



EVALUATION GUIDELINES

FOR

NATIONAL CURRICULUM DEVELOPMENT CENTRE

2023



EVALUATION GUIDELINES

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NATIONAL CURRICULUM DEVELOPMENT CENTRE

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FOREWORD

The National Curriculum Development Centre (NCDC) is mandated by an Act of Parliament to provide learners with the best possible learning experience. For this reason, NCDC established the Department of Quality Assurance and Publishing with the task of ensuring that all curriculum materials developed by both NCDC and the general public provide the best possible learning experience that is nationally and globally acceptable. Therefore, a well-designed curriculum is a crucial component of this experience.

The purpose of these Evaluation Guidelines is to provide a framework for assessing the effectiveness of a curriculum and curricular materials, identifying areas for improvement, and ensuring that the materials meet the needs of learners and the national educational goals.

The Evaluation Guidelines presented here are the result of collaboration between the Department of Quality Assurance and Publishing and the curriculum writers of NCDC. Their collective wisdom and experience have been distilled into this valuable resource, which will serve as a trusted companion for those engaged in curriculum development and evaluation activities. The Guidelines provide comprehensive information on the evaluation process, including the criteria and tools that can be used to evaluate the effectiveness of the curriculum and curriculum support materials.

We believe that these guidelines will be a valuable resource for ensuring that learners receive the best learning experience through the curriculum and support learning materials they receive.

We encourage all curriculum evaluators and developers, and developers of curriculum support materials to use these guidelines as a tool for ensuring quality of teaching and learning in Uganda.

ACKNOWLEDGEMENT

The National Curriculum Development Centre (NCDC) is indebted to the Department of Quality Assurance and Publishing for organising the consultative workshop that provided the platform for generating ideas and experiences that now formed these guidelines.

NCDC is equally grateful to managers and members of user departments for their contributions.

I believe these Guidelines will ease the evaluation and development processes of curriculum and support materials, and enhance their quality for all users in Uganda.

NCDC takes responsibility for any shortcomings that might be identified in this publication, and welcomes suggestions that effectively address the inadequacies. Such comments and suggestions may be communicated to: The National Curriculum Development Centre, P.O. Box 7002 Kampala; or email: admin@ncdc.go.ug or www.ncdc.go.ug.

Dr Grace K. Baguma

DIRECTOR,

NATIONAL CURRICULUM DEVELOPMENT CENTRE

ABOUT THIS GUIDE

These guidelines have been designed to provide evaluation criteria that are comprehensive, systematic and aligned with best practices in education. The Guidelines are to help curriculum developers and writers during the curriculum development stage and the evaluators, editors, proof readers, illustrators, graphic designers and other educators, during the evaluation stage. The guidelines provide information which any writer of educational materials requires so to produce curricular and curricular support materials that meet the desired standards, are aligned to the national goals of education at the different levels and eventually lead to learner achievement. It is important that all users of these Guidelines familiarise themselves with the different parts of the guide, to understand what should be achieved and what aspects of the curriculum should be given importance during the development and evaluation stages.

The key areas to areas to consider when developing and evaluating curricula and curriculum support materials are presented in the criteria and the sample evaluation tools.

The other sections give general information and these include:

Purpose: This section outlines the purpose of the curriculum evaluation and what the evaluation hopes to achieve.

Justification: The justification section shows this resource book as an essential tool for ensuring that educational curricula are effective and aligned with best practices in education.

Reporting: The reporting section outlines how the results of the evaluation are to be reported and to whom they are to be reported to.

Overall, all the sections in the guidelines work together to build the capacity of the materials developer and evaluators to produce quality materials for the different levels of education and for the various purposes.

STRUCTURE OF THE GUIDE

The Guide is structured as follows:

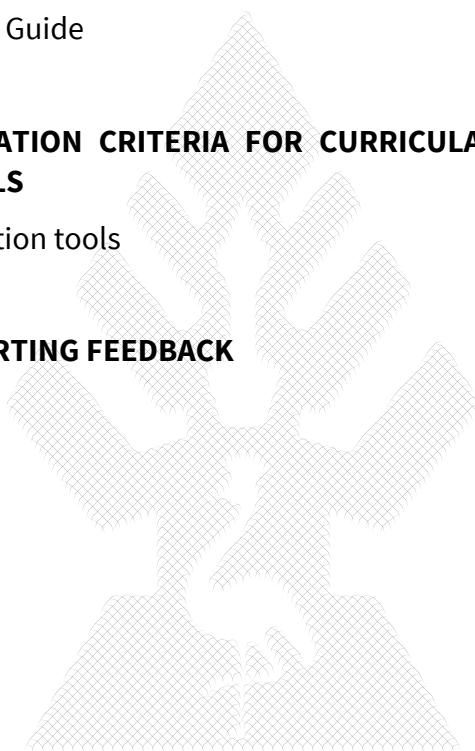
PART ONE: INTRODUCTION

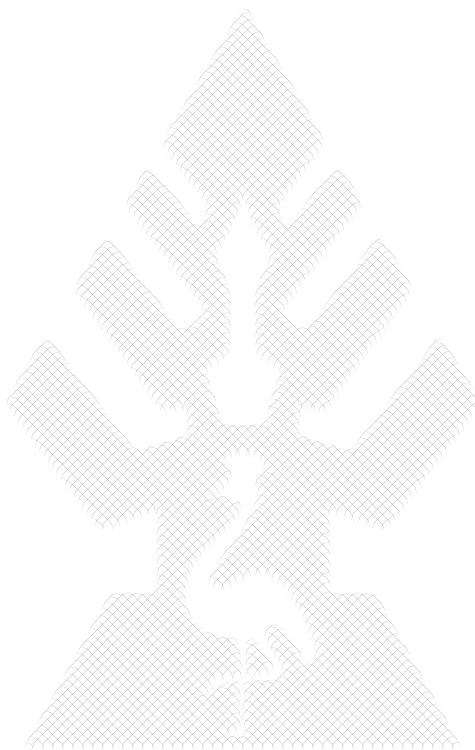
- Background
- Justification
- Purpose of the Guidelines
- Target Users
- How to Use the Guide

PART TWO: EVALUATION CRITERIA FOR CURRICULA AND CURRICULUM SUPPORT MATERIALS

- Sample evaluation tools

PART THREE: REPORTING FEEDBACK





PART ONE: INTRODUCTION

1.1 Background

The National Curriculum Development Centre (NCDC) is a corporate autonomous statutory institution under the Ministry of Education and Sports (MoES) established by the NCDC Act Chapter 135, Laws of Uganda, and as amended in 2021. It is responsible for the development of educational curricula for pre-primary, primary, secondary and some tertiary institutions in Uganda. NCDC's functions include, *inter alia*, initiating processes for curriculum research, review and/or reform, updating, testing and coordinating the implementation of educational curricula at pre-primary, primary, secondary and tertiary levels as well as the promulgation of guidance for the implementation of improved educational curricula and pedagogy.

NCDC evaluates curriculum materials developed both internally and externally, such as syllabus documents and guides, training manuals, research reports, textbook and non-textbook instructional materials, resource books and reading books, in both print and digital forms.

1.2 Justification

Curriculum evaluation guidelines are an essential tool for ensuring that educational curricula are effective, relevant and aligned with best practices in education. Therefore, these Guidelines have been designed to support curriculum evaluators and developers with the following aspects:

1. Ensuring alignment with standards: These Guidelines will help to ensure that curricula and curriculum support materials are aligned with the national goals of education to ensure that learners are learning the skills and knowledge they need to succeed.
2. Identifying areas for improvement: These Guidelines provide clear and objective criteria for identifying areas where the materials are strong and areas where they could be improved. This is intended to help curriculum developers to make informed decisions about how to strengthen the curriculum to better meet the needs of learners.

3. Ensuring checks and balances: These Guidelines provide essential checks and balances to ensure that the curriculum and curriculum support materials are effective and meet the needs of learners.

By using these guidelines to evaluate their curricula, educators can make informed decisions about how to improve teaching and learning outcomes for their learners.

1.3 Purpose of the Guidelines

These Guidelines will be used for the evaluation of curriculum and curriculum support materials, as well as serve as a reference during the development stage. They are to be used as a quality check for curriculum and other curriculum support materials to ensure that teaching and learning meet the set standards across the country. The guidelines are to help in creating documented standards to be followed, so as to eventually produce quality, equitable curricula and instructional materials, as per the NCDC mission.

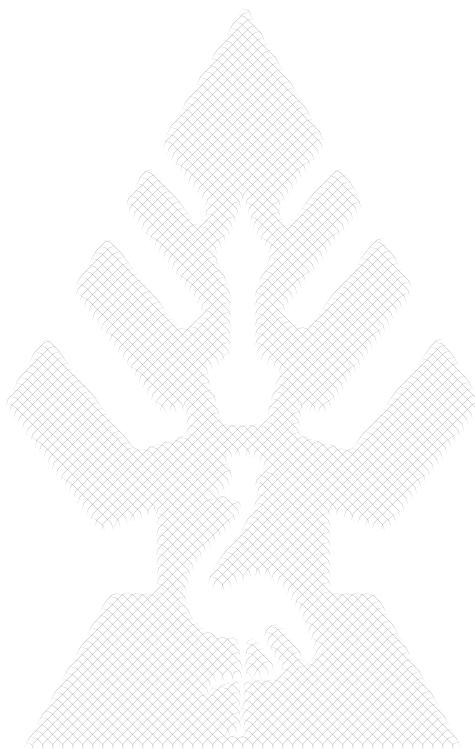
1.4 Target Users

These Guidelines are to be used by the following stakeholders: curriculum developers; authors; publishers; NCDC Quality Assurance teams (reviewers, evaluators, ASB, the Governing Council, editors, proof readers, researchers, illustrators and graphic designers); and all education practitioners.

1.5 How to Use this Guide

The guidelines are to be used during the orientation of new staff and as reference material during the development of the curricula and curricula support materials. The guidance in the guide is to be used to ensure that the critical areas, in the material being developed, have been taken care of. This is done by identifying the category and level of the material, then studying the criteria provided in this guide. For the evaluation stage, the evaluators are to be taken through the criteria and the accompanying sample tool to understand how the scoring and writing of the comments will be done. The criteria has been presented for easier use in a matrices with focus on the attribute for assessment, the score and the comments. The users of the evaluation tools are at liberty to adapt it to suit the nature of the material.

The evaluation tools in the guide, show the key attributes that are to be focused on during the evaluation stage and this should guide the materials developer. The tools are to be used during the curricular development meetings, at department and panel meeting levels and during the evaluation meetings.



PART TWO: EVALUATION CRITERIA FOR CURRICULA AND CURRICULUM SUPPORT MATERIALS

This part of the Guide provides the general criteria for evaluating curriculum materials produced at the Centre and by the general public. It also presents some samples of evaluation tools that will be used to guide the evaluation process of the different teaching and learning resources.

Evaluation Criteria for Curriculum Materials

Every curriculum material has its specific evaluation criteria with detailed specifications. During the evaluation process, evaluators should ensure that the criteria given for a particular material have been adhered to. Therefore, the aspect of conformity with the specifications is paramount in validating the quality of the material.

The following are some of the specifications of the different curriculum materials:

A: LEARNER'S BOOK

a) Coverage of syllabus

The book should cover all:

- i) Topics/modules/units/chapters/themes
- ii) Sub-topics/sub-modules/sub-units/sub-themes
- iii) Learning outcomes
- iv) Competencies
- v) Key technical terms reflected in each topic/unit/module/theme
- vi) Suggested learning activities for each topic, module/unit/chapter/sub-topic/sub-module/sub-themes

b) Coverage of concepts, skills and values for each topic, theme/module/unit/chapter/sub-topic/sub-module/sub-unit

There should be evidence of:

- i) Coverage of all concepts.
- ii) Skills development and application for learners.
- iii) Values to attain

c) Content Coverage

The content should:

- i) Follow the sequence of units/topics/chapters in the syllabus.
- ii) Be relevant.
- iii) Have accurate facts and concepts.
- iv) Be covered within the time allocated in the syllabus.
- v) Cover all the concepts in each unit/topic in the syllabus.
- vi) Develop the suggested learning activities based on the concepts in the topics/units.
- vii) Provide opportunities to acquire appropriate skills as indicated in the syllabus.
- viii) Provide the competency and learning outcomes as specified in the syllabus.
- ix) Be limited to what is needed to cover the learning outcomes.
- x) Be presented from the known to the unknown and in a clear and logical order.
- xi) Reflect keywords derived from the text for each unit/topic.
- xii) Be based on the needs of the learner when he/she leaves school rather than just the needs of those going on to higher studies.
- xiii) Ensure that the presentation of concepts is appropriate to the age and level of ability of learners.

- xiv) Cater for appropriate resource materials/requirements specified for the activities.
- xv) Address/talk to the learner with a variety of activities providing for different learning styles and abilities.
- xvi) Avoid lengthy explanations and descriptions wherever possible.
- xvii) Have a summary of key concepts at the end of each unit/topic.
- xviii) Promote Ugandan issues wherever appropriate, e.g. use of local materials or local explanations.
- xix) Be original with relevant statistics where applicable.
- xx) Be learner-centred and engaging, borrowing from the engaged learning theories.
- xi) Have no chronological errors in processes.
- xxii) Have up-to-date facts and approaches.
- xxiii) Encourage contemporary technologies relating to the 4th Industrial Revolution where applicable.
- xxiv) Integrate modern tools, equipment, methods and gadgets.

d) Level of Language

Ensure that the language used:

- i) Is British English.
- ii) Is simple, clear and appropriate for the target level of learners of average ability across the country.
- iii) Is acceptable, standard and grammatically correct.
- iv) Represents technical terms/concepts correctly.
- v) Develops vocabulary related to the specific subject.
- vi) Is clear, readable and easy to understand.
- vii) Free from spelling and grammatical errors.
- viii) Gives clear and easy-to-understand instructions to the learner.

e) Learner's Activities

The learner's book should:

- i) Be appropriate to the intended level.
- ii) Be relevant to and underpin syllabus content.
- iii) Be diverse.
- iv) Have clear instructions.
- v) Be realistic in terms of expectation of equipment and expertise.
- vi) Be activity-based; activities should range from individual to group work.
- vii) Contain a mixture of tasks or problems to be solved; exercises should contain tasks that require and provide opportunities for learners to demonstrate achievement of a number of generic and practical skills, values and attitudes, and not just knowledge and understanding.
- viii) Have activities based on stimulus materials in the form of tasks, case studies, pictures, diagrams, tables, stories, poems, cartoons and research, crossword puzzles, situations and any other appropriate assignment that promotes learning.
- ix) Have activities interlinked with text as a pattern throughout rather than a passage of text followed by testing activities as in traditional books.
- x) Have activities that cater for individual differences in children, including those with special education needs, such as gifted learners and time-takers.
- xi) Have exercises which are challenging and encourage discovery, critical thinking, creativity, problem solving and interactivity.
- xii) Have activities that develop the learner's ability to solve a community problem by offering a service or product, where applicable.
- xiii) Have tasks that lead to skills development in the occupation, where applicable.

- xiv) Have activities that cater for the development of both hard and soft skills.
- xv) Have tasks that promote occupational safety, health and environmental awareness.
- xvi) Have examples that are appropriate to the learner's competency level.
- xvii) Have learning activities that are suitable to the competency level of the learner.
- xviii) Have tasks that build the learner's competency in relation to the world of work.
- xix) Have tasks that build the learner's competency for progression.

f) Illustrations

Illustrations should:

- i) Be in full colour.
- ii) Be of quality, correctly placed, relevant and able to enhance understanding of the content.
- iii) Be balanced with activities and text.
- iv) Be derived from the learner's experience, environment, fieldwork or projects and as clear as possible.
- v) Support the content, be appropriate and, where possible, Ugandan in context.
- vi) Be related to the text to enhance the learner's understanding of the content.
- vii) Be suitable for the target group.
- viii) Conform to cultural norms and diversity.
- ix) Be accompanied by captions/numbers/labels as appropriate.
- x) Be original, and if outsourced, acknowledge the source.
- xi) Be sensitive to for example gender, religion and socioeconomic backgrounds.

- xii) Be relevant to the occupational competency level, where applicable.
- xiii) Be accurate in relation to the occupation, where applicable.
- xiv) Be of an appropriate size.
- xv) Be of an appropriate resolution (dpi).

g) Assessment

Assessment activities should:

- i) Be appropriate and varied within and at the end of each unit/topic aimed at enhancing further learning and checking whether the desired competence has been acquired.
- ii) Cater for the three levels of learning abilities, i.e. knowledge, comprehension and application.
- iii) Cater for individual achievement of competences.
- iv) Cater for individual differences and learning abilities.
- v) Be relevant to and depict real-life situations.
- vi) Include practical work, projects and take-home activities to be done in the school and learner's local area.
- vii) Include an activity of integration, where appropriate.

h) Sensitivity

The material should:

- i) Deal carefully with any contentious issue (especially cultures, religion and gender) in consistency with local the environment/context.
- ii) Portray persons and events positively and objectively. Avoid pictures of, for example, half-naked persons, illustrations of ideas leading to alcoholic drinks, eating of pork etc. Decent dressing and a decent lifestyle should be portrayed.

- iii) Represent national groups and minorities in a way that is fair to them and their beliefs.
- iv) Be sensitive by portraying males and females as equals, including illustrations of learners with disability and generally catering for diversity such as in religion and economic background.
- v) Use localised examples that are familiar to the learners that depict the Ugandan environment.

i) End Matter

The end matter should provide:

- i) A glossary of terms.
- ii) References.
- iii) An index, where appropriate.
- iv) Appendices/websites at the end of the books, as appropriate.

j) Layout and Physical Appearance

- i) The cover page should reflect the subject in terms of illustrations/icons/drawings.
- ii) Page layout should be user-friendly.
- iii) The spacing and margins should be well catered for.
- iv) Perfect binding with stitching: Binding (for books below 60 pages, saddle stitching should be used; books with over 60 pages should be thread sewn and perfect bound for durability).
- v) The spine should also carry the title.
- vi) The quality of paper should be matte paper with appropriate grammage, as applicable.
- vii) The book cover should be laminated, as applicable.
- viii) Page numbers should be placed appropriately.

- ix) The following should be included:
 - Cover page
 - Title page
 - Table of contents
 - Preface
 - Acknowledgments
 - Blurb
 - Level of class to use the book
 - Publisher's name
 - Specific purpose, e.g. Learner's Book, Reader etc.
- x) Books should be serialised, i.e. Book 1, Book 2, Book 3 etc., where applicable.
- xi) Pages should look attractive to the learner.

B: TEACHER'S GUIDE

The Teacher's Guide should provide:

- i) A sample scheme of work and a lesson plan.
- ii) The procedure for teaching different concepts.
- iii) Guidance on developing skills.
- iv) Guidance on conducting lessons and the interventions of the teacher.
- v) Explanations of methodological concepts.
- vi) The duration and pace of learning.
- vii) Additional activities to cater for generic skills and for high and low achievers.
- viii) Guidance on how to teach large classes.
- ix) Answers for exercises given in the Learner's Book.
- x) Guidance on lesson planning as well as giving notes on individual lessons; help with devising project work, homework and testing and evaluation.

- xii) Additional assessment activities to cater for gifted learners and time-takers.
- xiii) Additional content for the teacher.
- xiv) Suggestions for the use of low-cost/no-cost materials. Encourage the teacher to have these materials ready for use well in advance. Indicate the audio-visual materials and ICT equipment required.
- xv) Clear and error-free text.
- xvi) Cross-referencing to the Learner's Book.
- xvii) Support for learners with special learning needs.
- xviii) Logical design and presentation of the content.
- xix) Ease of use by the teacher.
- xx) End matter such as references, e-resources.
- xxi) Guidance to the teacher on resources to be used.
- xxii) Background/overview: Briefly provide information on what the unit/topic is about, why the unit/topic is important to teach at this level, and how it is going to be addressed. Encourage teachers to do some research and additional reading on the unit/topic to support the information given here.
- xxiii) Learning outcomes: These can be copied from the syllabus document. They should not be adjusted.
- xxiv) Teacher preparation: Point out things the teacher will need to do ahead of the lesson.
- xxv) Definition of new concepts/terms used in the activities/lesson: The teacher should ask the learners to explain the new terms in their own words to minimise cramming/rote learning.
- xxvi) Methods: Consider learner-centred and environmentally friendly approaches that the teacher may choose to deliver the activities so as to achieve the set of learning outcomes.
- xxvii) Time: Allocate an estimated amount of time for each activity.

- xxvii) Procedure: List the steps the teacher can follow in conducting the activity. The teacher should follow the procedure as closely as possible so that the target skills and knowledge are acquired. The class activities should be clear.
- xxviii) Assessment mode: Guide the teacher on how to assess the learner in the classroom environment. Emphasise formative assessment.
- xxix) Follow-up activities: Guide the teacher on the activities that need to be done by either him/her or the learner outside the classroom.
- xxx) References: Guide the teacher on the appropriate references that can be used during the teaching and learning process.

C: SUPPLEMENTARY MATERIALS (READING BOOKS, PLAYS, INSPIRATIONAL MATERIALS, POEMS, SONGS, MAPS, ATLASES, CHARTS, READING CARDS AND NUMERACY CARDS)

General Guidelines

Reading books, plays, inspirational materials, poems and songs is intended to develop language competencies; consolidate what was learnt in a specific subject; consolidate the concepts and competencies developed in previous classes; enhance the development of life skills, attitudes and values across subjects; and reinforce the reading culture.

In the process of evaluating the above materials, the evaluator should pay particular attention to the following aspects:

Conformity with the curriculum

The materials should:

- i) Be designed based on the themes or topics in the given syllabus.
- ii) Be fiction or non-fiction written in an appropriate form.
- iii) Have vocabulary progressing from simple to complex.

Content

The materials should:

- Support the themes/topics in the syllabus.
- Be flowing and interesting.
- Be appropriate to the class level.
- Be relevant to the learner's experience.
- Be original.
- Cater for the development of life skills and values.
- Cater for individual learning needs.
- Cater for the development of the major language skills, that is, listening, speaking, reading and writing.
- Use language suitable to the level of the learners.
- Have a positive ending with lessons learnt, where applicable.
- Teach moral lessons.
- Have a well-developed plot, where applicable.
- Have a provision for recurrence and use of new vocabulary and keywords.
- Allow practice of vocabulary and structures learnt within the class level.
- Provide a glossary at the end, where applicable.
- Have clear teacher's notes explaining how they should be used.
- Be imaginative and inspirational.
- Use musicality and beauty to convey the message effectively, where applicable.
- Use realistic characters, whether humans/animals/birds, to portray societal issues.
- Use word economy and an appropriate style, where applicable.
- Be recitable/singable where applicable.
- Have correct and appropriate messages.
- Be tuneful (attractive and enjoyable), where applicable.
- Be sensitive in areas such as gender, physical impairment.
- Be in suitable media for the target audience.
- Prompt the development of learning competences.
- Have clear instructions and expectations.

- Include cross-cutting issues such as:
 - Awareness of Uganda's cultural and environmental diversity
 - HIV and AIDS
 - Pandemics such as Ebola, COVID-19
 - 21st Century skills
 - Inclusivity component to cater for gender and special needs among others
 - The use of ICTs
 - Ethical issues

Illustrations for reading books, plays, inspirational materials, poems and songs, maps, atlases, charts, reading cards and numeracy cards

The illustrations should:

- Be relevant to the material.
- Be appropriate to the age group.
- Have suitable captions, where applicable.
- Cater for cross-cutting issues.
- Be in full colour.
- Be attractive.
- Conform to gender and cultural diversity.
- Accommodate learners with special needs.
- Be of an appropriate size.
- Be accurate.
- Be proportionally drawn.

Assessment

The material should provide assessment activities:

- That are in-built and at the end, where applicable.
- That evaluate knowledge, comprehension and application needs.
- That are varied and aimed at assessing creativity, appreciation, imagination, visualisation and a positive attitude.
- That cater for special educational needs.

Packaging

Durability of design

Durability of the pack

The package indicates the number of items packed

The package is properly labelled

Dictionaries (Monolingual and Bilingual)

Dictionaries for local languages are written as Local Language-English or English-Local Language following the approved orthographies. The following aspects are vital when evaluating dictionaries:

Quantity of information the dictionary offers:

Number of entries

Range of vocabulary

Determine whether the dictionary had adequate coverage of up-to-date, technical, international and, if appropriate, regional lexis (for size and scope)

Meanings

At least each entry has one core meaning to which a number of senses may be attached

New words (when compared to other dictionaries being evaluated)

Synonyms

Pronunciation

Etymology (origin and development of words)

The use of subject and usage labels

Quality of information presented in the dictionary

Correctness of information

Accuracy of information

- Completeness of information
- Clearness of information
- Simplicity in presenting the information
- Modernity in terms of the number of current words included in the dictionary

Grammar:

- Adequate coverage of grammatical aspects as per the approved orthography
- Representation of information for effective access, paying special attention to:
 - o irregular forms of verbs
 - o noun countability (countable and non-countable)
 - o comparative and superlative forms of irregular adjectives
 - o collocations

a) Effectiveness of the presentation of information

- Sense division
- Adequacy of the lexical description
- Order of arrangement of entries
- Ordering of senses (how straightforward it is for the user to find the desired sense)
- Defining:
 - Adequacy of the definitions
 - Ease of comprehension
 - Alphabetisation
 - Use of controlled/limited vocabulary to achieve full understanding of the meaning of a lexical item
 - Whether they are stylistically appropriate for the intended user or not
 - Accurate
 - Clear
 - Consistent
 - Neutral/unbiased
 - Substitute

- Presentation of pronunciation
 - Transcription system
 - Accent to be represented
- Typography
 - Typeface
 - Font size
 - Spacing
- Word formation
 - The account of word formation enables a user to ascertain the formal (morphological) relations between words
- Homographs (words spelt the same as other words but have different meanings and sometimes different pronunciations)
 - Presented as headwords for proper lexical description as well as for accessibility
- Examples
 - Extent of the use of examples
 - Role they are seen to play in exemplification
 - Where the examples come from (corpus or invented)
 - How consistently the dictionary's policy on examples is implemented
- Etymology
 - Information in the dictionary under review is appropriate to its size, purpose and intended users.
- Special features, e.g. synonym essays, boxed comments, usage notes etc.
 - Should add to the lexical description, coverage and usefulness of the dictionary

b) Beyond definition/additional information (lexical relations, collocations, connotations etc.)

- Usage: consistent in using usage labels and how they are applied
- Synonyms
- Antonyms
- Related words and phrases

D: MULTIMEDIA AND DIGITAL RESOURCES

Similar to other teaching and learning resources, digital resources are used in a variety of contexts for various purposes. This entails that a given resource can have an educational quality in one particular setting, though not necessarily in another setting.

The guidelines for evaluating digital teaching and learning resources have been categorised into two aspects; the educational aspect and the technical aspect.

(i) Educational Aspect

Many general-quality areas such as structure, language, use of illustrations pertain to all learning resources, regardless of whether or not they are digital. As much as possible, these criteria will mainly focus on the elements that pertain specifically to digital teaching and learning resources.

Evaluation Criteria for Digital Teaching and Learning Resources

The evaluation criteria have been organised in three broad categories:

- **User dimension:** accessibility of the resource and the interface between user and resource.
- **The distinctiveness of the digital resource:** the possibilities and limitations of the digital resource.
- **Subject and education dimension:** the educational and evaluation potential.

The categories are defined by a set of key questions, a brief description, and a few in-depth questions that are intended to promote reflection on the quality in the relevant areas.

User dimension

Does the digital learning resource create interest?

Description	In-depth questions
The resource: Should help activate and motivate the pupils. Must be relevant to the subject being taught.	What type of functionality helps create interest, and how do the design and layout contribute to this? How are images, graphics, video, sound and so forth exploited to create interest? What choices have been made to ensure that the resource will promote teaching and learning and not merely activity and entertainment?

Is the digital learning resource inclusive and accessible?

Description	In-depth questions
The resource should: Be easy to use and as self-explanatory as possible. Follow familiar patterns for navigation and retrieval. Not exclude users on the basis of ethnic or social background or gender.	How efficiently can the learner start working on the subject matter (not waste time on navigation)? How does the resource enable as many as possible to use it? To what extent can the resource be adapted to the individual learner, and how is adequate differentiation facilitated? How can the learner's media skills be utilised and developed?

Quality Requirements

The learning resource:

Enables individual differentiation.

Uses the digital medium with the learner's learning in mind.

Addresses the target audience in an engaging manner.

Has a universal design.

Is self-explanatory.

The distinctiveness of the digital resource

How does the digital teaching and learning resource utilise the inherent possibilities of digital media?

Description	In-depth questions
Resources should: Include various media forms such as text, images, video, animation, simulations etc. Select and incorporate the media forms on an educational basis.	In what ways can the user use a variety of media forms in the resource? How does interactivity (if such exists) help capture the learner's interest in the subject? How is it ensured that the presented information is up-to-date?

Is the digital teaching and learning resource adaptable?

Description	In-depth questions
The resource should: Be able to be adapted to different contexts. Enable the use of individual components in different contexts (modular use).	How does the digital learning resource enable individual components to be used independently? To what degree does the resource allow the learner to adapt the contents to his or her educational context?

How does the digital teaching and learning resource enable new educational possibilities that are lacking in traditional learning resources?

Description	In-depth questions
The resource should facilitate a varied teaching and learning practice through: The use of various media forms. The use of communication resources. Solid access to updated information.	Does the resource enable communication between learners, between teacher and pupil, and between others? How does the resource challenge the learners with regard to the subject matter? To what degree are links provided to alternative sources and updated information? How are the specific capabilities of various media forms used in the learning work? To what degree is the resource innovative, and how can it help teach the subject matter?

Quality Requirements

The teaching and learning resource:

Enables interaction with the learner.

Uses communication to reinforce the teaching and learning work.

Allows its contents to be updated.

Is inspirational.

Utilises the specific capabilities of various media in the teaching and learning work.

Subject and Education Dimension

How is the digital teaching and learning resource relevant for the curriculum?

Description	In-depth questions
<p>The resource should:</p> <p>Be relevant for the current curriculum.</p> <p>Indicate how various goals in the curriculum are to be achieved.</p>	<p>How is the teaching and learning resource relevant for the curriculum and the competence objectives?</p> <p>Is the teaching and learning resource suitable for achieving the goals that have been defined?</p> <p>Is the resource intended for a certain age or target group? How is it designed so as to reach any such target groups?</p>

Does the digital teaching and learning resource enable an evaluation/assessment that is adapted to the education setting?

Description	In-depth questions
The resources should: Have built-in possibilities for evaluation, for example tests. Be able to be used for or be incorporated into formative and/or summative evaluation.	To what degree does the resource support different forms of evaluation? To what extent does the resource enable the learners to evaluate their own work themselves? How can the resource help the learners to reflect following the evaluation? Does the resource allow the learners to give feedback to and evaluate one another? How does the resource support the learners in their further work following the evaluation (in the event of such an evaluation)?

In which education settings is the digital teaching and learning resource suitable?

Description	In-depth questions
The resource should: Be suited for: individual work. teacher-led activity. group work etc. Contain a Teacher's Guide.	How does the digital teaching and learning resource facilitate use in a variety of teaching and learning contexts? How does the digital teaching and learning resource support collaborative learning? To what degree can learners and teachers add their own contents to the resource? To what degree does the Teacher's Guide (if such exists) provide useful ideas?

Quality Requirements

The educational resource:

Is relevant for current curricula.

Supports collaborative learning.

Is well suited to the target group.

Has built-in evaluation capabilities.

Can be supplemented with user content.

Contains a Teacher's Guide.

(ii) Technical Aspect

As was the case with the educational criteria, we must also evaluate the relevance of the technical requirements and recommendations with regard to usage area and distinctiveness.

a) Accessibility

The use of ICT is an integral part of education, and the option to adapt digital resources to the individual's needs is therefore critical. A prerequisite for such adaptation is that the digital learning resources have been designed in accordance with the principles of universal design. Universal design is the design of products and environments in such a way that they, as much as possible, can be used by everyone without the need for adaptation or a special design.

b) Metadata tagging

A digital learning resource should be described by means of metadata, that is, data about data. The purpose of tagging digital learning resources with metadata is to make it easier to retrieve, reuse and manage the resources. A metadata specification indicates how the resources are to be described. Agreeing on a common specification for how to write metadata serves to facilitate a homogeneous description of resources and the exchange of metadata between different systems.

c) **Conditions of use**

It is important to include the terms and conditions of using digital material. The focus should be on whether the conditions of using the resource are in line with the planned use in the education setting. In addition, information concerning the cost of using the resource, licensing terms concerning the possibility of modifying the resource, sharing the resource with other parties, and so forth should be included.

d) **Technical interoperability**

The purpose of the technical quality criteria is to ensure that digital teaching and learning resources can be used regardless of operating system and web browser. The basis for selecting the given formats is that they are based on open standards, are widespread, and have good built-in support or can be used with plug-ins or software that are readily available for most operating systems and web browsers.

Some of the proposed formats include but are not limited to the following:

1) Document format:

- HTML/XHTML for digital teaching and learning resources designed as webpages
- PDF for finalised documents
- Word-processed files for documents that are to be edited

2) Images and graphics:

- JPEG, PNG or GIF

3) Audio and video:

- MP3 or MP4

Adapted from: Lindstrom (1994).

E: PRE-READING MATERIALS

Pre-reading materials include: wall charts, picture cards, letter cards, word cards, large story books, poster, jigsaws, lotto game, quiz, dominoes, flash cards, building blocks, reading tree, picture books, fishing game, puzzles, word bank, matching cards, picture story sequence, cut-outs, word box, clock face, picture word puzzle, word wheel, picture word matching, simple calendar.

What to consider when evaluating pre-reading materials (Baby Class – P3)

Category of Items	Aspects to Consider
1. Reading materials for storytelling and picture talk	<p>Story sequence picture cards (4-5pcs) of A4 size</p> <p>A set of picture cards of:</p> <ul style="list-style-type: none"> i) Common domestic and wild animals (A4 size) ii) Fruits iii) Plants iv) Birds
2. Materials for sorting and matching	<ul style="list-style-type: none"> i) Cut-outs of square, circle, rectangle and triangle ii) A set of number dominoes (1-10) iii) Picture dominoes of common household objects iv) Shape dominoes (basic shapes) v) 4 sets of picture-to-picture lotto game of A6 size cards and a board of A4 vi) 1 set of 26 letters (A-Z lowercase)
3. Other items to promote reading skills	<ul style="list-style-type: none"> i) Wooden beads (assorted colours, red, blue, and green, yellow) ii) Sets of 2-piece jigsaw puzzles iii) Sets of 3-piece jigsaw puzzles iv) 1 shape sorter of four different shapes in 4 different colours v) Number line (0-10) clearly marked with simple objects

Category of Items	Aspects to Consider
	vi) Counting frame of 1ft. with boards on rods in the order of 10 green,10 blue,10 red and 10 yellow
Durability	i) They easily break ii) Good storage for the material
Safety	i) No sharp edges ii) Material should not be harmful to children (in terms of touch, sight, hearing, taste, being poisonous)
Conformity with the designed curriculum	Materials enhance the teaching and learning of the aspects in the curriculum

F: SPECIFICATIONS FOR THE BUILDING BLOCKS

1. 20 cubes – (4 x 4 x 4) cm- colour (blue, yellow, green and red)
2. 20 cubes – (8 x 8 x 8) cm- colour (blue, yellow, green and red)
3. 20 rectangular blocks – (8 x 3 x 2) cm (blue, yellow, green and red)
4. 20 rectangular blocks – (12 x 6 x 3) cm (blue, yellow, green and red)
5. 20 triangular blocks – (12 x 12 x 12) cm (blue, yellow, green and red)
6. 20 triangular blocks – (12 x 6 x 10) cm (blue, yellow, green and red)

G: SAMPLE EVALUATION TOOLS

Sample Evaluation Tool for a Textbook and Other Text-Based Curriculum Support Materials

1. Appropriateness of content

Guiding Statements	Score Range						Comment
	5	4	3	2	1	0	
Addresses all the topics on the syllabus for the target users							
Has well thought-out introductions to the different sections that are attractive and relevant							
Uses demonstrations to simplify the learning process							
Has a balanced coverage of all learning outcomes on the syllabus							

2. Appropriateness of Language

Guiding Statements	Score Range						Comment
	5	4	3	2	1	0	
The length of sentences is within the range recommended for the target users							

3. Appropriateness of Learning Methodologies/Pedagogy/Andragogy

Guiding Statements	Score Range						Comment
	5	4	3	2	1	0	
The material introduces the learning content the learners from known to unknown							

4. Attractiveness of Design and Layout for Target Learners

Guiding Statements	Score Range						Comment
	5	4	3	2	1	0	
The material should be well designed.							

5. Use of Images and Illustrations

Guiding Statements	Score Range						Comment
	5	4	3	2	1	0	
Be in full colour							
Be of quality, correctly placed, relevant and able to enhance understanding of the content							
Be balanced with activities and text							

6. Integration of Cross-cutting and Emerging Issues

Guiding Statements	Score Range						Comment
	5	4	3	2	1	0	
Be sensitive to cater for inclusivity							
Address special educational needs							
Provision of opportunities for ICT use							

7. Assessment

Guiding Statements	Score Range						Comment
	5	4	3	2	1	0	
Be appropriate and varied within and at the end of each unit/topic and aimed at enhancing further learning and checking whether the desired competence has been acquired							
Cater for the three levels of learning abilities, i.e. knowledge, comprehension and application							
Cater for individual achievement of competences							

Sample Evaluation Tool for Teacher's Guide for ECCD Level (P1 – P3)

This instrument is meant to guide in the evaluation of materials developed to support the lower primary level in the area of literacy skills development in accordance with the curriculum. The evaluators are expected to check several aspects of the material which include:

i) Preliminary Information

- Introduction to the resource book
- Purpose of the book
- How to use the book

ii) Structure and Layout

S/N	Item	1	2	3	4	Total	Comments	Recommendation
1.1	Themes							
	<i>Does the Teacher's Guide follow the Curriculum?</i>							
	Themes coverage							
	Sub-theme coverage							
	Order of presentation according to terms							
1.2	General layout							
	Cover page: with title, class and learning area in the local language							

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	Clearly marked terms							
	Clearly marked weeks							
	Days/lessons							
	Procedure for teaching							
	Time allocation (number of lessons)							
	Competences							
	Activities							
	Page numbers							
	Sections							
	<i>Do the lessons in the Teacher's Guide comply with the time allocated to different learning areas</i>							
	Literacy 1							
	Literacy 2 (Writing)							
	News							
	Oral literature							

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	Library							
	Local language (P4)							

iii) Curriculum Competences

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	<i>Does the Teacher's Guide cater for the development of specific literacy competences prescribed in the curriculum?</i>							
	Literacy 1 (Reading)							
	Letter name							
	Syllables							
	Words							
	Sentences							
	Stories							
	Comprehension questions							
	Literacy 2 (Writing)							
	Letters/letter patterns							
	Words							

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	Sentences							
	Name writing							
	Oral literature							
	Storytelling							
	Story listening							
	Oral comprehension							
	News							
	News telling							
	News drawing							

iv) Instructional Support

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	Does the Teacher's Guide assist the teacher in teaching the intended lesson by providing:							
	Guidance on appropriate learner-centred methods of literacy instruction							

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	Provision of appropriate examples							
	Guidance on how to use the Learner's Book							
	Guidance on assessment							
	Guidance on how to handle activities in the Learner's Book							
	Suggestions for appropriate instructional materials							
	Sample answers to learner's exercises							
	Support on how to handle instructional challenges, for example, large class							

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	sizes, learners with special learning needs							
	A sample timetable							
	A sample lesson plan							
	A sample scheme of work							
	Additional references and support							

v) Methodology

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	<i>Does the Teacher's Guide demonstrate the use of varied learner-centred methods for teaching literacy by integrating:</i>							
	Phonemic awareness (integration of sound activities and games)							

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	<p>Phonics (use of speech sounds as a method to teach reading/writing)</p> <ul style="list-style-type: none"> - letter name - letter sound - blending syllables and words - segmenting words - teaching non-decodable words 							
	<p>Collaborative learning</p> <ul style="list-style-type: none"> - Evidence of small group and pair activities 							
	<p>Multi-sensory</p> <ul style="list-style-type: none"> - Evidence of activities that cater for a variety of learner senses 							
	<p>Print awareness</p> <ul style="list-style-type: none"> - Evidence of guidance to basic understanding of print 							

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	Oral language - Evidence of use of oral texts such as poems, rhymes, riddles, songs to teach literacy							
	Whole word - Evidence of teaching non-language blocks, e.g. in non-decodable (tricky) words							
	Integration - Evidence of use of integrating other strands like numeracy, RE							
	Scaffolding (gradual release) - Evidence of supporting learner literacy skills by modelling proper language use							

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	- Evidence of use of learner prior knowledge							
	Syllabic method - Evidence of use of specific language blocks/units for:							
	Presenting vocabulary							
	Presenting structures							
	Using short dialogues							
	Teaching through songs							
	Teaching through games							
	Teaching through role-play and acting							
	Teaching through situational games and playlets							
	Teaching through rhymes, riddles, tongue twisters							
	Teaching through speeches							

vi) Continuous Assessment

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	Language skills Does the Teacher's Guide provide assessment activities that cater for holistic literacy development by focusing on basic skills- <i>listening, speaking, reading and writing?</i>							
	Alignment Are the assessment items tagged to the activities covered within the lesson/sub-theme /theme?							
	Language Are the assessment items clearly stated using simple clear language?							

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	Level of difficulty Do the assessment items cater for the different cognitive demand levels?							
	Use of Assessment							
	Is there evidence of use of assessment results to inform instruction?							
	Is there evidence of remediation?							
	Is there evidence of management of assessment results, say records?							

vii) Language Scoping and Sequencing

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	<i>Does the Teacher's Guide cater for the development of language aspects as guided in the curriculum?</i>							
	Vocabulary							
	Does the Teacher's Guide demonstrate use of vocabulary in meaningful expressions?							
	Are learners given opportunity to use the vocabulary in sentences on their own?							
	Are learners provided opportunities to explore related vocabulary by use of other forms, for example, following tense, plural, synonyms, opposites?							
	Are vocabulary items reflected in other language tasks, for example, stories and structures?							

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	Are vocabulary items reflected in illustrations used?							
	Grammar							
	Does the book present grammar following curriculum scope and sequence?							
	Are learners given opportunity to apply grammar rules in meaningful expressions?							
	Are the grammatical aspects used in texts?							
	Structures							
	Does the Teacher's Guide reflect the structures prescribed in the curriculum?							
	Does the Teacher's Guide demonstrate the use of the structures in meaningful sentences?							
	Do the target structures feature in the texts?							

viii) Basic Language Skills

S/N	Item	1	2	3	4	Total	Comments	Recommendation
	<i>Does the Teacher's Guide provide activities that cater for the development of basic language skills?</i>							
	Listening							
	Active listening							
	Listening comprehension							
	Speaking							
	Fluency of speech							
	Free expression							
	Creativity							
	Reading							
	Reading fluency							
	Reading speed							
	Accuracy							
	Comprehension							
	Writing							
	Handwriting							
	Writing convention							
	Writing creatively							

ix) Cross-cutting Issues

S/N	Item	Total	Comments	Recommendation
	<i>Does the Teacher's Guide support the learner in addressing issues including</i>			
	Sensitivity such as gender			
	Environment protection			
	HIV and AIDS			
	Violence against children			

Instruction on rating scale: One is required to put a **tick** in a box depending on the evaluation. **Take note:** 1- weak; 2 – fair; 3-good; 4 –very good; 5 – excellent. These should be qualified with a comment and recommendation for improvement.

H: SAMPLE DIGITAL CONTENT EVALUATION TOOL

Scoring Guide

Scores for each attribute ranges from 0 to 3. The resource scores 0 if it does not address the attribute and 3 if the attribute is fully addressed. The comment section is for the evaluator to support the score given by stating how the digital resource addresses the attribute under consideration.

NOTE: Score can be 0, 1, 2 or 3, as explained in the scoring guide above

Category	Attribute	Score	Comment
Functionality	Program achieves its purpose		
User Interaction	Program is beautiful -looking and engaging to use		
	Purpose of the program is well defined and clear to user		
	There is a consistent overarching structure across the program or each activity		
	Language is used consistently across the entire application		
	Colour and sound are used in only appropriate and meaningful ways		
	The program acknowledges input Feedback on user responses is employed effectively		
	Invalid commands are handled constructively		
	Design is completely age-appropriate: content, design elements and language		
	Defines an intended grade level,		

Curricular Framework	discipline and standards Whether adoption or supplemental material, it contains a comprehensive scope and sequence of activities that intends to address standards		
	Standards are explicitly called out, and include accurate, up-to-date, discipline-specific, concept-focused content, as well as task-focused, 21st Century skills and competencies		
	The sequence of instruction meets logic and knowledge hierarchy requirements		
	Readability level, written language assignments and mathematical requirements are appropriate for the course content and the learners		
	The content, activities and assignments are of sufficient rigour, depth and breadth to teach the standards being addressed		
Teacher Support	Instructional supports (information and materials that enable the teacher to implement the program effectively) are readily available		
	Technical supports are readily available for the teacher and learner		
	Instructional supports (information and materials that enable the teacher to implement the program effectively) are readily available		

	Technical supports are readily available for the teacher and learner		
Learner Support	Contains highly engaging learning activities using simulation, practice, games, personalisation, note-taking etc.		
	Employs relevant incentives, activities, visual and aural stimuli, and variation in methodology to gain and maintain attention		
	Resource contains both hands-on guided and un-guided practice		
	Resource provides ongoing performances support		
	Resource provides opportunities for appropriate (synchronous and asynchronous) teacher-learner interaction		
	Resource provides tailoring of methodology based upon what learners are exposed to in their environment towards what they need to know		
	Encourages independent learning but does not abandon the learners Also encourages collaborative learning and work during and beyond the initial learning experience		
	Asks questions to guide self-monitoring and reflection during the learning process		

Instructional Design	Creates cooperative learning groups with clear goals, roles, and responsibilities; provides prompts that guide learners in when and how to ask peers and/or teachers for help; encourages and supports opportunities for peer interactions and supports; creates expectations for group work (e.g. rubrics, norms etc.)		
	The content is delivered in a highly focused and understandable manner		
	The sequence is logical and supported by context maps and/or other methods		
	Questions are thought-provoking, challenging and well-integrated		
	Analogies, literal examples and scenarios are used appropriately and effectively		
	Resource provides logical scaffolding of the content		
	Resource models skills appropriately		
	Content loading per learning activity is appropriate		
	Appropriate levels and types of advanced organisers are used		
	The user can customise the way the information is displayed		

	The same information is provided through different sensory modalities to cater for multiple intelligences of visual, tactile, text etc.		
	Resource uses video elements appropriately		
	Resource uses audio elements appropriately		
	Resource uses text elements appropriately		
	Resource uses graphical elements appropriately		
	Resource clarifies vocabulary and symbols where used		
	Resource clarifies syntax, language and maths and underlying structure		
Assessment and Evaluation	Resource gathers summative assessment data		
	Resource provides meaningful integrated review		
	Resource provides meaningful feedback		

Adapted from: Lindstrom (1994)

PART THREE: REPORTING FEEDBACK.

The evaluation process at NCDC looks at materials from the departments at National Curriculum Development Centre and from the general public. The materials go through the same procedure of evaluation. The evaluation exercises are spearheaded by the department of Quality Assurance and Publishing and it involves the subject specialists at the Centre, practicing teachers, teacher trainers and other experts, depending on the nature of the material.

The feedback from the evaluation follows the procedure presented as follows:

- 1) The scores from the evaluation exercise, are presented in reports with recommendations, from the department of Quality Assurance and Publishing.
- 2) For the work generated by the departments at the Centre, the reports are handed over to the Deputy Director in charge of academics who then shares them with the Managers.
- 3) When the actions recommended in the reports have been effected to the satisfaction of the Deputy Director, the materials are then presented to the Academic Steering Board for recommendation for approval by the NCDC Governing Council.
- 4) For the materials from the public, the reports are given back to the clients for action. After the the recommendations have been effected and a second version of the material presented for verification by the evaluation team, a certificate of approval is issued by the Director NCDC.

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