



REPUBLIC OF KENYA

MINISTRY OF EDUCATION

PRIMARY CURRICULUM DESIGNS

BRAILLE SKILLS DESIGN FOR LEARNERS WITH BLINDNESS

GRADE 2



KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

A Skilled and Ethical Society

First Published in 2017

Revised 2024

All rights reserved. No part of this book may be reproduced, stored in a retrieval system or transcribed, in any form or by any means, electronic, mechanical, photocopy, recording or otherwise, without the prior written permission of the publisher.

ISBN:

Published and printed by Kenya Institute of Curriculum Development

TABLE OF CONTENTS

FOREWORD	iv
PREFACE	v
ACKNOWLEDGEMENT	vi
LESSON ALLOCATION FOR LOWER PRIMARY	x
GENERAL LEARNING OUTCOMES FOR PRIMARY EDUCATION	x
ESSENCE STATEMENT	xi
GENERAL LEARNING OUTCOMES	xi
GRADE 2.....	1
Suggested Assessment Rubric	18
APPENDICES	20
CSL at Early Years Education (PP1&2 and Grade 1-3).....	21
Assessment of the CSL Activity.....	23
Suggested Assessment Methods.....	24
Suggested Learning Resources	25

FOREWORD

The Government of Kenya is committed to ensuring that policy objectives for Education, Training and Research meet the aspirations of the Constitution of Kenya 2010, the Kenya Vision 2030, National Curriculum Policy 2019, the United Nations Sustainable Development Goals (SDGs) and the Regional and Global conventions to which Kenya is a signatory. Towards achieving the mission of Basic Education, the Ministry of Education (MoE) has successfully and progressively rolled out the implementation of the Competency Based Curriculum (CBC) at Pre-Primary, Primary and Junior School levels.

The implementation of Competency Based Curriculum involves monitoring and evaluation to determine its success. After the five-year implementation cycle, a summative evaluation of the primary education cycle was undertaken to establish the achievement of learning outcomes as envisaged in the Basic Education Curriculum Framework. The Government of Kenya constituted a Presidential working Party on Education Reforms (PWPER) in 2022 to address salient issues affecting the education sector. PWPER made far reaching recommendations for basic education that necessitated curriculum review. The recommendations of the PWPER, monitoring reports, summative evaluation, feedback from curriculum implementers and other stakeholders led to rationalisation and review of the basic education curriculum.

The reviewed Grade 2 English Language curriculum designs for learners with Physical Impairment build on competencies attained by learners at Grade 1. Emphasis at this grade is the development of basic literacy, numeracy and skills for interaction with the environment.

The curriculum designs present National Goals of Education, essence statements, general and specific expected learning outcomes for the subjects as well as strands and sub strands. The designs also outline suggested learning experiences, key inquiry questions, core competencies, Pertinent and Contemporary Issues (PCIs), values, and assessment rubric.

It is my hope that all Government agencies and other stakeholders in Education will use the designs to plan for effective and efficient implementation of the CBC.

HON. EZEKIEL OMBAKI MACHOGU, CBS
CABINET SECRETARY,
MINISTRY OF EDUCATION

PREFACE

The Ministry of Education (MoE) nationally implemented Competency Based Curriculum (CBC) in 2019. Grade one is the first grade of Primary education level while Grade 6 is the final grade of the level in the reformed education structure.

The reviewed Grade 2 Creative Activities Curriculum furthers implementation of the CBC from Grade 1 in Primary level. The curriculum provides opportunities for learners to focus in a field of their choice to form a foundation for further education and training and/or gain employable skills. This is very critical in the realisation of the Vision and Mission of the on-going curriculum reforms as enshrined in the Sessional Paper No. I of 2019 whose title is: Towards Realizing Quality, Relevant and Inclusive Education and Training for Sustainable Development in Kenya. The Sessional Paper explains the shift from a content-focused curriculum to a focus on **nurturing every learner's potential**.

Therefore, the Grade 2 curriculum designs for learners with Physical Impairment are intended to enhance the learners' development in the CBC core competencies, namely: Communication and Collaboration, Critical Thinking and Problem Solving, Creativity and Imagination, Citizenship, Digital Literacy, learning to Learn and Self-efficacy.

The curriculum designs provide suggestions for interactive and differentiated learning experiences linked to the various sub strands and the other aspects of the CBC. They also offer several suggested learning resources and a variety of assessment techniques. It is expected that the designs will guide teachers to effectively facilitate learners to attain the expected learning outcomes for Grade 2 and prepare them for smooth transition to Grade 3. Furthermore, it is my hope that teachers will use the adapted designs to make learning interesting, exciting and enjoyable.

DR. BELIO KIPSANG', CBS
PRINCIPAL SECRETARY
STATE DEPARTMENT FOR BASIC EDUCATION
MINISTRY OF EDUCATION

ACKNOWLEDGEMENT

The Kenya Institute of Curriculum Development (KICD) Act Number 4 of 2013 (Revised 2019) mandates the Institute to develop and review (SNE adapt) curricula and curriculum support materials for basic and tertiary education and training. The curriculum development process for any level of education involves thorough research, international benchmarking and robust stakeholder engagement. Through a systematic and consultative process, the KICD conceptualised the Competency Based Curriculum (CBC) as captured in the Basic Education Curriculum Framework (BECF) 2017, that responds to the demands of the 21st Century and the aspirations captured in the Constitution of Kenya 2010, the Kenya Vision 2030, East African Community Protocol, International Bureau of Education Guidelines and the United Nations Sustainable Development Goals (SDGs).

KICD receives its funding from the Government of Kenya to facilitate successful achievement of the stipulated mandate and implementation of the Government and Sector (Ministry of Education (MoE) plans. The Institute also receives support from development partners targeting specific programmes. The revised Grade 2 curriculum designs for learners with Physical Impairment were developed and adapted with the support of the World Bank through the Kenya Primary Education Equity in Learning Programme (KPEELP); a project coordinated by MoE. Therefore, the Institute is very grateful for the support of the Government of Kenya, through the MoE and the development partners for policy, resource and logistical support. Specifically, special thanks to the Cabinet Secretary-MoE and the Principal Secretary – State Department of Basic Education,

I also wish to acknowledge the KICD curriculum developers and other staff, all teachers, educators who took part as panelists; the Semi-Autonomous Government Agencies (SAGAs) and representatives of various stakeholders for their roles in the development and adaptation of the Grade 2 curriculum designs for learners with Physical Impairment. In relation to this, I acknowledge the support of the Chief Executive Officers of the Teachers Service Commission (TSC) and the Kenya National Examinations Council (KNEC) for their support in the process of developing and adapting these designs. Finally, I am very grateful to the KICD Council Chairperson and other members of the Council for very consistent guidance in the process.

I assure all teachers, parents and other stakeholders that this curriculum design will effectively guide the implementation of the CBC at Grade 2 and preparation of learners with Physical Impairment for transition to Grade 3.

PROF. CHARLES O. ONG'ONDO, PhD, MBS
DIRECTOR/CHIEF EXECUTIVE OFFICER
KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

NATIONAL GOALS OF EDUCATION

1. **Foster nationalism, patriotism, and promote national unity**
Kenya's people belong to different communities, races and religions and should be able to live and interact as one people. Education should enable the learner acquire a sense of nationhood and patriotism. It should also promote peace and mutual respect for harmonious co-existence.
2. **Promote social, economic, technological and industrial needs for national development**
Education should prepare the learner to play an effective and productive role in the nation.
 - a) **Social Needs**
Education should instill social and adaptive skills in the learner for effective participation in community and national development.
 - b) **Economic Needs**
Education should prepare a learner with requisite competences that support a modern and independent growing economy. This should translate into high standards of living for every individual.
 - c) **Technological and Industrial Needs**
Education should provide the learner with necessary competences for technological and industrial development in tandem with changing global trends.
3. **Promote individual development and self-fulfillment**
Education should provide opportunities for the learner to develop to the fullest potential. This includes development of one's interests, talents and character for positive contribution to the society.
4. **Promote sound moral and religious values**
Education should promote acquisition of national values as enshrined in the Constitution. It should be geared towards developing a self-disciplined and ethical citizen with sound moral and religious values.

5. Promote social equity and responsibility

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

6. Promote respect for and development of Kenya's rich and varied cultures

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

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

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

8. Good health and environmental protection

Education should inculcate in the learner the value of physical and psychological well-being for self and others. It should promote environmental preservation and conservation, including animal welfare for sustainable development.

LESSON ALLOCATION FOR LOWER PRIMARY

S/ No.	Learning Area	No. of Lessons
1	Mathematical Activities for Learners with Visual Impairment	5
2	English Language Activities for Learners with Visual Impairment	5
3	Environmental Activities for Learners with Visual Impairment	4
4	Creative Activities for Learners with Visual Impairment	7
5	Religious Education Activities	3
6	Kiswahili language activities for Learners with Visual Impairment	4
7	Braille Literacy Activities	2
8.	Pastoral/ Religious Instruction Programme	1
	Total	31

GENERAL LEARNING OUTCOMES FOR PRIMARY EDUCATION

By the end of the Primary Education, the learner should be able to:

Communicate appropriately using verbal and or non-verbal modes in a variety of contexts.

Demonstrate mastery of number concepts to solve problems in day-to-day life

- a) Demonstrate social skills, moral and religious values for positive contribution to society
- b) Develop one's interests and talents for personal fulfilment
- c) Make informed decisions as local and global citizens of a diverse, democratic society in an interdependent world.
- d) Explore, manipulate, manage and conserve the environment effectively for learning and sustainable development
- e) Acquire digital literacy skills for learning and enjoyment.
- f) Appreciate the country's rich, diverse cultural heritage for harmonious living

ESSENCE STATEMENT

Braille skills literacy is a major prerequisite for learning to learners with visual impairment. The skill will enable the learner to perform well in education, information, trade, diplomacy, social networking, science, technology, the internet, and travel. It is internationally used as the main commonly learnt skills for learners with visual impairment in today's world. In Kenya, Braille skills literacy is learnt as the medium of instruction all grades. Hence, a solid foundation in the mastery of Braille skills must be laid in Early Years Education. This will not only enhance learning in Middle School but will also prepare the learner with visual impairment for future engagements in the national and international arenas. Consequently, the learner with visual impairment must be exposed to targeted interactive tasks in braille skills literacy activities. Additionally, the learner with visual impairment will be able to progressively demonstrate the expected range of competencies in braille skills. A deliberate focus on each of the braille skills literacy is expected even though the interrelatedness between the various language skills must be taken into account.

GENERAL LEARNING OUTCOMES

By the end of Early Years Education, the learner with visual impairment should be able to:

- a) listen and respond appropriately to relevant information in a variety of contexts,
- b) express self-confidently using braille writing and reading materials
- c) read and write English braille notations fluently and accurately,
- d) read and write the mathematics braille notations fluently and accurately,
- e) write simple sentences using Kiswahili braille notations fluently and accurately.

STRANDS

- Braille Writing Equipment and Materials
- Braille Reading Skills
- Braille Writing Skills
- English Braille Notation
- Mathematics Braille Notation
- Breli ya Kiswahili

SUB STRANDS

Braille Writing Equipment and Materials

Assistive devices

Braille Reading Skills

Simple tactile lines maps and diagrams

Braille writing skills

Orientation to braille machine process

English Braille

Indicators and Punctuation.

1. Upper Word Signs
2. Special Word Signs

Mathematics Braille Notation

1. Numbers in Braille
2. Units of Measurement

Breli ya Kiswahili

1. Alama za kuakifisha
2. Mikato ya Kiswahil

GRADE 2

STRANDS	SUB STRAND	SPECIFIC LEARNING OUTCOMES	SUGGESTED LEARNING EXPERIENCES	KEY INQUIRY QUESTIONS
1.0 Braille Writing Equipment and Materials	1.1 Assistive Devices (5 lessons)	<p>By the end of the lesson, the learners should be able to:</p> <ul style="list-style-type: none"> a) identify assistive devices for reading and writing braille, b) use assistive devices in reading and writing braille, c) practice good care and storage of the assistive devices after use d) appreciate the use assistive devices in reading and writing braille. 	<ul style="list-style-type: none"> • Learner is guided to identify assistive devices for reading and writing braille such as; pegs and pegboards, slate and stylus, digital devices with refreshable braille keyboard such as orbit reader, dot mini, or smart braille machine. • Learner is guided to use ; pegs and pegboards, slate and stylus, digital devices with refreshable braille keyboard such as orbit reader, dot mini, or smart braille machine. • In pairs or groups learners practice using assistive devices such as pegs and pegboards, slate and stylus, digital devices with refreshable braille keyboard such as orbit reader, dot mini, or smart braille machine.. • Learner is guided on how to use the assistive devices safely taking care of them to prevent accidents on self and others. 	<ol style="list-style-type: none"> 1. How do you enhance learning using digital devices with assistive technology? 2. Why is it important to store the digital devices or equipment appropriately?

			<ul style="list-style-type: none"> • Learner is guided on how to store the assistive devices safely to prevent breakage and loss. 	
--	--	--	--	--

<p>Core competences to be developed:</p> <p>Digital literacy: The learner acquires digital skills as they manipulate and use digital devices with assistive technology to read and write braille.</p> <p>Communication and collaboration: The learner works together in groups expressing themselves, communicating and supporting one another.</p> <p>Learning to learn: The learner manipulates digital devices with assistive technology to familiarize themselves and discover more functions of the devices enhancing learning.</p>
<p>Values:</p> <ul style="list-style-type: none"> • Unity: The learner together with others manipulate and explore digital devices with assistive technology. • Responsibility: The learner uses with care digital devices and stores them safely after use to avoid damage.
<p>Pertinent and Contemporary Issues: The learner ensures good care and storage of digital devices when using and after use to ensure durability of the devices.</p>
<p>Link to other learning areas: The learner uses digital devices with assistive technology to read and write relevant texts in braille in all the learning areas.</p>
<p>Suggested Learning Resources: Digital devices with refreshable braille keyboard such as;</p> <ul style="list-style-type: none"> • orbit reader, • dot mini, • smart braille machine

STRANDS	SUB STRAND	SPECIFIC LEARNING OUTCOMES	SUGGESTED LEARNING EXPERIENCES	SUGGESTED KEY INQUIRY QUESTIONS
2.0 Braille Reading Skills	2.1 Interpreting simple tactile graphics. (5 lessons)	<p>By the end of the lesson, the learners should be able to:</p> <ul style="list-style-type: none"> a) identify simple tactile graphics in a text, b) Trace and manipulate edges of a tactile graphic to identify the graphic features c) Store safely tactile materials after use. d) appreciate the use of tactile materials in reinforcing concepts. 	<ul style="list-style-type: none"> • Learner is guided to identify simple tactile graphics such as lines, maps and diagrams by tracing edges and manipulation. • Learner is guided to trace and manipulate edges of a tactile graphic to identify the graphic features. • In pairs or groups learners practice tracing and manipulating simple tactile lines, maps and diagrams • Learner is guided on how to store tactile materials appropriately to avoid damage. • Individually, learners practice safe storage of assistive devices within their environment. 	<ol style="list-style-type: none"> 1. Why is it important to trace edges of a tactile graphic? 2. How do you store tactile graphics?

STRANDS	SUB STRAND	SPECIFIC LEARNING OUTCOMES	SUGGESTED LEARNING EXPERIENCES	SUGGESTED KEY INQUIRY QUESTIONS
3.0 Braille Writing Skills	3.1 Orientation to Braille writing machine. 5 lessons	By the end of the lesson, the learners should be able to: a) identify the Braille machine; b) identify the six keys, space bar, line spacer, back spacer and carriage on a braille machine; c) Insert and remove the paper from the Braille machine; d) Appreciate the importance of orientation to Braille writing activities.	<ul style="list-style-type: none"> • Learner is guided to identify the parts of a braille machine such as the six keys, space bar, line spacer, back spacer and carriage. • Learner is guided to identify the six embossing keys on a braille machine. • Learner is guided on the process of insertion and removal of braille paper from the braille machine. • In pairs or groups learners could practice insertion and removal of braille paper from the braille machine • Learners could sing a song related to orientation to Braille writing machine activities • In pairs or groups learners practice inserting and removing paper on a braille machine. 	<ol style="list-style-type: none"> 1. How do you insert and remove Braille paper from the braille machine? 2. Why is it important to identify the keys of the braille machine?

Core-Competence to be developed:

Communication and collaboration: A learner pairs and works with others during group activities hence developing communication and collaboration skills.

Imagination and creativity: A learner works with keenness to accurately insert and remove braille paper from the braille machine, as they place and clip paper on a braille machine.

Pertinent and contemporary issues: life Skills – learner exercises caution and safety measures while using braille machine to avoid accidents or damage.

Values:

Responsibility: The learner handles the braille machine and other equipment with care while using and storing it. Mathematics activities psychomotor and creative activities.

Link to other learning areas:

A learner uses the braille machine to write braille text in all learning areas.

Suggested Resources:

- Braille machines,
- Braille papers.

STRAND	SUB- STRAND	SPECIFIC LEARNING OUTCOMES	SUGGESTED LEARNING EXPERIENCES	SUGGESTED KEY INQUIRY QUESTIONS
4.0 English Braille Notation	4.1 Indicators and punctuations (8 lessons)	By the end of the lesson, the learners should be able to: <ul style="list-style-type: none"> a) identify indicators and punctuation signs in braille, b) use indicators and punctuation signs in English braille text, c) enjoy using indicators and punctuations signs in braille. 	<ul style="list-style-type: none"> • Learner is guided to identify indicators and punctuation signs by mastering their specific dots. • Learner is guided to use indicators and punctuation signs in reading and writing braille sentences. • In pairs learners participate in identifying indicators and punctuations signs in sentences for speed, accuracy and enjoyment. • In groups learners practice writing sentences using indicators and punctuation signs. 	<ol style="list-style-type: none"> 1. How do you indicate a capital letter? 2. How do you write punctuation signs in braille?

Core competence to be developed:

Communication and Collaboration: The learner works together with others in groups expressing himself or herself well during group activities.

Critical thinking and problem solving: The learner identifies specific dots for each indicator and punctuation sign and creates his or her own patterns to help him or her master their arrangement and position of dots.

Pertinent and Contemporary Issues: social cohesion: The learner joins and works with others from different ethnic groups with peace, love and respect.

<p>Values</p> <ul style="list-style-type: none"> • Love: The learner appreciates others as they work together in groups and share learning materials. • Unity: The learners collaboratively work together with others in a group peacefully.
<p>Link to other learning areas: The learner reads and writes text in braille involving indicators and punctuation signs in all the learning areas.</p>
<p>Suggested Learning Resources:</p> <ul style="list-style-type: none"> • Braille machine • Braille cards • Braille paper • Slate and stylus • Pegs and pegboards

STRAND	SUB STRAND	SPECIFIC LEARNING OUTCOMES	SUGGESTED LEARNING EXPERIENCES	SUGGESTED KEY INQUIRY QUESTIONS
English Braille Notation	4.2 Upper word signs represented by the letters of the alphabet (10 lessons)	By the end of the lesson, the learners should be able to: <ul style="list-style-type: none"> a) identify the words represented by the letters of the alphabet orally, b) read fully spelled words represented by the letters of the alphabet in braille, c) read braille text with words signs represented by letters of the alphabet the in braille, 	<ul style="list-style-type: none"> • Learner is guided to identify words represented by the letters of the alphabet by associating a letter with the word verbally (A-Z). • Learner is guided to read the words represented by the letters of the alphabet in full spelling for mastery. • Learner is guided to read braille text with words signs represented by letters of the alphabet the in braille, 	<ol style="list-style-type: none"> 1. Why do you use letters of the alphabet to represent specific words? 2. How do you differentiate upper sign and lower sign?

		<p>d) write words represented by the letters of the alphabet in full spelling,</p> <p>e) read simple sentences with upper word signs in a text,</p> <p>f) use upper words signs to write simple sentences,</p> <p>g) desire to use word signs in reading and writing braille.</p>	<ul style="list-style-type: none"> • Learner is guided to write the words represented by the letters of the alphabet in full for mastery of spelling. • In pairs learners to practice reading upper word signs a text. • Learners practice reading and writing short sentences using the upper word signs. 	
--	--	---	---	--

<p>Core competence to be developed:</p> <p>Communication and collaboration – The learner expresses himself or herself well while working in pairs or groups during groups activities.</p> <p>Self-efficacy: The learner gains confidence in braille skills while reading and writing word signs in sentences instead of using the fully spelt out words</p>
<p>Pertinent and Contemporary Issues: life skills: The learner gains self-esteem through practicing use of upper group signs instead of fully spelt out words.</p>
<p>Link to values:</p> <ul style="list-style-type: none"> • Respect: The learner shows respect to others as they work in groups as they read and write simple sentences using upper group signs instead of fully spelt out words. • Unity: The learner works collaboratively with others during group activities to read and write simple sentences involving upper word signs.
<p>Link to other learning areas: The learner reads and writes text in braille involving upper word signs in all the learning areas.</p>
<p>Suggested Learning Resources:</p> <ul style="list-style-type: none"> • Braille machine • Braille cards

- Braille paper
- Slate and stylus
- Pegs and pegboards

STRAND	SUB STRAND	SPECIFIC LEARNING OUTCOMES	SUGGESTED LEARNING EXPERIENCES	SUGGESTED KEY INQUIRY QUESTIONS
English Braille Notation	4.3 Special word Signs 3 lessons	By the end of the lesson, the learners should be able to: <ol style="list-style-type: none"> identify the words represented by the special words signs orally, read words represented by the special word sign in full spelling on a braille card, read words represented by the special word sign in full spelling on a braille card write words represented by the special word in full spelling, 	<ul style="list-style-type: none"> • Learner is guided to identify the words represented by the special word signs verbally (AND, FOR, OF, THE, WITH) • Learner is guided to read the words represented by the special word signs in full spelling for mastery. • Learner be guided to read words represented by the special word sign in on a braille card and in sentences for mastery. • Learner guided to write the words represented by the special word signs in full for mastery of spelling. • In pairs learners could practice reading special word signs in sentences. • Learners could practice writing short sentences using the special word signs. 	<ol style="list-style-type: none"> 1. How do you write special word signs in braille? 2. Why is it important to use the special word signs when reading and writing braille?

		e) use special word signs to write short sentences, f) show interest in using special word signs to write short sentences.	
--	--	---	--

<p>Core competence to be developed: Communication and collaboration – The learner expresses himself or herself well while working in pairs or groups during groups activities. Self-efficacy: The learner gains confidence in braille skills while reading and writing special word signs in short sentences.</p>
<p>Values:</p> <ul style="list-style-type: none"> • Respect: The learner shows respect to others as they work in groups as they read and write simple sentences using special group signs instead of fully spelt out words. • Unity: The learner works collaboratively with others during group activities to read and write simple sentences involving special word signs.
<p>Pertinent and Contemporary Issues: life skills: The learner gains self-esteem through practicing use of special group signs instead of fully spelt out words.</p> <ul style="list-style-type: none"> •
<p>Link to other learning areas: The learner reads and writes text in braille involving special word signs in all the learning areas.</p>
<p>Suggested Learning Resources:</p> <ul style="list-style-type: none"> • Braille machine • Braille cards • Braille paper • Slate and stylus • Pegs and pegboards

STRAND	SUB STRAND	SPECIFIC LEARNING OUTCOMES	SUGGESTED LEARNING EXPERIENCES	SUGGESTED KEY INQUIRY QUESTIONS
4.0 Mathematics braille Notations	5.1 Numbers in braille (10 lessons)	By the end of the lesson, the learners should be able to: a) say numbers 11- 100 orally, b) read numbers 11-100 in braille, c) write numbers 11-100 in braille appropriately. d) read and write simple mathematics statements in braille. e) enjoy reading and writing numbers in braille.	<ul style="list-style-type: none"> • Learners is guided to say the numbers 11-100 orally. • Learner is guided to read the numbers 11-100 in braille. • Learner is guided to write the numbers 11-100 in braille. • In pairs and in groups learners practice reading and writing numbers and simple mathematical statements in braille. 	<ol style="list-style-type: none"> 1. How do you write numbers in braille? 2. How do you use different signs in braille when writing simple mathematics statement in braille?

Core competences to be developed:

Imagination and creativity: The learner creates a mental picture of the position of braille dots forming numbers making it easy to read and write numbers.

Learning to learn: The learner discovers ways of representing numbers braille as they use different letters of the alphabet together with the numeral sign to form different numbers.

Values:

- **Unity:** The learner respects peers' opinion as they in turns in reading and writing numbers in braille.
- **Respect:** The learner appreciates other learners' views as they discuss, read and write numbers in braille.

Pertinent and Contemporary Issues: Social Cohesion: The learner interacts with others peacefully while working in pairs and groups.

Link to other learning areas: The learner uses knowledge gained to read and write numbers in braille in mathematics activities and other learning area involving numbers.

Suggested Learning Resources:

- Braille machine
- Braille cards
- Braille paper
- Slate and stylus
- Pegs and pegboards
-

STRAND	SUB STRAND	SPECIFIC LEARNING OUTCOMES	SUGGESTED LEARNING EXPERIENCES	SUGGESTED KEY INQUIRY QUESTIONS
Mathematics braille Notation	5.2 Units of measurements (8 lessons)	By the end of the lesson, the learners should be able to: a) identify units of measurement in as used in mathematics braille, b) read mathematics statements involving units of measurement in braille, c) write mathematics statements involving units of measurement in braille, d) appreciate the use units of measurement mathematics braille.	<ul style="list-style-type: none"> • Learner is guided identify the dots forming the units of measurement such as money, Length, Weight and Time orally • Learner is guided to read units of measurement such as money, Length, Weight and Time in braille on a work card. • Learner is guided to write units of measurement such as money, Length, Weight and Time in braille. • In pairs or groups learners could practice reading and writing units of measurement for mastery and enjoyment. 	<ol style="list-style-type: none"> 1. How do you write shillings and cents in braille? 2. How do differentiate units of measurement with a single letter from upper word signs represented by words of the alphabet?

--	--	--	--	--

<p>Core competences to be developed:</p> <p>Communication and collaboration: the learner collaboratively discusses with others as they work in groups and this builds their communication skills.</p> <p>Self-efficacy: The learner gains confidence as they read and write mathematics statements involving different units of measurements in braille.</p>	
<p>Values:</p> <p>Unity: The learner works peacefully with others in pairs or group activities when writing mathematics statements involving units of measurement.</p>	
<p>Pertinent and Contemporary Issues: social cohesion: The learner peacefully works with others in pairs or groups showing them love and respect.</p>	
<p>Link to other learning areas: The learner use knowledge gained to write units of measurement in braille in learning areas such as mathematics activities and Environmental activities.</p>	
<p>Suggested Learning Resources:</p> <ul style="list-style-type: none"> • Braille machine • Braille cards • Braille paper • Slate and stylus • Pegs and pegboards 	

MADA	MADA NDOGO	MATOKEO MAALUM YANAYOTARAJIWA	SHUGHULI ZA UJIFUNZAJI ZILIZOPENDEKEZWA	SWALI DADISI LILILOPENDEKEZWA
5.0 Brelu Ya Kiswahili	6.1 Alama za kuakifisha (Vipindi 8)	<p>a) kutambua alama za kuakifisha katika breli kwa kutaja nukta nundu husika,</p> <p>b) kusoma alama za kuakifisha katika katika sentensi fupi fupi zilizoanikwa kwa breli,</p> <p>c) kuandika kwa breli alama za kuakifisha kwa breli katika sentensi fupi fupi,</p>	<ul style="list-style-type: none"> • Mwanafunzi aelekezwe kutambua alama za kuakifisha kwa kutaja nukta nundu husika. • Mwanafunzi aelekezwe kusoma na kutambua ishara ya alama za kuakifisha katika sentensi. • Mwanafunzi aelekezwe kuandika alama za kuakifisha katika sentensi fupi fupi. • Kwa vikundi au wawili wawili wanafunzi wanaweza kutambua alama za kuakifisha katika sentensi ili kuwapa uzoefu na kasi inayohitajika katika kusoma na kuandika. 	<ol style="list-style-type: none"> 1. Ni vipi utaandika herufi kubwa kwa breli? 2. Utatambua vipi alama za kuakifisha kwa breli katika sentensi?

Umilisi wa kimsingi unaokuzwa:

Mawasiliano na ushirikiano – Mwanafunzi kutoa mawazo yake akishiriakana na wenzake wakiwa wawiliwawili au kwa vikundi wakisoma na kuandika sentensi zenye alama za kuakifisha kwa breli.

Maadili

- Umoja: mwanafunzi anaposhirikiana na wenzake katika shughuli za kikundi kusoma na kuandika sentensi zenye alama za kuakifisha.
- Heshima: mwanafunzi anapoheshimu maoni ya wenzake katika shughuli ya kikundi

Uhusiano na masuala mtambuko: uraia mwema – mwanafunzi hushirikiana na wenzake kwa imani wakifanya kazi kwa vikundi.

Uhusiano na masomo mengine:

English language Activities – Mwanafunzi husoma na kuandika kwa breli sentensi zenye alama za kuakifisha.

Mapendekezo ya nyenzo za kufundishia

- Vitabu vya breli
- Kadi za breli
- Karatasi za breli
- Mashine ya breli
- Sleti na stelesi

MADA	KIPENGELE CHA UZI	MATARAJIO MAALUM	MAPENDEKEZO YA SHUGHULI ZA SOMO	MASWALI DAHILI
Kiswahili breli	6.2 maneno yanayosimamiwa na herufi za abjadi. (vipindi 10)	a) tambua maneno yanayosimamiwa na herufi za abjadi kwa sauti. b) Soma maneno yanayosimamiwa na herufi za abjadi yaliyoandikwa kikamilifu kwa breli.	<ul style="list-style-type: none"> • Mwanafunzi aelekezwe kutambua maneno yanayosimamiwa na herufi za abjadi kwa kulinganisha neno na herufi kwa sauti. • Mwanafunzi aelekezwe kutambua herufi Q na X ambazo si mojawapo ya abjadi ya kiswahili ingawa huwakilisha maneno ya kiswahili kwa breli. • Mwanafunzi aelekezwe kusoma maneno yanayowakilishwa na herufi za abjadi 	<ol style="list-style-type: none"> 1. Kwa nini tunatumia herufi X na Q ingawa si mojawapo ya abjadi za kiwashili? 2. Ni kwa sababu gani herufi za abjadi zinatumika kuwakilisha

		<p>c) Andika kwa breli maneno yanayosimamiwa na herufi za abjadi kikamilifu</p> <p>d) Soma sentensi fupi fupi zilizoandikwa kwa breli kwa kutumia herufi zinazosimama badala ya maneno.</p> <p>e) Tumia herufi zinazosimama badala ya maneno kuandika sentensi fupi fupi kea breli.</p>	<p>kwa ili watambue namna yanavyoendelezwa kikamilifu.</p> <ul style="list-style-type: none"> • Mwanafunzi aelekezwe kuandika maneno yanayowakilishwa na herufi za abjadi ili watambue namna yanavyoendelezwa kikamilifu. • Kwa vikundi wanafunzi wanaweza kusoma na kuandika sentensi fupi fupi wakutumia maneno yanayo simamiwa na herufi za abjadi ili kuwapa uzoefu na kasi inayohitajika katika kusoma na kuandika. • Kwa vikundi au wawiliwawili, wanafunzi wanaweza kutumia vifaa kya kidijitali vyenye teknolojia saidizi kusoma na kuandika sentensi fupi fupi wakutumia maneno yanayo simamiwa na herufi za abjadi ili kuwapa uzoefu na kasi inayohitajika katika kusoma na kuandika. 	<p>maneno fulani katika breli ya Kiswahili?</p>
--	--	---	--	---

Umilisi wa kimsingi unaokuzwa

- Mawasiliano na ushirikiano: mwanafunzi anaposhiriki katika shughuli za kikundi kutambua, kusoma na kuandika maneno yanayosimamiwa na herufi za abjadi yaliyoandikwa kikamilifu kwa breli..
- Ujuzi wa kidijitali: mwanafunzi anapofaulu kuandika kusoma na kuandika sentensi fupi fupi akitumia maneno yanayo simamiwa na herufi za abjadi akitumia kifaa cha kidijitali chenye teknolojia saidizi.
- Hamu ya ujifunzaji: mwanafunzi anapomshirikisha mzazi au mlezi wake kuandika kusoma na kuandika sentensi fupi fupi akitumia maneno yanayo simamiwa na herufi za abjadi akiwa nyumbani.

<ul style="list-style-type: none"> ● Kujiamini: mwanafunzi anapofaulu kuandika kusoma na kuandika sentensi fupi fupi wakitumia maneno yanayo simamiwa na herufi za abjadi ipasavyo.
<p>Maadili</p> <ul style="list-style-type: none"> ● Upendo: mwanafunzi anaposhirikiana na wenzake na kuheshimu maoni yao. ● Heshima: mwanafunzi anapowatambua na kuwathamini wenzake wakati wa kushiriki katika shughuli za kusoma na kuandika kusoma na kuandika sentensi fupi fupi wakitumia maneno yanayo simamiwa na herufi za abjadi. ● Umoja: mwanafunzi anaposhirikiana na wenzake katika kazi ya kikundi
<p>Masuala mtambuko</p> <ul style="list-style-type: none"> ● Stadi za maisha: mwanafunzi anapofaulu kuandika kusoma na kuandika sentensi fupi fupi wakitumia maneno yanayo simamiwa na herufi za abjadi kwa kuzingatia ujuzi alipata, ukakamavu wake unajengeka. ● Uraia: mwanafunzi anapowathamini wenzake wanaposhirikiana katika shughuli za kikundi kusoma na kuandika sentensi kwa breli.
<p>Uhusiano na masomo mengine</p> <p>English Language Activities: somo hili pia yanashughulikia kuandika kusoma na kuandika sentensi fupi fupi wakitumia maneno yanayo simamiwa na herufi za abjadi.</p>
<p>Mapendekezo ya nyenzo za kufundishia</p> <ul style="list-style-type: none"> ● Vitabu vya breli ● Kadi za breli ● Karatasi za breli ● Mashine ya breli ● Sleti na stelesi.

Suggested Assessment Rubric						
Strand	Sub Strand	Indicator	Exceeding expectation	Meeting expectation	Approaching expectation	Below expectation
Braille Writing Equipment and Materials	Assistive devices	Ability to use 6 assistive devices in reading and writing braille,	Learner uses 5 to 6 assistive devices in reading and writing braille,	Learner uses 3 to 4 assistive devices in reading and writing braille,	Learner uses 2 assistive devices in reading and writing braille,	Learner uses 1 or none assistive devices in reading and writing braille,
Braille Reading Skills	Interpreting Simple graphics	Ability to trace and manipulate edges of a tactile graphic to identify 5 graphic features	Learner traces and manipulate edges of a tactile graphic to identify 4 graphic features	Learner traces and manipulate edges of a tactile graphic to identify 3 graphic features	Learner traces and manipulate edges of a tactile graphic to identify 2 graphic features	Learner traces and manipulate edges of a tactile graphic to identify 1 or none graphic features
English braille	Indicators and punctuations signs	Ability to use 5 indicators and punctuation signs in English braille text,	Learner uses 4 indicators and punctuation signs in English braille text,	Learner uses 3 indicators and punctuation signs in English braille text,	Learner uses 2 indicators and punctuation signs in English braille text,	Learner uses 1 or none indicators and punctuation signs in English braille text,
English Braille (22 lessons)	Upper word signs and word signs represented by the letters of the alphabet.	Ability to read and write braille text with 24 words signs represented by letters of the	Learner reads and write braille text with 19 to 24 words signs represented by letters of the	Learner reads and write braille text with 13 to 18 words signs represented by	Learner reads and write braille text with 6 to 12 words signs represented by letters of the	Learner reads and write braille text with 1-5 words signs represented by letters of the

		alphabet the in braille,	alphabet the in braille,	letters of the alphabet the in braille,	alphabet the in braille,	alphabet the in braille,
English Braille	Special word signs	Ability to read and write 5 words represented by the special word sign in a braille card and in sentences.	Learner reads and write 4 words represented by the special word sign in a braille card and in sentences.	Learner reads and write 3 words represented by the special word sign in a braille card and in sentences.	Learner reads and write 2 words represented by the special word sign in a braille card and in sentences.	Learner reads and write 1 or none words represented by the special word sign in a braille card and in sentences.
Mathematics Braille Notation	Numbers in braille,	Ability to read and write numbers 11-100 in braille,	Learner reads and writes numbers 80 to 100 numbers in braille,	Learner reads and writes numbers 50 to 79 numbers in braille,	Learner reads and writes numbers 20 to 49 numbers in braille,	Learner reads and writes numbers 0 to 19 numbers in braille,
Mathematics braille notations	Units of measurements in braille	Ability to read and write mathematics statements involving units of measurement in braille,	Learner reads and writes mathematics statements involving 4different units of measurement in braille,	Learner reads and writes mathematics statements involving 3different units of measurement in braille	Learner reads and writes mathematics statements involving 2 different units of measurement in braille,	Learner reads and writes mathematics statements involving 1 or none different units of measurement in
Kiswahili braille	Alama za kuakifisha	Kuweza kusoma na kuandika alama 5 za kuakifisha katika sentensi fupi fupi	Mwanafunzi ansoma na kuandika alama 4 za kuakifisha katika sentensi	Mwanafunzi ansoma na kuandika alama 3 za kuakifisha	Mwanafunzi ansoma na kuandika alama 2 za kuakifisha	Mwanafunzi ansoma na kuandika alama 1 au bila za

		zilizoanikwa kwa breli,	fupi fupi zilizoanikwa kwa breli,	katika sentensi fupi fupi zilizoanikwa kwa breli,	katika sentensi fupi fupi zilizoanikwa kwa breli,	kuakifisha katika sentensi fupi fupi zilizoanikwa kwa breli,
Kiswahili braille	Maneno yanayosimamiwa na mikato ya seli moja	Kuweza kusoma maneno 10 yanayosimamiwa na herufi za abjadi yaliyoandikwa kikamilifu kwa breli.	Mwanafunzi anasoma maneno 8 hadi 10 yanayosimamiwa na herufi za abjadi yaliyoandikwa kwa breli.	Mwanafunzi anasoma maneno 6 hadi 7 yanayosimamiwa na herufi za abjadi yaliyoandikwa kwa breli.	Mwanafunzi anasoma maneno 3 hadi 5 yanayosimamiwa na herufi za abjadi yaliyoandikwa kwa breli.	Mwanafunzi anasoma maneno 1 hadi 2 yanayosimamiwa na herufi za abjadi yaliyoandikwa kwa breli.

APPENDICES

Appendix 2: Suggested Assessment Methods and Tools

1. Written tests and quizzes
2. Rating scales
3. Projects
4. Observation Schedules
5. Portfolios
6. Assessment Rubric
7. Questionnaire

CSL at Early Years Education (PP1&2 and Grade 1-3)

At this level, the goal of the CSL activity is to provide linkages between concepts learnt in the various Learning Activities and the real life experiences. Learners begin to make connections between what they learn and the relevance to their daily life. CSL is hosted in the Environmental Activities learning area. The class teacher is expected to identify and guide learners to undertake age-appropriate whole-class integrated CSL activity within the school. The safety of the learners should also be taken into account when selecting the CSL activity. The following steps for the integrated CSL activity should be staggered across the school terms:

Steps in carrying out the integrated CSL activity
<p>1) Preparation</p> <ul style="list-style-type: none">● Determine the activity for the learners● Map out the targeted core competencies, values and specific learning areas skills for the CSL activity● Identify resources required for the activity (locally available materials)● Stagger the activities across the term (Set dates and time for the activities)● Communicate to learners, parents/caregivers/guardians, school administration, teachers and other relevant stakeholders in the school community● Identify and develop assessment tools

2) **Implementation of CSL Activity**

- Assigning roles to learners.
- Ensure every learner actively participates in the activity
- Observe learners as they carry out the CSL activity and record feedback.
- Use an appropriate assessment tool to assess both the process and the product (Assess learner's work from the beginning to the end product)
- Assess the targeted core competencies, values and subject skills.

3) **Reflection on the CSL Activity**

Conduct a self-evaluation session with learners on the integrated CSL activity undertaken by discussing the following:

- what went well and why
- what did not go well and why,
- what can be done differently next time
- what they have learnt.

There will be **one** integrated CSL activity that will be conducted **annually**. The thematic areas for the integrated CSL activity will be derived from the broader categories of the PCIs and concepts from the various Learning Areas. The teachers are expected to vary the themes yearly to allow learners to address different PCIs within their contexts. There should be a linkage between the skills from the learning areas and the themes.

The integrated CSL activity will take a Whole School Approach (WSA) where the entire school community is involved (learners, parents/caregivers/guardians, school administration, teachers). Parents/caregivers/guardians are key stakeholders in the planning and execution of the CSL activity. Although the teacher takes the lead role in the planning and integration of the CSL activity, learners will be expected to participate actively in the whole process.

The CSL activity provides an opportunity for the development of core competencies and the nurturing of various values. The teacher is expected to vary the core competencies and values emphasised in the activity yearly.

Assessment of the CSL Activity

Assessment of the integrated CSL activity will focus on 3 components namely: skills from various learning areas applied in carrying out the activity, and core competencies developed and values nurtured. Assessment should focus on both the process and end product of the CSL activity. The teacher will assess learners in groups using various tools such as an observation schedule, checklist, rating scale or any other appropriate assessment tool.

DRAFT

Suggested Assessment Methods

Listening and Speaking	Reading Skills	Grammar	Writing Skills
<ul style="list-style-type: none"> • Oral reading or dictation recitations • Role play • Debates • Oral interviews • Dialogues • Oral discussions • Oral presentations • Public speaking • Teacher-made tests • Peer assessment • Self-assessment and standardised listening tests 	<ul style="list-style-type: none"> • Reading aloud • Dictation • Oral interviews • Question and answer • Teacher-made tests • Learner summaries of what they read • Learner journals • Learner portfolios • Peer assessment • Self-assessment and standardised reading tests • Keeping a record of books read 	<ul style="list-style-type: none"> • Tasks such as multiple choice • Discrimination • Gap-filling • Short-answer • Dialogue-completion, information gap • Role play • Simulation • Matching tasks • Substitution tables • Word games • Puzzles • Teacher made tests 	<ul style="list-style-type: none"> • Teacher-made tests • Learner journals • Peer assessment • Self-assessment learner • Portfolio dictation • Standardised writing tests

Suggested Learning Resources

Non-digital	Digital
<ul style="list-style-type: none">• Course books• Story books• Poetry books• Pictures and photographs• Newspapers• Magazines• Junior encyclopaedia• Journals• Dictionaries• Diorama• Flash cards• Word wheels• Word puzzles• Code words• Charts and realia	<ul style="list-style-type: none">• Digital story books• Pictures and photographs• Journals• Electronic and digital devices• Electronic or online dictionaries• Flash cards• Charts• Video clips• Audio-visual resources• Other web resources