond the classroom and school. Schools need to ensure that the curriculum builds coherent connections and makes these clear to students and the community.

10. Curriculum should be dynamic and responsive.

Curriculum is not static. Schools should regularly review their curriculum to ensure it is responsive to: the ongoing needs of the students and the changing world around them; developments in knowledge; evidence-based practice; and new information about student learning, pedagogy and assessment. The flexibility inherent in school-based curriculum responsibility should be fully utilized to achieve a dynamic and responsive school curriculum (Australian Government Department of Education and Training, n.d., pp. 9-11).

SECTION 5 – PHILOSOPHY OF TEACHING AND LEARNING

Principles for P–12 Teaching and Learning

1. Quality curriculum maximizes each student's educational potential

All teaching and learning should be founded in the belief that, with good teaching, the right support and sufficient time, every student can develop knowledge, skills and understanding to achieve at higher levels. Teachers need to believe in their students as learners, have high expectations, and see themselves as responsible for improving the learning achievement of their students.

2. Learning experiences connect with existing knowledge and skills

Teachers determine the required learning for students by identifying what they already know and are able to do and how this relates to the intended curriculum knowledge and skills. Teachers provide multiple opportunities for students to learn what is worthwhile and enduring, using a range of teaching strategies designed to promote the learning of each student over time and in different contexts.

3. Learning experiences are equitable and inclusive

Quality teaching engages all students in learning experiences. This involves valuing and responding to the diverse experiences and knowledge that students bring with them to the classroom from their homes and communities. Every child is an individual with unique capabilities which must be maximized. Lowering expectations is not appropriate.

4. Teaching, learning and assessment are aligned

Quality teaching and learning experiences ensure that what is taught closely reflects the intended learning and that what is assessed reflects what is taught.

5. Learning experiences promote depth of understanding and are connected, purposeful and challenging

Learning experiences should connect with what students already know and extend that knowledge through intellectually challenging work. Activities should be purposeful and relevant, and stimulate inquiry, action, reflection, and enjoyment. Language plays a critical role in enabling students to reflect on their actions and knowledge.

Students should be taught to use language and meta-cognition as tools to ensure their own learning is deep and enduring rather than superficial and temporary.

SECTION 6 – CURRICULUM ARCHITECTURE

As outlined earlier in this document, the term 'curriculum architecture' has been coined to describe the design of the curriculum. It normally consists of an annotated list of the components of the curriculum and a description of the relationships between those components.

There is a strong trend in curriculum design to complement subjects or Learning Areas with other elements, most especially cross-curriculum areas of learning (also referred to as 'cross-cutting themes' or 'horizontal' learning areas). The importance of these should not be underestimated. While subjects (or at least the content they contain) remain central in most national curricula, there are new and emerging areas of learning that are just as important, but which should be the responsibility of all teachers.

These important areas of learning can include issues of particular significance to the country or region or to important life skills and knowledge that are not present in traditional subject content. These identified learning areas should be incorporated into subject syllabuses and teaching plans.

Some examples of Cross-curriculum Areas of Learning are given below:

Australia

The Australian Curriculum has been written to equip young Australians with the skills, knowledge and understanding that will enable them to engage effectively with and prosper in a globalized world. Students will gain personal and social benefits, be better equipped to make sense of the world in which they live and make an important contribution to building the social, intellectual and creative capital of our nation.

Accordingly, the Australian Curriculum must be both relevant to the lives of students and address the contemporary issues they face. With these considerations and the *Melbourne Declaration on Educational Goals for Young Australians* in mind, the curriculum gives special attention to these three priorities:

- Aboriginal and Torres Strait Islander histories and cultures
- Asia and Australia's engagement with Asia
- Sustainability

Cross-curriculum priorities are embedded in all learning areas. They will have a strong but varying presence depending on their relevance to the learning areas (ACARA, n.d.a).

Kosovo

In order to address and promote the values and practices of living together, as well as sustainable development, human rights and democratic citizenry, social justice and social cohesion, it is important that cross-cutting issues are integrated throughout the curriculum in specific ways, in both "carrier areas and subjects", as well as in all the other subjects whose potential can be used for this purpose.

Among such cross-cutting issues and dimensions to be considered are:

- **Education for democratic citizenship and human rights**
- **Education for peace and tolerance**
- **Personal development and life skills**
- **Education for sustainable development**
- **Gender equality**
- **Intercultural education**
- **Media education/literacy**
- **Health education, including sex education**
- **ICT education/literacy and e-learning**
- **Career awareness**
- **Preparation for life and work**
- **Economic awareness**
- **Financial literacy**
- **Entrepreneurial education**
- **Language and communication skills across the curriculum** (Ministry of Education Science and Technology, 2011, p. 43).

SECTION 7 – THE IMPORTANCE OF COMPETENCY

Australia

The general capabilities play a significant role in the Australian Curriculum in equipping young Australians to live and work successfully in the 21st century.

In the Australian Curriculum, capability encompasses knowledge, skills, behaviours and dispositions. Students develop capability when they apply knowledge and skills confidently, effectively and appropriately in complex and changing circumstances, in their learning at school and in their lives outside school.

The Australian Curriculum includes seven general capabilities, as shown in Diagram 8 below.

Diagram 8 – General Capabilities in the Australian Curriculum
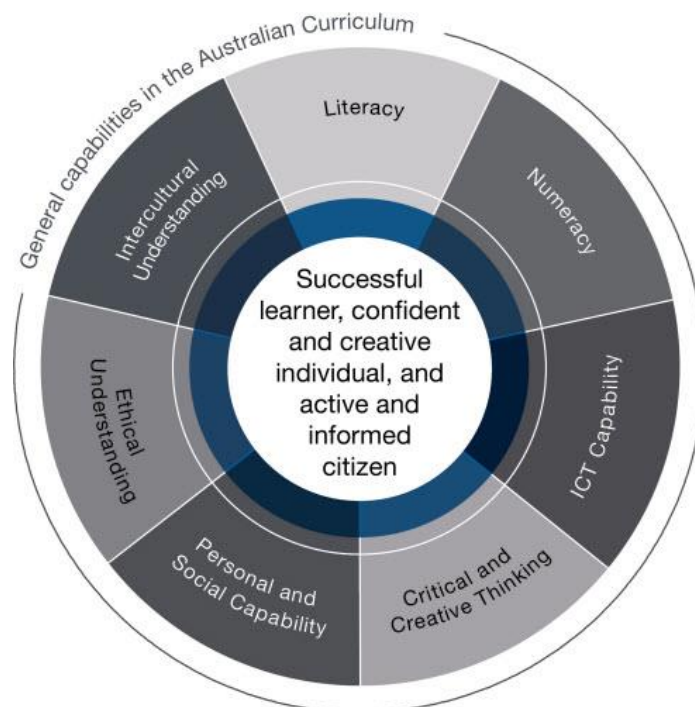
General capabilities in the Australian Curriculum

In the Australian Curriculum, the general capabilities are addressed through the content of the learning areas. General capabilities are identified where they are developed or applied in the content descriptions. They are also identified where they offer opportunities to add depth and richness to student learning via content elaborations, which are provided to give teachers ideas about how they might teach the content. Icons are used to indicate where general capabilities have been identified in learning area content descriptions and elaborations.

Teachers are expected to teach and assess general capabilities to the extent that they are incorporated within learning area content. 'State and territory education authorities will determine if and how student learning of the general capabilities is to be further assessed or reported' (ACARA, n.d.b).

The Basic Education Core Curriculum is aimed at inculcating learners with the following five key competencies:

1. Communication Capacity

Capacity to receive and transmit information; linguistic ability and skills in expressing one's thoughts, knowledge and understanding, feelings and opinions for exchanging information and experience, which will be beneficial to oneself and society; negotiation for solving or reducing problems and conflicts; ability to distinguish and choose whether to receive or avoid information through proper reasoning and sound judgement; and ability to choose efficient methods of communication, bearing in mind possible negative effects on oneself and society.

2. Thinking Capacity

Capacity for analytical, synthetic, constructive, critical and systematic thinking, leading to bodies of knowledge creation or information for judicious decision-making regarding oneself and society.

3. Problem-Solving Capacity

Capacity to properly eliminate problems and obstacles, based on sound reasoning, moral principles and accurate information; appreciation of relationships and changes in various social situations; ability to seek and apply knowledge to prevent and solve problems; and ability for judicious decision-making, bearing in mind possible negative effects on oneself, society and the environment.

4. Capacity for Applying Life Skills

Capacity for applying various processes in daily life; self-learning; continuous learning; working; and social harmony through strengthening of happy interpersonal relationships; elimination of problems and conflicts through proper means; ability for self-adjustment to keep pace with social and environmental changes; and capacity for avoiding undesirable behaviour with adverse effects on oneself and others.

5. Capacity for Technological Application

Ability to choose and apply different technologies; skills in application of technological processes for development of oneself and society in regard to learning, communication, working, and problem-solving through constructive, proper, appropriate and ethical means (Ministry of Education, Thailand, 2008).

SECTION 8 – CROSS-CURRICULUM AREAS OF LEARNING

The examples below demonstrate how countries take individual approaches to this issue. For example, the Australian National Curriculum lists three CCLAs while the Kosovo Curriculum Framework lists 13.

Australia

The Australian Curriculum has been written to equip young Australians with the skills, knowledge and understanding that will enable them to engage effectively with and prosper in a globalized world. Students will gain personal and social benefits, be better equipped to make sense of the world in which they live and make an important contribution to building the social, intellectual and creative capital of our nation.

Accordingly, the Australian Curriculum must be both relevant to the lives of students and address the contemporary issues they face. With these considerations and the *Melbourne Declaration on Educational Goals for Young Australians* in mind, the curriculum gives special attention to these three priorities:

- [Aboriginal and Torres Strait Islander histories and cultures](#)

- [Asia and Australia's engagement with Asia](#)

- [Sustainability](#)

Cross-curriculum priorities are embedded in all learning areas. They will have a strong but varying presence depending on their relevance to the learning areas (ACARA, n.d.a).

Kosovo

In order to address and promote the values and practices of living together, as well as sustainable development, human rights and democratic citizenry, social justice and social cohesion, it is important that cross-cutting issues are integrated throughout the curriculum in specific ways, in both "carrier areas and subjects", as well as in all the other subjects whose potential can be used for this purpose.

Among such cross-cutting issues and dimensions to be considered are:
- **Education for democratic citizenship and human rights**
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- **Gender equality**
- **Intercultural education**
- **Media education/literacy**
- **Health education, including sex education**
- **ICT education/literacy and e-learning**
- **Career awareness**
- **Preparation for life and work**
- **Economic awareness**
- **Financial literacy** (Ministry of Education Science and Technology, Kosovo, 2011, p. 43)

SECTION 9 – TEACHING METHODOLOGIES AND STRATEGIES

Thailand

Learning Management

Learning management is an important process for curriculum implementation. The Basic Education Core Curriculum prescribes learning standards and learners' major capacities and desired characteristics, which are the main goals of children and youth development.

Teachers must carefully select appropriate learning process, and provide learning management in order to foster learners to achieve the quality indicated in the eight learning areas; inculcate and strengthen the desired characteristics, and develop various essential skills.

1. Principles of learning management

In order to enable the learners to attain knowledge and competencies for the learning standards required, major capacities and characteristics as prescribed in the Basic Core Curriculum, teachers should adhere to: the importance of the learners, that they are capable of learning and developing themselves; the learners' benefits; individual differences; the analytical ability; knowledge and morality.

2. Learning process

For learning management through the learner-centred approach, learners will depend on a variety of learning processes that serve as tools for enabling them to achieve the curriculum goals. Among the essential learning processes for learners are: integrated learning process; knowledge-creating process; thinking process; social process; heuristic learning process; learning process from actual experience; process of actual practice; management process; research process; self-learning process; and process of developing characteristics.

Learners should be trained and receive further development for acquiring competence in these processes, which will facilitate their learning, enabling them to achieve the curriculum goals. It is imperative for teachers to study and understand various learning processes in order to be able to make judicious choices.

3. Designing learning management

Teachers are required to study the curriculum of the educational institution concerned in order to understand the learning standards, indicators, learners' major capacities, desired characteristics and learning areas suitable to the learners. The teachers then proceed to design learning management by choosing teaching methods and techniques, learning media/resources, and evaluation measures, so as to allow the learners to develop to their highest potentiality and thereby attain the established goals.

4. Roles of teachers and learners

In regard to learning management enabling learners to attain the quality as prescribed in the curriculum goals, teachers and learners should play the following roles.

4.1 Roles of teachers

Teachers should:

1. Study and analyse learners individually, and then use the data obtained to plan the learning management in order to stimulate and challenge the learners' capacities;

2. Set the targets for the learners in regard to knowledge, skills, process of conceptualisation, principles, relationships as well as desired characteristics;

3. Design and organize learning processes to serve individual differences and intellectual development, so as to enable the learners to attain the goals of learning;

4. Provide an ambience and necessary cares to enable the learners to learn;

5. Prepare and utilize media that are suitable to the activities organized, and use local wisdom and appropriate technologies for teaching-learning activities;

6. Assess the learners' progress through a variety of methods suitable to the intrinsic nature of the subjects and the learners' development levels; and

7. Analyse assessment results for remedial and development actions as well as improve their own teaching-learning methods and activities.

4.2 Roles of learners

Learners should:

1. Set the goals of learning, make plans and take responsibility for their own learning;

2. Seek knowledge, make serious efforts to access learning resources, analyse and synthesize bodies of knowledge, raise questions and search for answers or problem solutions through various methods;

3. Take action, draw conclusions regarding what has been learnt, and apply the knowledge gained to various situations;

4. Interact, work and join in activities organized by their peers and their teachers; and

5. Continuously assess and improve their own learning process (Ministry of Education, Thailand, 2008, p. 27).

Malta

Learning Processes and Effective Pedagogies

The first years of children's lives are significant in the rapid development which they undergo. These are the years where children learn through observation, experimentation, trial and error, exposure to stimulating environments and highly contextualized settings which facilitate their understanding of the world around them. There is significant linguistic and cognitive development; physical and moral development as well as personal, social and emotional development. Indeed, children develop holistically, and progress in any one area influences other areas.

Every child has the right to develop to his/her maximum potential. The foundations for realising this potential are laid down in the Early Years: skills which are extremely useful to face the challenges of daily life can be nurtured in the Early Years' settings. If practitioners capitalize on activities, events and resources which are of particular interest to a child or group of children, they stimulate the youngsters' interest. As a result of sustained interest, motivation develops which in turn supports perseverance as children want to participate in activities willingly and in so doing, they gain confidence and self-esteem.

Development does not occur at the same rate or in the same way for all. Apart from the genetic make-up and personal characteristics, cultures and the social environment have an impact on what and how children learn. Young children come to organized Early Years' settings with their baggage of prior knowledge and understanding. As the children's experiences with the world widen and broaden, their prior knowledge has a bearing on new experiences in that it informs them (they try to make sense of what something is by using previously-acquired information) but with new information with which they are faced, they modify existing knowledge and amend their understanding. Learning occurs when new knowledge and information is internalized and modifies previous understandings.

The learning process is different for individuals because of the variation in both natural and environmental factors. Children receive, react to, interpret and process information differently. With this knowledge in mind, early childhood educators should plan for a curriculum (a programme of activities) which appeals to different cognitive styles. Because of limited experiences and immaturity (limited development) as a result of their age, children thrive on multi-sensory approaches where their understanding of the world around them improves when using all their senses. By relying on what they can see, smell, touch, taste and hear, the likelihood of understanding how things work, drawing conclusions to hypotheses, culminating in understanding cause and effect, and learning how to discriminate and differentiate between contrasting objects increases (Ministry of Education, Employment and the Family, Malta, 2011, p. 14).

SECTION 10 – ASSESSMENT

Zambia

Assessment is an important tool in the teaching and learning process and is used to determine whether teaching and learning have taken place or not. Standardized tests are not the only way of gauging learner achievement. Performance assessments are also used to measure what learners know and can do. These may include:

1. Standard-based projects and assignments that require learners to apply their knowledge skills, positive attitudes and values;
2. Clearly defined rubrics (or criteria) to facilitate a fair and consistent assessment of learner's work and;
3. Clearly defined performance targets at key stages of learning such as Grades 1 and Grade 4.

Therefore, teachers and teacher-educators should create opportunities for learners to benefit from the feedback of teachers and teacher-educators, peers, and outside experts.

It must be noted that using assessments in the classroom enhances learners' achievement levels. It is based on the idea that learners will improve if they understand the aim of the assessment and where they are, in relation to this aim and how they can achieve it.

It, therefore, follows that teachers and teacher-educators should employ varying types of assessments. This should not only be as a way of measuring the learners' strengths and weaknesses, but it should also help learners to get used to the assessment procedures and environment.

Since **Outcomes-Based Education** encourages the parents to take an active part in the teaching and learning process, it is imperative that from time to time, parents/guardians are encouraged to take interest in the education progress of their children. This can be done, for example, by looking at the work their children do at school and by interacting with teachers and school management (Ministry of Education, Science, Vocational Training and Early Education, Zambia, 2013, p. 56).

Lesotho

Assessment will evaluate the attainment of educational and curriculum aims of educational programmes at all levels. Assessment will fulfil different purposes such as:

- Formative (diagnostic and continuous assessment)
- Monitoring of educational progress
- Summative (Selection and Certification)

Guidelines will be provided to facilitate implementation of assessment strategies.

Assessment Strategies

a) Formative Assessment:

Continuous Assessment (CASS) will be used in schools at all levels of education to check the learning progress. It will be used by teachers for *diagnosis* of learning difficulties to identify areas requiring remediation. This will be in terms of quarterly tests, course work, projects, portfolios and practical tests in order to develop higher order skills, attitudes and life skills. Marks of CA results will be used to monitor the performance of learners while national assessment will assess the performance of the educational system.

b) Monitoring of Educational Progress:

i. National educational assessment will be used to monitor the curriculum by checking attainment of defined minimum competencies at different levels of education as

ii. outlined by curriculum aims in pages 8 and 9 of this document. These will be conducted at the end of grades 4, 7 and 9 (form B).

iii. At grade 4 national assessments will be in the form of surveys and analysis will not necessarily cover all learners.

iv. At grade 7, national assessment will be used for two purposes: to check attainment of competencies for individual learners in individual learning areas and their level of readiness to proceed to grade 8 (form A), and to monitor the progress of the education system. Consequently, **statements of success** indicating attainments of candidates in key areas will be available at the end of grade 7. These together with school reports will provide evidence of candidate's performance when a learner is required for transfer from one school to the other.

v. At grade 9 (form B) assessment will be in the form of a national survey focusing on broad educational objectives.

c) Summative (for selection and certification):

i. At the end of grade 10 (Junior Certificate) and grade 12 (Senior Secondary) levels respectively, assessment will be in the form of examinations that are used for selection of learners to higher education levels. Performance will be checked at all learning areas per learner and all learners will be assessed.

ii. Examinations will assess acquired knowledge and skills as defined by the curriculum, namely: knowledge with understanding, application and interpretation, problem solving and analysis, critical thinking and evaluation though various modes such as paper and pencil tests, objective tests, coursework or alternative to coursework papers, practical tests or projects or alternative to practical papers.

iii. Grades will be defined by standards of achievement likely to have been displayed by candidates. Grade descriptions will be interpreted in relation to the syllabus content and not designed to define content. Such grades will depend in practice upon the extent to which candidates have met the overall assessment objectives as outlined.

iv. Each subject syllabus will be graded as an aggregate of the components and will lead to the award of a grade for certification.

v. Both group examinations and subject examinations will be available for candidates of different abilities and circumstances (Ministry of Education and Training, Lesotho, 2008, p. 19).

SECTION 11 – MONITORING AND EVALUATION

Republic of the Seychelles

Quality assurance in education is an integral part of teaching, learning and assessment. In their day-to-day work teachers and school leaders ensure that learning and teaching is done according to the highest standards and expectations, as specified in the national curriculum. They have to bear in mind that they remain accountable for this to students, parents, the Ministry of Education and the wider community. Monitoring, evaluation and review take place at individual student and teacher levels, as well as school and system wide through the Inspectorate system.

Students' self-evaluation

Through a range of assessment activities and reporting on achievements, students develop their own self-assessment skills. In consultation with parents and teachers, and with their support, they are able to set new targets for themselves and aim for higher achievements as they progress through school.

Teachers' reflective practice

Teachers regularly gather, analyse and interpret information on students' learning which provides evidence of their progress and achievements. On the basis of such information, teachers are able to reflect on their teaching and adjust to the various needs of students, as part of an on-going process of self-evaluation and reflective practice. Teachers also share their experiences and students' achievements with others in the school, within regional and national groupings and with parents, using the expected outcomes and achievement standards of the national curriculum, and SQA national standards as baselines. Changes to teaching and learning strategies can then be made at classroom and school levels.

Whole school interventions for improvement

Schools, through the self-evaluation process of school development planning (institutionalized in all Seychelles schools since 1996 with the School Improvement Programme), regularly evaluate learning and teaching, and determine strategies for improvement which are incorporated into the school's action plans. Such strategies may include adjustments in school-based policies, continuous professional development of staff, mentoring, additional support from other providers, closer links with parents, among others. Using learner achievement data, the findings of school self-evaluation and external evaluation reports of the Inspectorate Unit, teachers, curriculum and school leaders can undertake school-based action research to better guide decisions on learning and teaching. This may lead to adjustments in learning and teaching policies and strategies that will enhance student achievement.

Schools are also encouraged to initiate school-based action research in pertinent areas of learning and teaching in partnership with the Centre for Curriculum, Assessment and Teacher Support (CCATS), the support units of Schools Division, the University of Seychelles and other education institutions. Strategies for school improvement have to be evidence-based and anchored in the realities of the school, if they are to have the expected impact on students' learning.

The Centre for Curriculum, Assessment and Teacher Support (CCATS), in partnership with the other support units of Schools Division and the Ministry, plays a key monitoring role in the implementation of the national curriculum. CCATS staff collaborate with and support schools in the provision and production of curriculum resources, the organization of continuous professional development

activities related to specific aspects of the curriculum, school-based and system-wide assessment of student learning and other curriculum related activities. The Centre provides the first line of support to school leaders in curriculum planning and implementation.

The Inspectorate Unit of the Ministry of Education is another close partner in the drive for improvements in learning and teaching. External reviews carried out by the Unit based on agreed national standards provide schools and the Ministry with important feedback on students' and schools' progress in learning and teaching. Both school-based and national policies and strategies for learning and teaching are informed by the Inspectorate Unit's evaluation and findings (Ministry of Education, Seychelles, 2013, p. 37).

Tanzania

Monitoring and evaluation consist of systematic information gathering and making some kind of judgment on the basis of the information. Monitoring and evaluation structures set up within schools as well as nationally will enable all teachers to participate in these processes and contribute to the continuous improvement of the national curriculum.

11.1. Monitoring

Schools need to determine how effective the programme and the methods of instructions are. Education stakeholders shall establish an appropriate system for curriculum monitoring and evaluation. The implementation of the curriculum shall be monitored nationally to track performance continuously against what was planned by collecting and analysing data on the established indicators. Monitoring should be done regularly each year and gaps identified should be addressed. Different monitoring agencies will have different roles:

a. School Inspectorate – monitoring of the curriculum implementation
b. NECTA – Assessment
c. TIE – designing, developing, monitoring and evaluation of the curriculum materials
d. MoEVT – administration and overall education management
e. Professional (subject) Associations – make an impact on their respective subjects by setting standards to be met.
f. School Boards – ensure smooth running of the schools

11.2. Evaluation

Curriculum evaluation is the process of making investigations about the curriculum in order to get data that will guide decision-making. This may lead to curriculum revision, modification or improvement. The data gathered is usually descriptive and it is collected at various stages of curriculum implementation.

The evaluation of the A-Level Secondary school curriculum shall be done by the MoEVT, TIE, MoEVT in collaboration with TIE or TIE in collaboration with other stakeholders. Other education institutions, NGOs, individuals and external agencies can also conduct curriculum evaluation after being granted permission by the government.

There are two types of curriculum evaluation. These are:

a. Formative Evaluation
b. Summative Evaluation

1.2.1. Formative Evaluation

Formative evaluation should be done while the curriculum is being implemented. The aim is to identify prevalent successes, problems and weaknesses so that interventions can be made. Formative evaluation should be done at different levels as shown in the table below:

Level	Main Actor
School	Teachers
District/Region/Zone	Education officers in Districts/ Regions/Zones
	School Inspectors, NGOs, Individuals experts
National	Inspectors, NGOs, CBOs
	TIE, Internal and External agencies

1.2.2. Summative Evaluation

Summative evaluations shall be conducted at the end of the curriculum review cycle. The review cycle is expressed in the number of years expected to elapse before an existing curriculum is reviewed. The minimum review cycle period is equal to the maximum period allocated for a given level of education. Therefore, the review cycle for A-level secondary education shall be two years. In this regard, summative evaluation shall be done after 2 years for the A- level secondary education programmes.

However, summative evaluation shall at times be conducted before completion of the curriculum review cycle for the following reasons:
a. When there is a serious outcry from the public concerning a decline in the quality of education
b. When the government and other stakeholders raise concern that the curriculum needs revision in order to accommodate in current changes such as scientific and technological innovations, globalization and cross-cutting issues; omitting out of date and irrelevant topics, adding new topics, rearranging the sequence of topics from one class to another.
c. When there is a need for improvements to be made in the existing teaching and learning methodologies, assessment methods and quality control mechanisms.
d. When there are changes in the country's education and training policy.

Sometimes summative evaluation can be done before completing the curriculum cycle. This is because of the following reasons:
a. The quality of education becomes low and the society complains about it.
b. There is a need to improve teaching/learning methods.
c. There are changes in education and training policy.
d. There is need to make changes in contents.
e. There is a need to incorporate into the curriculum new knowledge and skills for instance changes in science and technology, globalization, ICT, Cross-cutting issues like environmental education, HIV and AIDS (Tanzania Institute of Education, 2010, p. 38).

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INTERNATIONAL BUREAU OF EDUCATION

Training Tools for Curriculum Development

Prototype of a National Curriculum Framework

This Prototype of a National Curriculum Framework is intended to provide users with a reference for developing a National Curriculum Framework within their own contexts. The Prototype presents in a simulated form of what can typically be found in a Curriculum Framework. The Prototype of a National Curriculum Framework is structured into the following sections:

Section 1: Introduction
Section 2: Curriculum Vision
Section 3: Aims and Objectives
Section 4: Values and Principles
Section 5: Philosophy of Teaching and Learning
Section 6: Curriculum Architecture
Section 7: The Importance of Competency
Section 8: Areas of Learning
Section 9: Teaching Methodologies and Strategies
Section 10: Assessment
Section 11: Monitoring and Evaluation

The Prototype draws on the experience of IBE-UNESCO in a wide range of countries and regions. It should be read and used as an archetype, to be adjusted to national needs and contexts, as the starting point of the actual Curriculum Framework development.

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