



**REPUBLIC OF KENYA  
MINISTRY OF EDUCATION**

**UPPER PRIMARY CURRICULUM DESIGN**

**AGRICULTURE**

**GRADE 5**

**FOR LEARNERS WITH VISUAL IMPAIRMENT**



**KENYA INSTITUTE OF CURRICULUM DEVELOPMENT**

*A Skilled and Ethical Society*

First Published in 2023

Revised in 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, photocopying, recording or otherwise, without the prior written permission of the publisher.

**ISBN: 978-9914-43-443-9**

Published and printed by Kenya Institute of Curriculum Development

## **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 Five curriculum designs for learners with visual impairment build on competencies attained by learners at Grade four. 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, suggested key inquiry questions, core competencies, Pertinent and Contemporary Issues (PCIs), values, and suggested 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 Five curriculum furthers implementation of the CBC from Grade Four 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 Five curriculum designs for learners with visual 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 Five and prepare them for smooth transition to Grade Six. 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 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 21<sup>st</sup> 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 Five curriculum designs for learners with visual 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 Five curriculum designs for learners with visual 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 Five and preparation of learners with visual impairment for transition to Grade Six.

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

## TABLE OF CONTENTS

FOREWORD .....	iii
PREFACE.....	iv
ACKNOWLEDGEMENT .....	v
NATIONAL GOALS OF EDUCATION .....	vii
LESSON ALLOCATION AT UPPER PRIMARY .....	ix
LEVEL LEARNING OUTCOMES.....	x
ESSENCE STATEMENT.....	xi
SUBJECT GENERAL LEARNING OUTCOMES.....	xii
1.0 CONSERVATION OF RESOURCES .....	1
STRAND 2.0: FOOD PRODUCTION PROCESSES .....	8
STRAND 3.0: HYGIENE PRACTICES .....	19
STRAND 4.0 PRODUCTION TECHNIQUES .....	26
APPENDIX 1: COMMUNITY SERVICE LEARNING PROJECT.....	31
APPENDIX II: LIST OF SUGGESTED ASSESSMENT METHODS, SUGGESTED LEARNING RESOURCES AND SUGGESTED NON-FORMAL ACTIVITIES.....	33

## **NATIONAL GOALS OF EDUCATION**

### **1. Foster nationalism and patriotism and promote national unity.**

Kenya's people belong to different communities, races and religions, but these differences need not divide them. They must be able to live and interact as Kenyans. It is a paramount duty of education to help young people acquire this sense of nationhood by removing conflicts and promoting positive attitudes of mutual respect which enable them to live together in harmony and foster patriotism in order to make a positive contribution to the life of the nation.

### **2. Promote the social, economic, technological and industrial needs for national development.**

Education should prepare the youth of the country to play an effective and productive role in the life of the nation.

#### **a) Social Needs**

Education in Kenya must prepare children for changes in attitudes and relationships which are necessary for the smooth progress of a rapidly developing modern economy. There is bound to be a silent social revolution following the wake of rapid modernisation. Education should assist our youth to adapt to this change.

#### **b) Economic Needs**

Education in Kenya should produce citizens with the skills, knowledge, expertise and personal qualities that are required to support a growing economy. Kenya is building up a modern and independent economy which is in need of an adequate and relevant domestic workforce.

#### **c) Technological and Industrial Needs**

Education in Kenya should provide learners with the necessary skills and attitudes for industrial development. Kenya recognises the rapid industrial and technological changes taking place, especially in the developed world. We can only be part of this development if our education system is deliberately focused on the knowledge, skills and attitudes that will prepare our young people for these changing global trends.

### **3. Promote individual development and self-fulfillment**

Education should provide opportunities for the fullest development of individual talents and personality. It should help children to develop their potential interests and abilities. A vital aspect of individual development is the building of character.

- 4. Promote sound moral and religious values.**  
Education should provide for the development of knowledge, skills and attitudes that will enhance the acquisition of sound moral values and help children to grow up into self-disciplined, self-reliant and integrated citizens.
- 5. Promote social equity and responsibility.**  
Education should promote social equality and foster a sense of social responsibility within an education system which provides equal educational opportunities for all. It should give all children varied and challenging opportunities for collective activities and corporate social service irrespective of gender, ability or geographical environment.
- 6. Promote respect for and development of Kenya's rich and varied cultures.**  
Education should instill in the youth of Kenya an understanding of past and present cultures and their valid place in contemporary society. Children should be able to blend the best of traditional values with the changing requirements that must follow rapid development in order to build a stable and modern society.
- 7. Promote international consciousness and foster positive attitudes towards other nations.**  
Kenya is part of the international community. It is part of the complicated and interdependent network of peoples and nations. Education should therefore lead the youth of the country to accept membership of this international community with all the obligations and responsibilities, rights and benefits that this membership entails.
- 8. Promote positive attitudes towards good health and environmental protection.**  
Education should inculcate in young people the value of good health in order for them to avoid indulging in activities that will lead to physical or mental ill health. It should foster positive attitudes towards environmental development and conservation. It should lead the youth of Kenya to appreciate the need for a healthy environment



## LESSON ALLOCATION AT UPPER PRIMARY

<b>S/No</b>	<b>Learning Area</b>	<b>Number of Lessons Per week</b>
1.	English for learners with Visual impairment	5
2.	Kiswahili for learners with Visual impairment	4
3.	Mathematics for learners with Visual impairment	5
4.	Religious Education	3
5.	Science & Technology for learners with Visual impairment	4
6.	Agriculture and Nutrition for learners with Visual impairment	4
7.	Social Studies for learners with Visual impairment	3
8.	Creative Arts for learners with Visual impairment	6
9.	Pastoral/Religious Instruction Programme	1
<b>Total</b>		<b>35</b>

**NOTE:** Braille skills for learners with blindness to be implemented as Non formal(Co-Curricular) Programme

## **LEVEL LEARNING OUTCOMES**

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

- a) communicate appropriately using verbal and or non-verbal modes in a variety of contexts,
- b) apply acquired knowledge, skills, values and attitudes in everyday life,
- c) demonstrate social skills, moral and religious values for positive contribution to society,
- d) exploit one's talents for individual development and self-fulfillment,
- e) explore, manipulate, manage and conserve the environment for learning and sustainable development,
- f) use digital literacy skills for learning and enjoyment,
- g) value Kenya's rich and diverse cultural heritage for harmonious living,
- h) appreciate the need for, and importance of interdependence of people and nations.

**ESSENCE STATEMENT**

Agriculture and Nutrition is an integrated learning area comprising aspects of agriculture and home science. Learners with visual impairment will acquire knowledge, skills, attitudes and values related to conservation of resources, food production, hygiene and related production techniques. The learning area anchors the socio-economic pillar of Kenya Vision 2030 to promote health, hygiene, food and nutrition security through education. The curriculum will develop competencies in personal and environmental hygiene, foods and nutrition, basic clothing construction, laundry, crop and animal production and conservation of resources. The acquired knowledge, skills and attitudes will form a foundation for further development of the competencies in junior school and beyond.

## **SUBJECT GENERAL LEARNING OUTCOMES**

By the end of Primary Education Level, the learner with visual impairment should be able to:

1. Participate actively in agricultural and household activities for conservation of resources.
2. Use scarce resources through innovative and adaptive practices to contribute towards food and nutrition security.
3. Engage in food production processes for self-sustainability, health and economic development.
4. Adopt personal and environmental hygiene practices for healthy living.
5. Apply appropriate production techniques, innovative technologies, digital and media resources to enhance sustainable agricultural and household practices.
6. Appreciate agricultural and household skills as a worthy niche for hobby, career development, further education and training.

## SUMMARY OF STRANDS AND SUB STRANDS

<b>Strands</b>	<b>Sub Strands</b>	<b>Suggested Number of Lessons</b>
<b>1.0 Conservation of Resources</b>	1.1 Soil Conservation	8
	1.2 Water Conservation	9
	1.3 Conserving Wild Animals	6
<b>2.0 Food Production Processes</b>	2.1 Growing Vegetables	9
	2.2 Uses of Domestic Animals	8
	2.3 Preservation of Cereals and Pulses	10
	2.4 Food Nutrients	10
	2.5 Cooking Food	9
<b>3.0 Hygiene Practices</b>	3.1 Good Grooming Practices	7
	3.2 Home Hygiene	9
	3.3 Laundering Cotton Item	10
<b>4.0 Production Techniques</b>	4.1 Repairing Garments	11
	4.2 Constructing Innovative Gardens	14
<b>Total Number of Lessons</b>		<b>120</b>

**NOTE:**

The suggested number of lessons per sub strand may be more or less depending on the context.

## 1.0 CONSERVATION OF RESOURCES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>1.0 Conservation of Resources</b>	<b>1.1 Soil Conservation</b>	By the end of the sub strand, the learner should be able to: a) identify sites for soil improvement in the school or community, b) construct organic pit for soil improvement, c) demonstrate use of plant remains for soil improvement, d) appreciate the use of plant remains for soil improvement.	<ul style="list-style-type: none"> <li>● In groups, learners are guided to discuss and note down sites in the school and community that have poor soil for crop growth.</li> <li>● Learners with low vision are guided to observe pictures of organic pits or structures used to dump plant residues to estimate the sizes in terms of diameter and depth. Learners with blindness are guided to tactually explore models of organic pits or structures used to dump plant residues to familiarize with the sizes in terms of their diameter and depth.</li> <li>● In groups, Learners with low vision are guided to construct a pit, a structure or choose a site for dumping plant residues. Learners with blindness are provided with one on one support to construct a pit, a structure or choose a site for dumping plant residue, with clear verbal instructions.</li> <li>● In groups, learners with low vision are guided to plant crops in a residue pit to observe and appreciate soil improvement from accumulated organic wastes. Learners with blindness are given one on one support to plant crops</li> </ul>	How can you improve the soil using suitable organic wastes?

			in a residue pit to progressively learn and appreciate soil improvement from accumulated organic wastes.	
<b>Core competencies to be developed:</b>				
Communication and collaboration: Listening and speaking skills are developed as learners discuss and share experiences on sites in the school and community that have poor soil for crop growth.				
<b>Values:</b>				
Unity: Learners work together as they share ideas and support one another when constructing a pit, a site or a structure for damping plant residue.				
<b>Pertinent and contemporary issues:</b>				
Environmental Education and Climate Change: A learner recycles organic wastes in the pit to improve the soil.				
<b>Link to other subjects:</b>				
<ul style="list-style-type: none"> <li>• Science and Technology: A learner learns about waste management.</li> <li>• Mathematics: A learner takes measurements during the construction of the pit.</li> </ul>				
<b>Suggested Learning Resources:</b>				
<ul style="list-style-type: none"> <li>• Reference materials in print with appropriate font size and colour contrast</li> <li>• Braille reference materials</li> <li>• Garden tools and equipment such as jembes, shovel, manure fork, wheelbarrows</li> <li>• Decomposing materials</li> <li>• Plant residues</li> <li>• Old containers such as drums, tanks, waste bins,</li> <li>• Wood ash</li> <li>• Water</li> <li>• Soil.</li> <li>• Tactile ruler</li> <li>• Models of organic pits</li> </ul>				

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>1.0 Conservation of Resources</b>	<b>1.2. Water conservation</b>	By the end of the sub strand, the learner should be able to: a) identify ways of conserving water for household gardening, b) practice water conservation within the school or community, c) appreciate the importance of conserving water in the community.	<ul style="list-style-type: none"> <li>• Learners with low vision are guided to use digital devices with assistive technology or appropriate print materials while learners with blindness are guided to use digital devices with assistive technology or Braille materials to search for information on ways of water conservation such as mulching, cover cropping and shading in kitchen and backyard gardening.</li> <li>• In pairs, learners with low vision are guided to practice various ways of conserving water in farming. Learners with blindness are provided with one on one support to practice various ways of conserving water in farming (mulching, shading, cover cropping) within the school.</li> <li>• In pairs, learners are guided to experiment on mulching (mulch some crops and leave others un-mulched and compare moisture conservation). Learners with blindness are guided on how to evenly spread the mulching materials on the soil surface.</li> <li>• Learners make presentations to share experiences on the importance of conserving water (using mulching, cover cropping and shading) in kitchen and backyard gardening activities.</li> </ul>	<ol style="list-style-type: none"> <li>1. Why is it important to conserve water in the community?</li> <li>2. How do you conserve soil water in household gardening practices?</li> </ol>
<b>Core competencies to be developed:</b> <ul style="list-style-type: none"> <li>• Learning to learn: A learner applies the knowledge of water conservation to conserve water at home.</li> <li>• Digital literacy: A learner operates digital devices with assistive technology to search for information on ways of conserving soil water.</li> </ul>				
<b>Values:</b> Responsibility: A learner responsibly uses and cares for digital devices and other farm tools.				



**Pertinent and contemporary issues:**

Environmental Education and Climate Change: A learner reuses water and waste organic materials in conserving the environment.

**Link to other subjects:**

Social Studies: A learner learns and practices various ways of conserving water in farming (mulching, shading, cover cropping) within the school.

**Suggested Learning Resources:**

- Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers
- Print reference materials in appropriate font size and colour contrast
- Braille reference materials
- Cover crops
- Dry plant materials
- Wood shavings
- Wooden poles/posts/stakes for erecting shade
- Shading nets/improvised materials for shading
- Water
- Containers for innovative gardening

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>1.0 Conservation of Resources</b>	<b>1.3 Conserving wild animals</b>	By the end of the sub strand, the learner should be able to: a) identify ways of repelling wild animals to avoid damage of property, b) repel small wild animals to avoid destruction of property, c) appreciate the importance of living better with wild animals.	<ul style="list-style-type: none"> <li>● Learners with low vision are guided to watch audio-visual clips or listen to a resource person on safe ways of repelling wild animals (such as the use of smoke and smells) to avoid damage on property and live better with wild animals. Learners with blindness are guided to listen to audio-visual clips or a resource person on safe ways of repelling wild animals (such as the use of smoke and smells) to avoid damage on property and live better with wild animals. Provide clear verbal descriptions of the visual elements in the clips.</li> <li>● In groups, learners with low vision are guided to innovate ways of repelling small wild animals (smoke, use of smell repellent or any other improvised repellants). Learners with blindness are given one on one support to innovate ways of repelling small wild animals and choose an appropriate location or site to place the various deterrents to keep off small wild animals.</li> <li>● Learners are guided to discuss with peers and make presentations on the importance of living better with wild animals.</li> </ul>	How do you repel wild animals to avoid destruction?
<p><b>Core competencies to be developed:</b></p> <ul style="list-style-type: none"> <li>● Critical thinking and problem solving: A learner finds ways of repelling wild animals to avoid damage on property while living better with wild animals.</li> <li>● Communication and collaboration: A learner engages in discussions with a resource person on safe ways of repelling wild animals.</li> </ul>				
<p><b>Values:</b> Responsibility: A learner applies safe ways of repelling wild animals to ensure crops and domestic animals are safe from small wild animals.</p>				
<p><b>Pertinent and contemporary issues:</b></p>				

- Environmental Education and Climate Change: A learner applies safe ways of repelling small wild animals without killing them.
- Socio-economic Issues: A learner applies safe ways of repelling wild animals to avoid damage on property without killing them.

**Link to other subjects:**

- Science and Technology: A learner learns about small wild animals.
- Social Studies: A learner learns about wildlife as a resource and economic activity when they apply safe ways of repelling small wild animals without killing them.

**Suggested Learning Resources:**

- Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers
- Audio-visual clips
- Resource person
- Firewood from bad smelling trees
- Repellants
- Rattles
- Radio
- Drums
- Whistles
- Strings
- Old CDs
- Ribbons from radio cassettes

**Suggested Assessment Rubric**

<b>Level</b> <b>Indicator</b>	<b>Exceeds Expectations</b>	<b>Meets Expectations</b>	<b>Approaches Expectations</b>	<b>Below Expectations</b>
Ability to describe conservation of resources in the environment:  <i>(soil, water and wild animals).</i>	Describes conservation measures of four resources in the environment.	Describes conservation measures of three resources in the environment.	Describes conservation measures of two resources in the environment.	Describes conservation of one or no resource in the environment.
Ability to conserve resources in the environment:  <i>(soil, water and wild animals).</i>	Conserves four resources in the environment.	Conserves three resources in the environment.	Conserves two resources in the environment.	Conserves one or no resource in the environment.
Ability to show critical thinking and problem solving in conservation of resources:  <i>(seeks information, finds help when needed, explores possible solutions, completes task).</i>	Shows four indicators of critical thinking and problem solving in conservation of resources.	Shows three indicators of critical thinking and problem solving in conservation of resources.	Shows two indicators of critical thinking and problem solving in conservation of resources.	Shows one or no indicator of critical thinking and problem solving in conservation of resources.

## STRAND 2.0: FOOD PRODUCTION PROCESSES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>2.0 Food Production Processes</b>	<b>2.1 Growing vegetables</b>	By the end of the sub strand, the learner should be able to: a) identify gardening practices for vegetables, b) establish a nursery bed for vegetables, c) grow vegetable crop after transplanting, d) appreciate the importance of vegetables in providing a healthy meals diet.	<ul style="list-style-type: none"> <li>• Learners are guided to brainstorm and share experiences on gardening practices of vegetables in a nursery bed.</li> <li>• In groups, learners with low vision are guided to prepare a nursery bed (container or ground nursery), sow vegetable seeds and take care of the seedlings. Learners with blindness are given one on one demonstration to prepare a nursery bed (container or ground nursery) by being guided to break the soil clods, tactually explore to feel the smoothness of nursery bed prepared to a fine tilth, make drills, use a tactile ruler to establish correct spacing between the drills, evenly sow vegetable seeds along the drills and take care of the seedlings.</li> <li>• Learners, in pairs, are guided to make presentations in class on the importance of growing vegetables as a source of food for animals and humans.</li> </ul>	<ol style="list-style-type: none"> <li>1. How is a vegetable nursery bed established?</li> <li>2. How does growing vegetables contribute to food production?</li> </ol>
<p><b>Core competencies to be developed:</b></p> <ul style="list-style-type: none"> <li>• Learning to learn: A learner applies earlier learnt skills to acquire new skills of growing vegetables as a source of food for animals and humans.</li> <li>• Communication and collaboration: A learner acquires listening and speaking skills as they brainstorm and share experiences on vegetable gardening practices.</li> </ul>				
<p><b>Values:</b> Responsibility: A learner sows vegetable seeds and takes care of the seedlings till maturity.</p>				
<p><b>Pertinent and contemporary issues:</b></p>				

Financial literacy skills: A learner grows vegetables and sells it as a source of food for animals and humans hence generating income

**Link to other subjects:**

Mathematics: A learner uses correct measurement to prepare a nursery bed.

**Suggested Learning Resources:**

- Vegetable seeds
- Vegetable seedlings
- Garden tools and equipment such as jembes, rakes, garden trowel, wheelbarrows, shovel, garden line, tape measure, watering cans, garden line
- Shading nets/any other shading material
- Organic manures
- Appropriate sites for establishing vegetable nursery beds
- Appropriate fertilizers
- Dry grass or any other mulching material
- Containers gardens
- Tactile rulers

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
2.0 Food Production Processes	2.2 Uses of Domestic animals	By the end of the sub strand, the learner should be able to: a) identify uses of various domestic animals in food production, b) relate various domestic animals to their uses, c) appreciate the importance of domestic animals in food production.	<ul style="list-style-type: none"> <li>• Learners are guided to brainstorm and share experiences on the uses of domestic animals in food production (bees, rabbits, camels, fish, pigs, donkeys, dogs and cats).</li> <li>• Learners with low vision are guided to watch and listen to audio-visual clips on various types of domestic animals and their uses. Learners with blindness are guided to listen to audio-visual clips that have sounds made by various domestic animals in order to identify various types of domestic animals and relate them to their uses. Provide verbal descriptions to the visual elements in the clips to learners with blindness.</li> <li>• In groups, learners with low vision are provided with pictures of domestic animals to match to their uses while learners with blindness are provided with tactile diagrams or models of the domestic animals to explore and match to their uses on braille cards.</li> <li>• Learners make presentations in class on the importance of domestic animals in food production while relating the contributions of all the scoped animals.</li> </ul>	How are domestic animals important in food production?
<p><b>Core competencies:</b> Communication and collaboration: A learner communicates reasons and argues out points in class presentations on the importance of domestic animals in food production.</p>				
<p><b>Values:</b> Responsibility: A learner cares for domestic animals by carrying out routine management practices like feeding and proper housing.</p>				
<p><b>Pertinent and contemporary issues:</b></p>				

Socio-economic Issues: A learner appreciates and cares for domestic animals as part of the ecosystem.

**Link to other subjects:**

English: A learner develops vocabulary as they brainstorm and share experiences on the uses of domestic animals in food production.

Science and technology: A learner relates characteristics of living things to uses of domestic animals.

**Suggested Learning Resources:**

- Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers
- Chart with pictures of domestic animals
- Tactile diagrams of domestic animals
- Models of domestic animals
- Animal products such as milk, manure, meat, eggs



Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>2.0 Food Production Processes</b>	<b>2.3 Preservation and storage of cereals and pulses</b>	<p>By the end of the sub strand, the learner should be able to:</p> <ol style="list-style-type: none"> <li>a) describe methods of preserving cereals and pulses in the locality,</li> <li>b) preserve cereals and pulses for food security,</li> <li>c) appreciate the importance of preserving cereals and pulses for food security.</li> </ol>	<ul style="list-style-type: none"> <li>• In pairs, learners are guided to brainstorm and share experiences on methods of preserving and storing cereals and pulses (such as sun drying, use of ashes and use of airtight containers) at household level. <ul style="list-style-type: none"> <li>• Learners with low vision are guided to use digital devices with assistive technology or appropriate print materials to search for information on methods of preserving and storing cereals and legumes. Learners with blindness are guided to use digital devices with assistive technology or braille materials to search for information on methods of preserving and storing cereals and legumes.</li> </ul> </li> <li>• In groups, learners with low vision are guided to preserve and store cereals and pulses using methods such as sun drying, use of ash and airtight containers. Learners with blindness are given one on one demonstration to preserve and store cereals and pulses using methods such as sun drying, use of ash and airtight containers. Learners with blindness are guided to touch and feel the correct amount of ash to be used, how to spread cereals and legumes when drying them in the sun.</li> <li>• Learners make presentations in class and share experiences on the importance of preserving and storing cereal and pulses.</li> </ul>	<p>How does preservation and storage of cereals and pulses enhance food security?</p>

**Core competencies:**

- Critical thinking and problem solving: A learner uses innovative ways to solve the problem of food spoilage.
- Communication and collaboration: Speaking and listening skills are acquired as learners brainstorm and share experiences on methods of preserving and storing cereals and pulses.

**Values:**

Unity: Learners work together sharing ideas and supporting one another to prepare and make class presentations.

**Pertinent and contemporary issues:**

Education for sustainable development: A learner uses innovative ways to solve the problem of food spoilage.

**Link to other subjects:**

Science and Technology: A learner uses innovative ways to solve the problem of food spoilage.

**Suggested Learning Resources:**

- Print reference materials in appropriate font size and colour contrast
- Braille reference materials
- Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers
- Locally available cereals
- Locally available legumes
- Ash
- Airtight containers
- Sacks
- Canvas mats/Tarpaulins

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>2.0 Food Production Processes</b>	<b>2.4 Food Nutrients</b>	By the end of the sub strand, the learner should be able to: a) explain functions of food nutrients in the body, b) categorize foods based on their major nutrients, c) appreciate the importance of various nutrients in the body.	<ul style="list-style-type: none"> <li>• Learners with low vision are guided to use digital devices with assistive technology or appropriate print materials to search for information on the functions of food nutrients (carbohydrates, vitamins, proteins, fats), while learners with blindness are guided to use digital devices with assistive technology or braille materials to search for information on the functions of food nutrients (carbohydrates, vitamins, proteins, fats) and share with their peers in class.</li> <li>• In pairs, learners with low vision are guided to use real food materials and photographs, to categorize foods based on their major nutrients (protein-rich foods, carbohydrates-rich foods, vitamins and minerals-rich foods). Learners with blindness are provided with various real food materials and be guided to tactually manipulate the food materials and categorize them based on their major nutrients (protein rich foods, carbohydrates rich foods, vitamins and minerals rich foods).</li> <li>• In groups, learners are guided to make presentations in class on the importance of various nutrients in the body.</li> </ul>	<ol style="list-style-type: none"> <li>1. Why is the knowledge of food nutrients important in food production?</li> <li>2. How is food categorized based on major nutrients?</li> </ol>
<p><b>Core competencies:</b></p> <ul style="list-style-type: none"> <li>• Communication and collaboration: A learner develops speaking and listening skills as they brainstorm and share information on various nutrients in the body.</li> <li>• Learning to learn: A learner applies the knowledge of food and categorizing based on their nutritional value.</li> </ul>				
<p><b>Values:</b> Unity: Learners work together exchanging ideas and supporting one another while making class presentations.</p>				
<p><b>Pertinent and contemporary issues:</b> Health promotion issues: A learner gains knowledge about the importance of nutrients in the body.</p>				

**Link to other subjects:**

Science and technology: A learner relates knowledge on importance of nutrients to maintaining a healthy body.

**Suggested Learning Resources:**

- Print reference materials in appropriate font and colour contrast
- Braille reference materials
- Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers
- Locally available food items - carbohydrates, vitamins, proteins, fats
- Chart with photographs of food materials - carbohydrates, vitamins, proteins, fats

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>2.0 Food Production Processes</b>	<b>2.5 Cooking Food</b> <ul style="list-style-type: none"> <li>• <i>Dry Fat Frying</i></li> <li>• <i>Deep Frying</i></li> </ul>	By the end of the sub strand, the learner should be able to: <ol style="list-style-type: none"> <li>a) describe dry fat frying and deep frying as methods of cooking,</li> <li>b) cook food using dry fat frying and deep-frying methods,</li> <li>c) embrace dry fat frying and deep frying in food production.</li> </ol>	<ul style="list-style-type: none"> <li>• Learners with low vision are guided to watch and listen to audio-visual clip on the process of dry fat frying and deep-frying methods of cooking while learners with blindness are guided to listen to audio-visual clips on the process of dry fat frying and deep-frying methods of cooking. Provide verbal descriptions of the visual elements in the clips to learners with blindness.</li> <li>• In groups, learners with low vision are guided to observe equipment and materials used for dry fat frying and deep frying. Learners with blindness are given one on one support to touch, explore and feel the nature of equipment and materials used for dry fat frying and deep frying.</li> <li>• Learners with low vision are guided through a demonstration while learners with blindness are given hands on demonstration on how to cook food using dry fat frying and deep-frying methods.</li> <li>• In groups, learners with low vision are guided to cook foods using dry fat frying and deep frying methods. Learners with blindness are given one on one support to cook foods using dry fat frying and deep frying methods by being guided to gently lower the foods into hot oil as they take care not to be burnt.</li> </ul>	<ol style="list-style-type: none"> <li>1. How do we cook foods using dry fat frying and deep-frying methods?</li> <li>2. Why is dry fat frying and deep frying important?</li> </ol>
<b>Core competencies to be developed:</b> <ul style="list-style-type: none"> <li>• Learning to learn: A learner applies cooking knowledge to carry out dry frying and deep-frying processes.</li> </ul>				

<ul style="list-style-type: none"> <li>Digital Literacy: A learner uses digital devices with assistive technology to watch and listen to audio-visual clips on cooking using dry fried and deep fried foods.</li> </ul>
<p><b>Values:</b> Responsibility: A learner cleans and stores items they have used for cooking and serving appropriately.</p>
<p><b>Pertinent and contemporary issues:</b> Safety and Security: A learner takes precautions while working with fire and hot fats and oils.</p>
<p><b>Link to other subjects:</b></p> <ul style="list-style-type: none"> <li>Pre-technical Studies: A learner observes safety for self and others as they use hot oils and fats to dry fat fry and deep fry foods.</li> <li>Science and technology: A learner acquires knowledge on the importance of correct measurement of food ingredients.</li> </ul>
<p><b>Suggested Learning resource:</b></p> <ul style="list-style-type: none"> <li>Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers</li> <li>Audio visual clips</li> <li>Frying pans</li> <li>Deep frying pans</li> <li>Cooking oil</li> <li>Food items</li> <li>Fuel</li> <li>First Aid kit</li> </ul>

### Suggested Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to describe food production processes:  <i>(growing vegetables, use of domestic animals, preservation of cereals and pulses, cooking by frying).</i>	Describes <i>four</i> food production processes.	Describes <i>three</i> food production processes.	Describes <i>two</i> food production processes.	Describes one or no food production processes.

<p>Ability to apply food production processes at household level.</p> <p><i>(growing vegetables, use of domestic animals, preservation of cereals and pulses, cooking by frying).</i></p>	<p>Applies <i>four</i> food production processes at household level.</p>	<p>Applies <i>three</i> food production processes at household level.</p>	<p>Applies <i>two</i> food production processes at household level.</p>	<p>Applies one or no food production processes at household level.</p>
<p>Ability to upholds integrity in carrying out activities of food production processes:</p> <p><i>(commitment to tasks, is honest, has prudence in use of resources and is accountable).</i></p>	<p>Upholds <i>four</i> indicators of integrity in carrying out activities of production processes.</p>	<p>Upholds <i>three</i> indicators of integrity in carrying out activities of production processes.</p>	<p>Upholds two indicators of integrity in carrying out activities of production processes.</p>	<p>Upholds one or no indicators of integrity in carrying out activities of production processes.</p>

### STRAND 3.0: HYGIENE PRACTICES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>3.0 Hygiene Practices</b>	<b>3.1 Good Grooming Practices</b> <ul style="list-style-type: none"> <li>• <i>Dressing</i></li> <li>• <i>Etiquette</i></li> </ul>	By the end of the sub strand, the learner should be able to: <ol style="list-style-type: none"> <li>a) describe good grooming as a daily health habit,</li> <li>b) practice good grooming as a daily health habit,</li> <li>c) appreciate good grooming as a healthy habit.</li> </ol>	<ul style="list-style-type: none"> <li>• Learners are guided to discuss in groups and share experiences on aspects of good grooming (dressing and etiquette) for different occasions.</li> <li>• Learners with low vision are guided to use digital devices with assistive technology or appropriate print materials while learners with blindness are guided to use digital devices with assistive technology or Braille materials to search for information on good grooming practices.</li> <li>• Learners are guided to demonstrate different ways of dressing and etiquette for different activities or occasions</li> <li>• In groups, learners with low vision are guided to conduct class modeling on different ways of dressing and etiquette to appreciate good grooming habits for different activities. Learners with blindness are given one on one demonstration to conduct class modeling on different ways of dressing and etiquette to appreciate good grooming habits for different activities. Learners with blindness are guided to tactually explore in order to feel the texture and type of fabric of the clothes worn during different occasions then given clear verbal descriptions.</li> </ul>	<ol style="list-style-type: none"> <li>1. How does good grooming promote personal hygiene?</li> <li>2. Why is good grooming important?</li> </ol>
<p><b>Core competencies to be developed:</b></p> <ul style="list-style-type: none"> <li>• Self-efficacy: A learner expresses confidence and demonstrates different ways of dressing for different occasions to promote good grooming.</li> <li>• Communication and collaboration: Speaking and listening skills are developed as learners express themselves and share ideas on aspects of good grooming.</li> </ul>				



**Values:**

Respect: A learner listens, takes turns and accommodates each other's opinion during discussion on aspects of good grooming.

**Pertinent and contemporary issues:**

Personal hygiene: A learner adopts good grooming while carrying out daily chores.

**Link to other subjects:**

Social studies: A learner demonstrates descent and culturally accepted mode of dressing to promote good grooming.

**Suggested Learning Resources:**

- Print reference materials in appropriate font size and colour contrast with pictures of individuals dressed for different occasions
- Braille reference materials
- Clothes for different activities or occasions
- Shoes for different activities or occasions
- Digital Devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>3.0 Hygiene Practices</b>	<b>3.2 Home hygiene</b>	<p>By the end of the sub strand, the learner should be able to:</p> <ul style="list-style-type: none"> <li>a) identify surfaces made from different materials in the home environment,</li> <li>b) clean different types of surfaces in the home environment,</li> <li>c) appreciate living in a clean home environment to promote healthy living.</li> </ul>	<ul style="list-style-type: none"> <li>• Learners are guided to discuss and share experiences on surfaces made from different materials such as glass, wooden, earthen floors, cemented and tiled. Learners with blindness are guided to tactually explore different surfaces in order to feel their texture and identify the materials used to make the surfaces.</li> <li>• Learners with low vision are guided to use digital devices with assistive technology or appropriate print materials to search for information on how to clean different types of surfaces, while learners with blindness are guided to use digital devices with assistive technology or Braille materials to search for information on how to clean different types of surfaces.</li> <li>• In groups, learners with low vision are guided to clean different types of surfaces such as glass, wooden, earthen floors, cemented and tiled. Learners with blindness are given one on one support and guided on the direction of cleaning and how to hold the cleaning materials/equipment as they clean different types of surfaces such as glass, wooden, earthen floors, cemented and tiled.</li> </ul>	<p>How do you clean surfaces made from different materials?</p>
<b>Core competencies to be developed:</b>				

- Communication and collaboration: Listening and speaking skills are developed as a learner discusses and shares experiences on cleaning surfaces made from different materials.
- Learning to learn: A learner applies the knowledge of cleaning to clean different types of surfaces made from different materials.
- Digital Literacy: A learner uses digital devices with assistive technology to search for information on how to clean different types of surfaces.

**Values:**

Responsibility: A learner uses correct procedures to properly clean different types of surfaces and maintain home hygiene.

**Pertinent and contemporary issues:**

Disaster and risk reduction: A learner takes precautions to avoid injury while cleaning different surfaces.

**Link to other subjects:**

Mathematics: A learner uses the correct measurement of cleaning detergents when cleaning different surfaces.

Science and technology: A learner practices activities that promote home and environmental hygiene.

**Suggested Learning Resources:**

- Print reference materials in appropriate font size and colour contrast
- Braille reference materials
- Digital Devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers
- Water
- Hand brooms
- Basins
- Surfaces made from different materials such as glass, wooden, earthen floors, cemented and tiled
- Glass
- Wood
- Moppers
- Cleaning agents
- Brush
- Old newspapers
- Old towels/dusters

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
3.0 Hygiene Practices	3.3 Laundering Cotton item	By the end of the sub strand, the learner should be able to: a) describe how to launder a cotton item for personal hygiene, b) launder a cotton item for personal hygiene, c) appreciate the importance of laundry work for hygiene purposes.	<ul style="list-style-type: none"> <li>Learners with low vision are guided to watch and listen to audio-visual clips on how to launder a cotton item and take notes (white and fast-coloured cotton). Learners with blindness are guided to listen to audio-visual clips on how to launder a cotton item and take notes (white and fast-coloured cotton). Provide clear verbal descriptions of the visual elements in the clips.</li> <li>Learners with low vision are given a demonstration on how to launder a white and fast coloured cotton item while learners with blindness are given hands on demonstration on how to launder a white and fast-coloured cotton item. Guide learners with blindness on how to measure the correct amount of detergent, rub the item and how to hang the item to dry.</li> <li>In groups, learners are guided to practice laundering a white and fast-coloured cotton item.</li> </ul>	How does laundering cotton items promote hygiene?
<p><b>Core competencies to be developed:</b></p> <ul style="list-style-type: none"> <li>Learning to learn: A learner adopts learnt skills to launder personal items.</li> <li>Communication and collaboration: Teamwork is enhanced as a learner works in groups exchanging ideas and supporting one another as they practice laundering of white and fast-coloured items.</li> </ul>				
<p><b>Values:</b> Unity: A learner cooperates with others when working in groups to practice laundering of white and fast-coloured items.</p>				
<p><b>Pertinent and contemporary issues:</b> Health Promotion Issues: A learner launders cotton items for personal hygiene</p>				
<p><b>Link to other subjects:</b></p> <ul style="list-style-type: none"> <li>Mathematics: A learner uses correct measurements of cleaning detergents when cleaning and laundering white and fast-coloured items.</li> <li>Science and technology: A learner launders white and fast-coloured items for personal hygiene.</li> </ul>				
<p><b>Suggested Learning Resources:</b></p>				

- Clean water
- White coloured cotton items
- Fast-coloured items
- Cleaning detergents
- Basins/buckets
- Pegs
- Clothe line

**Suggested Assessment Rubric**

<b>Level</b> <b>Indicator</b>	<b>Exceeds Expectations</b>	<b>Meets Expectations</b>	<b>Approaches Expectations</b>	<b>Below Expectations</b>
Ability to describe hygiene practices as a daily health habit:  <i>(good grooming, home hygiene, laundering items).</i>	Describes four hygiene practices observed as daily health habits.	Describes three hygiene practices observed as daily health habits.	Describes two hygiene practice observed as a daily health habit.	Describes one or no hygiene practice observed as daily health habits.
Ability to carry out hygiene practices as a daily health habit.  <i>(good grooming, home hygiene, laundering items).</i>	Carries out four hygiene practices observed as daily health habits.  (good grooming, home hygiene, laundering items) as daily health with specific attention to details.	Carries out three hygiene practices observed as daily health habits.	Carries out two hygiene practices observed as a daily health habit.	Carries out one or no hygiene practice observed as daily health habit.
Ability to exhibit responsibility in hygiene practices:  <i>(care for self, own property and others, observe safety and is self-directed).</i>	Exhibits four aspects of responsibility in hygiene practices.	Exhibits three aspects of responsibility in hygiene practices.	Exhibits two aspects of responsibility in hygiene practices.	Exhibits one or no aspect of responsibility in hygiene practices.

## STRAND 4.0 PRODUCTION TECHNIQUES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>4.0 Production Techniques</b>	<b>4.1 Repairing Garments</b>	By the end of the sub strand, the learner should be able to: <ol style="list-style-type: none"> <li>identify stitches used in repairing garments,</li> <li>make samples of stitches used to repair garments,</li> <li>use the stitches to repair gapping seam,</li> <li>appreciate the use of stitches to repair garments.</li> </ol>	<ul style="list-style-type: none"> <li>Learners are guided to listen to a resource person explaining stitches such as back stitches and running stitches used in repairing garments and take notes.</li> <li>Learners with low vision are guided to use pictures, samples of garments, audio-visual clips or charts to identify stitches such as <i>back stitch and running stitch</i> used in repairing garments. Learners with blindness are guided to tactually explore samples of garments and tactile diagrams to identify patterns of stitches such as <i>back stitch and running stitch</i> used in repairing garments.</li> <li>Individually, learners with low vision are given a demonstration on how to use back and running stitches to repair garments. Learners with blindness are guided to locate the eye of the needle, thread the needle, the correct way of holding a garment and the direction of stitching a garment when repairing using back and running stitches.</li> <li>In groups, learners with low vision are guided to use back stitch and running stitch to repair gapping seam. Learners with blindness are given one on one support and clear verbal instructions on how to hold the needle and garment to be repaired correctly then use back stitch and running stitches to repair gapping seam.</li> </ul>	How do you repair garments?

**Core competencies to be developed:**

**Critical thinking and problem solving:** A learner uses running and back stitches to repair their garments.

**Values:**

- **Responsibility:** A learner takes care of their clothes and repairs them using back and running stitches.
- **Unity:** A learner cooperates with others when working in groups to repair a gapping seam.

**Pertinent and contemporary issues:**

**Safety and Security:** A learner takes precautions to avoid injury while making samples of running and back stitches.

**Link to other subjects:**

**Mathematics:** A learner takes correct measurements when using running and back stitches to repair garments.

**Suggested Learning Resources:**

- Chart with pictures of back and running stitches
- Thimble
- Resource person
- Clothes that need repair such as a gapping seam
- Sewing thread with appropriate colours and thickness
- Fabrics with appropriate colors
- Needles with appropriate sizes
- Garments with back and running stitches
- Pair of scissors
- Tactile ruler
- Tape measure
- Digital Devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers



Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<b>4.0 Production Techniques</b>	<b>4.2 Constructing Innovative Gardens</b> <ul style="list-style-type: none"> <li>• <i>Horizontal gardens</i></li> <li>• <i>Vertical gardens</i></li> </ul>	<p>By the end of the sub strand, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• distinguish between horizontal and vertical innovative gardening,</li> <li>• construct innovative gardens for growing crops,</li> <li>• appreciate the use of innovative gardens in growing crops.</li> </ul>	<ul style="list-style-type: none"> <li>• Learners with low vision are guided to watch audio-visual clips or observe pictures and photographs of innovative gardening practices (horizontal and vertical) while learners with blindness are guided to listen to audio-visual clips on innovative gardening practices or tactually explore models or containers with established horizontal and vertical gardens in order to differentiate between <i>vertical and horizontal gardens</i> and make presentations in class. Learners with blindness are provided with clear verbal descriptions of the visual elements in the clips.</li> <li>• In groups, learners with low vision are guided to use <i>sacks, plastic bottles, walls, plastic pipes</i> among others to construct vertical and horizontal gardens for growing crops. Learners with blindness are guided to touch, explore and feel materials such as sacks, plastic bottles, walls and plastic pipes then be given one on one support to construct vertical and horizontal gardens for growing crops using the provided materials.</li> <li>• Learners with low vision are guided to use vertical and horizontal gardens to grow appropriate crops. Learners with blindness are given one on one support to use vertical and horizontal gardens to grow appropriate crops. Guide learners with blindness to on how to innovatively arrange, hang or suspend the</li> </ul>	<p>How is gardening done on vertical and horizontal spaces?</p>

			containers to achieve vertical and horizontal gardens.	
<p><b>Core competencies to be developed:</b></p> <ul style="list-style-type: none"> <li>• Imagination and creativity: A learner develops innovative skills as they construct and use vertical and horizontal gardens to grow appropriate crops using small spaces.</li> <li>• Digital Literacy: A learner uses digital devices with assistive technology to watch and listen to audio-visual clips on innovative horizontal and vertical gardens.</li> </ul>				
<p><b>Values:</b></p> <ul style="list-style-type: none"> <li>• Unity: A learner cooperates with others when working in groups to construct vertical and horizontal gardens to grow appropriate crops.</li> <li>• Respect: A learner listens, takes turns and accommodates each other's opinion during presentations in class.</li> </ul>				
<p><b>Pertinent and contemporary issues:</b></p> <p>Education for sustainable development: A learner uses innovative gardens to grow appropriate crops.</p>				
<p><b>Link to other subjects:</b></p> <p>Creative Arts: A learner innovatively constructs vertical and horizontal gardens and artistically uses them to grow appropriate crops.</p>				
<p><b>Suggested Learning Resources:</b></p> <ul style="list-style-type: none"> <li>• Reference materials in print with appropriate font size and colour contrast</li> <li>• Braille reference materials</li> <li>• Digital devices with assistive technology such as screen reader, talkback, braille display, screen magnifiers</li> <li>• Containers with horizontal gardens</li> <li>• Containers with vertical gardens</li> <li>• Planting materials such as seeds, seedlings or vegetative materials</li> <li>• Garden tools and equipment such as wheelbarrow, jembes, garden trowel, watering can</li> <li>• Cutting tools such as hand saw. Hack saw, sharp knife</li> <li>• Materials for constructing innovative horizontal and vertical innovative gardens such as sacks, plastic bottles, walls, plastic pipes, old tyres</li> <li>• Materials for hanging or suspending the innovative gardens such as wire mesh, wooden posts, wooden planks, strings, wire loops</li> <li>• Soil or any appropriate planting media</li> <li>• Manure</li> <li>• Tactile ruler</li> <li>• Tape measure</li> </ul>				

### Suggested Assessment Rubric

<b>Level</b> <b>Indicator</b>	<b>Exceeds Expectations</b>	<b>Meets Expectations</b>	<b>Approaches Expectations</b>	<b>Below Expectations</b>
Ability to explain various techniques in production processes:  <i>(repair of garments, construction of vertical, and construction of horizontal gardens).</i>	Explains <i>four</i> production techniques in production processes:	Explains <i>three</i> production techniques in production processes:  .	Explains <i>two</i> production techniques in production processes:	Explains one or no production technique in production processes.
Ability to apply various techniques in production processes:  <i>(repair of garments, construction of vertical, and construction of horizontal gardens).</i>	Applies <i>four</i> techniques in various production processes.	Applies <i>three</i> techniques in various production processes.	Applies <i>two</i> techniques in various production processes.	Applies one or no technique in production process.
Ability to exhibit creativity and imagination in carrying out various production techniques:  <i>(Generates new ideas, combines different concepts, uses creativity in work contexts, actualises imagined ideas).</i>	Exhibits <i>four</i> indicators of creativity and imagination in various production techniques.	Exhibits <i>three</i> indicators of creativity and imagination in various production techniques.	Exhibits <i>two</i> indicators of creativity and imagination in various production techniques.	Exhibits <i>one or no</i> indicators of creativity and imagination in various production techniques.

## APPENDIX 1: COMMUNITY SERVICE LEARNING PROJECT

### CSL at Upper Primary (grade 4-6)

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 Social Studies learning area. The implementation of the CSL activity is a collaborative effort where the class teacher coordinates and works with other subject teachers to design and implement the integrated CSL activity. Though they are teacher-guided, the learners should progressively be given more autonomy to identify problems and come up with solutions. 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:

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

## 2) **Implementation 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. 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 emphasized 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 and values demonstrated. 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 or rating scale or any other appropriate tool.

### APPENDIX II: LIST OF SUGGESTED ASSESSMENT METHODS, SUGGESTED LEARNING RESOURCES AND SUGGESTED NON-FORMAL ACTIVITIES

Strand	Sub strand	Suggested assessment methods	Suggested Learning Resources	Suggested No-formal Activities to Support Learning
<b>1.0 CONSERVATION OF RESOURCES</b>	<b>1.1 Soil Conservation</b>	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and peer assessment e) Project	<ul style="list-style-type: none"> <li>● Reference materials in print with appropriate font size and color contrast</li> <li>● Braille reference materials</li> <li>● Garden tools and equipment such as jembes, shovel, manure fork, wheelbarrows</li> <li>● Decomposing materials</li> <li>● Plant residues</li> <li>● Old containers such as drums, tanks, waste bins,</li> <li>● Wood ash</li> <li>● Water</li> <li>● Soil.</li> <li>● Tactile ruler</li> <li>● Models of organic pits</li> </ul>	<ul style="list-style-type: none"> <li>● Collect suitable composting materials from the environment,</li> <li>● Visit gardens in the neighborhood to observe water conservation measures and integrated farming.</li> <li>● Learners to initiate soil conservation measures in the school based on common forms of erosion in the environment.</li> </ul>

	<p><b>1.2 Water Conservation</b></p>	<p>a) Written assignments in print and in Braille</p> <p>b) Oral questioning</p> <p>c) Observation</p> <p>d) Self and peer assessment</p> <p>e) Project</p>	<ul style="list-style-type: none"> <li>• Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers</li> <li>• Print reference materials in appropriate font size and colour contrast</li> <li>• Braille reference materials</li> <li>• Cover crops</li> <li>• Dry plant materials</li> <li>• Wood shavings</li> <li>• Wooden poles/posts/stakes for erecting shade</li> <li>• Shading nets/improvised materials for shading</li> <li>• Water</li> <li>• Containers for innovative gardening</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage learners to participate in the 4K Club activities to establish a kitchen or backyard garden and carry out water conservation practice such as mulching, planting cover crops and shading.</li> <li>• Learners to initiate water harvesting and conservation based on common forms of water wastage points in the school.</li> </ul>
--	--------------------------------------	---	---	--

	<b>1.3 Conserving wild animals</b>	<p>a) Written assignments in print and in Braille</p> <p>b) Oral questioning</p> <p>c) Observation</p> <p>d) Self and Peer assessment</p>	<ul style="list-style-type: none"> <li>• Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers</li> <li>• Audio-visual clips</li> <li>• Resource person</li> <li>• Firewood from bad smelling trees</li> <li>• Repellants</li> <li>• Rattles</li> <li>• Radio</li> <li>• Drums</li> <li>• Whistles</li> <li>• Strings</li> <li>• Old CDs</li> <li>• Ribbons from old radio cassettes</li> </ul>	<ul style="list-style-type: none"> <li>• Learners to initiate bird feeding tables to attract and nourish wild birds using waste foods.</li> <li>• Encourage learners to participate in music club to compose songs and recite poems to create awareness on how to keep off small wild animals from crops without killing them.</li> </ul>
<b>2.0 FOOD PRODUCTION PROCESSES</b>	<b>2.1 Growing vegetables</b>	<p>a) Written assignments in print and in Braille</p> <p>b) Oral questioning</p> <p>c) Observation</p> <p>d) Self and Peer assessment</p> <p>e) Project</p>	<ul style="list-style-type: none"> <li>• Vegetable seeds</li> <li>• Vegetable seedlings</li> <li>• Garden tools and equipment such as jembes, rakes, garden trowel, wheelbarrows, shovel, garden line, tape measure, watering cans, garden line</li> <li>• Shading nets/any other shading material</li> <li>• Organic manures</li> <li>• Appropriate sites for establishing vegetable nursery beds</li> <li>• Appropriate fertilizers</li> <li>• Dry grass or any other mulching material</li> <li>• Containers gardens</li> </ul>	Learners to initiate demonstration nursery beds within the school and grow vegetables such as onions, spinach, carrots, kales or cabbages in the 4K Club activities.



			<ul style="list-style-type: none"> <li>• Tactile rulers</li> </ul>	
	<p><b>2.2 Uses of Domestic animals</b></p>	<p>a) Written assignments in print and in Braille</p> <p>b) Oral questioning</p> <p>c) Observation</p> <p>d) Self and Peer assessment</p>	<ul style="list-style-type: none"> <li>• Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers</li> <li>• Chart with pictures of domestic animals</li> <li>• Tactile diagrams of domestic animals</li> <li>• Models of domestic animals</li> <li>• Animal products such as milk, manure, meat, eggs</li> </ul>	<ul style="list-style-type: none"> <li>• Learners visit a farm rearing various domestic animals and enquire from the farmer about the uses of the animals on the farm.</li> <li>• Encourage learners to take part in activities of the Young Farmers club like obtaining and collecting various products from animals like milk, eggs, wool in order to relate domestic animals to their uses.</li> </ul>

	<b>2.3 Preservation and storage of cereals and pulses</b>	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment	<ul style="list-style-type: none"> <li>• Print reference materials in appropriate font size and colour contrast</li> <li>• Braille reference materials</li> <li>• Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers</li> <li>• Locally available cereals</li> <li>• Locally available legumes</li> <li>• Ash</li> <li>• Airtight containers</li> <li>• Sacks</li> <li>• Canvas mats/Tarpaulins</li> </ul>	Learners visit a farm that has harvested cereals and legumes and engage in preservation and storage activities.
	<b>2.4 Food Nutrients</b>	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment	<ul style="list-style-type: none"> <li>• Print reference materials in appropriate font size and colour contrast</li> <li>• Braille reference materials</li> <li>• Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers</li> <li>• Locally available food items - carbohydrates, vitamins, proteins, fats</li> <li>• Chart with photographs of food materials - carbohydrates, vitamins, proteins, fats</li> </ul>	Learners visit a market within the school environment and categorise the foods sold in the market into carbohydrates, vitamins, proteins and fats.
	<b>2.5 Cooking Food</b> <ul style="list-style-type: none"> <li>• Dry Fat Frying</li> <li>• Deep Frying</li> </ul>	a) Written assignments in print and in Braille b) Oral questioning c) Observation	<ul style="list-style-type: none"> <li>• Audio visual clips</li> <li>• Frying pan</li> <li>• Deep frying pans</li> <li>• Cooking oil</li> <li>• Food items</li> <li>• Fuel</li> <li>• First Aid kit</li> </ul>	Learners visit a restaurant or a fast food joint to identify foods that have been dry fat and deep fried and also takes part in preparing

		d) Self and Peer assessment e) Project		foods through deep and dry fat frying.
<b>3.0 HYGIENE PRACTICES</b>	<b>3.1 Good Grooming Practices</b>  • <b>Dressing</b> • <b>Etiquette</b>	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment	<ul style="list-style-type: none"> <li>• Print reference materials in appropriate font size and colour contrast with pictures of individuals dressed for different occasions</li> <li>• Braille reference materials</li> <li>• Clothes for different activities or occasions</li> <li>• Shoes for different activities or occasions</li> <li>• Digital Devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers</li> </ul>	Learners keep an activity schedule of personal grooming practices they carry out when attending various activities or occasions for one month.

	<b>3.2 Home hygiene</b>	<p>a) Written assignments in print and in Braille</p> <p>b) Oral questioning</p> <p>c) Observation</p> <p>d) Self and Peer assessment</p> <p>e) Project</p>	<ul style="list-style-type: none"> <li>• Print reference materials in appropriate font size and colour contrast</li> <li>• Braille reference materials</li> <li>• Clean water</li> <li>• Hand brooms</li> <li>• Basins</li> <li>• Surfaces made from different materials such as glass, wooden, earthen floors, cemented and tiled</li> <li>• Glass</li> <li>• Wood</li> <li>• Moppers</li> <li>• Cleaning agents</li> <li>• Brush</li> <li>• Old newspapers</li> <li>• Old towels/dusters</li> </ul>	Learners engage in environmental club activities to clean various surfaces within the school environment.
	<b>3.3 Laundering Cotton item</b>	<p>a) Written assignments in print and in Braille</p> <p>b) Oral questioning</p> <p>c) Observation</p> <p>d) Self and Peer assessment</p>	<ul style="list-style-type: none"> <li>• Clean water</li> <li>• White coloured cotton items</li> <li>• Fast-coloured items</li> <li>• Cleaning detergents</li> <li>• Basins/buckets</li> <li>• Pegs</li> <li>• Clothe line</li> </ul>	Encourage learners to practice laundering white and fast-coloured cotton items in the Home Economics Club activities.

<p><b>4.0 PRODUCTION TECHNIQUES</b></p>	<p><b>4.1 Repairing Garments</b></p>	<p>a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment e) Project</p>	<ul style="list-style-type: none"> <li>• Chart with pictures of back and running stitches</li> <li>• Thimble</li> <li>• Resource person</li> <li>• Clothes that need repair such as a gapping seam</li> <li>• Sewing thread with appropriate colours and thickness</li> <li>• Fabrics with appropriate colors</li> <li>• Needles with appropriate sizes</li> <li>• Garments with back and running stitches</li> <li>• Pair of scissors</li> <li>• Tactile ruler</li> <li>• Tape measure</li> <li>• Digital Devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers</li> </ul>	<ul style="list-style-type: none"> <li>• Learners engage in the activities of the Home Economics Club to repair gapping seams on garments using back and running stitches.</li> <li>• Carry out an exhibition to display repaired items using back and running stitches.</li> </ul>
---	--	---	--	---

<p><b>4.0 PRODUCTION TECHNIQUES</b></p>	<p><b>4.2 Constructing Innovative Gardens</b></p> <ul style="list-style-type: none"> <li>• Horizontal gardens</li> <li>• Vertical gardens</li> </ul>		<ul style="list-style-type: none"> <li>• Reference materials in print with appropriate font size and colour contrast</li> <li>• Braille reference materials</li> <li>• Digital devices with assistive technology such as screen reader, talkback, refreshable braille display, screen magnifiers</li> <li>• Containers with horizontal gardens</li> <li>• Containers with vertical gardens</li> <li>• Planting materials such as seeds, seedlings or vegetative materials</li> <li>• Garden tools and equipment such as wheelbarrow, jembes, garden trowel, watering can</li> <li>• Cutting tools such as hand saw. Hack saw, sharp knife</li> <li>• Materials for constructing innovative horizontal and vertical innovative gardens such as sacks, plastic bottles, walls, plastic pipes, old tyres</li> <li>• Materials for hanging or suspending the innovative gardens such as wire mesh, wooden posts, wooden planks, strings, wire loops</li> <li>• Soil or any appropriate planting media</li> <li>• Manure</li> <li>• Tactile ruler</li> <li>• Tape measure</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
---	--	--	---	---