REPUBLIC OF KENYA
MINISTRY OF EDUCATION

UPPER PRIMARY CURRICULUM DESIGN

AGRICULTURE

GRADE 4

FOR LEARNERS WITH VISUAL IMPAIRMENT

KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

A Skilled and Ethical Society

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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 rationalization and review of the basic education curriculum.

The reviewed Grade Four curriculum designs for learners with visual impairment build on competencies attained by learners at Grade three. 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
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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 Four curriculum furthers implementation of the CBC from Grade Three 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 realization 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 Four 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 Four and prepare them for smooth transition to Grade Five. Furthermore, it is my hope that teachers will use the adapted designs to make learning interesting, exciting and enjoyable.

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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 conceptualized 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 Four 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 Four 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 Four and preparation of learners with visual impairment for transition to Grade Five.

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TABLE OF CONTENTS

NATIONAL GOALS OF EDUCATION

Kenya should:

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

S/No	Learning Area	Number of Lessons Per week
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
Total		**35**

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. The learner with blindness and the learner with low vision 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, learner 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 GRADE 4

Strands	Sub Strands	Suggested Number of Lessons
1.0 Conservation of Resources	1.1 Soil Conservation	7
	1.2 Water Conservation	7
	1.3 Fuel Conservation	7
	1.4 Conserving Wild Animals	8
2.0 Food Production Processes	2.1 Direct Sowing of Tiny Seeds	8
	2.2 Growing Fruits	16
	2.3 Uses of Domestic Animals	8
	2.4 Balanced Meal	9
	2.5 Cooking Food	11
3.0 Hygiene Practices	3.1 Personal Hygiene	10
	3.2 Domestic Hygiene	9
	3.3 Cleaning Personal Protective Equipment	9
4.0 Production Techniques	4.1 Making Tacking Stitches	11
	Total Number of Lessons	**120**

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 question
1.0 Conservation of Resources	**1.1 Soil Conservation**	By the end of the sub strand, the learner should be able to: a) identify suitable materials for making compost manure in farming, b) prepare compost manure for farming, c) appreciate the importance of compost manure in farming.	• In groups, learners discuss suitable materials for making compost manure based on their local environment and take notes. • Learners with low vision are guided to observe a well labeled diagram showing the heap method of making compost manure for use in gardening activities. Learners with blindness are guided to touch and explore a well labeled tactile diagram or a model of a compost made using the heap method to feel and identify the order in which materials are arranged when making the compost heap. • Learners with low vision are guided to collect suitable materials and make compost manure using a heap method. Learners with blindness are guided to touch, explore and feel samples of materials for making compost manure such as slashed vegetation, kitchen wastes or any other available organic wastes, then collect suitable materials for making compost heap from the environment. • In pairs or groups, learners with low vision practice the learnt skills in making compost manure using slashed vegetation, kitchen wastes or any other available organic wastes and use it in their gardening activities. Learners with blindness are given one on one support to make compost manure using the heap method then guided to touch, feel and smell the compost	How can composting conserve the environment?

			manure to detect its readiness for use in their gardening activities.	

Core competencies to be Developed:

- Communication and collaboration: A learner develops speaking and listening skills as they express themselves and shares ideas on suitable materials for making compost manure.
- Self-efficacy: Learners express themselves and give their opinions during discussion on suitable materials for making compost manure.
- Learning to learn: A learner applies the knowledge of making manure to make compost manure using the heap method.

Values:

- Respect: A learner listens actively, practices turn taking and accommodates each other's opinion during the discussion.
- Unity: Learners work in pairs agreeing on the steps of making compost manure using the heap method.

Pertinent and contemporary issues:

Environmental Education and Climate Change: A learner conserves and preserves the environment by collecting suitable materials and making compost manure using the heap method.

Link to Other Learning Areas:

- English: A learner develops vocabulary as they discuss and note suitable materials for making compost manure using the heap method.
- Science and Technology: A learner cleans their environment as they collect material to use for compost manure preparation.

Suggested Learning Resources:

- Reference materials in print with appropriate font size and colour contrast
- Braille reference materials
- Tactile diagram of a compost heap
- Model of a compost heap
- Chart with diagrams on compost heap
- Jembe
- Rake
- Containers
- Gloves
- Tactile ruler
- Gumboots
- Organic waste material such as slashed vegetation, kitchen wastes
- Spade
- Manure fork

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
1.0 Conservation of Resources	**1.2 Water Conservation**	By the end of the sub strand, the learner should be able to: a) describe drip irrigation as a way of conserving water in farming, b) carry out drip irrigation to conserve water in farming, c) appreciate the use of drip irrigation in conserving water in farming.	• 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 drip irrigation as a way of conserving water then take notes. • Learners with low vision are guided to observe pictures showing drip irrigation as a method of water conservation in an agricultural environment. Learners with blindness are guided to touch and explore a tactile diagram or a model of a drip irrigation equipment to familiarize with the size, shape and connections of the drip pipes. • Learners share with peers in class their findings on drip irrigation as a way of conserving water. • Learners with low vision are guided to innovate drip equipment using water pipes and available containers then use the drip equipment to irrigate a demonstration plot. Learners with blindness are guided to touch and explore the locally available equipment and materials for making drip irrigation such as water pipes, containers, piercing objects and pegs. The learners with blindness are given one on one support to innovate a drip irrigation equipment by first measuring and cutting the correct size of the pipes, connecting the pipes and using the drip equipment to irrigate a demonstration plot.	1. How does drip irrigation conserve water? 2. Why is drip irrigation a good method of conserving water?
Core competencies to be developed:				

- Creativity and Imagination: A learner assembles containers and connects pipes when innovating drip irrigation equipment.
- Learning to learn: A learner applies the knowledge learnt to innovate equipment for drip irrigation as a way of conserving water.
- Communication and Collaboration: Learners reinforce speaking and listening skills as they collaboratively communicate and discuss while innovating drip irrigation equipment.
- Self-efficacy: A learner develops effective communication skills when describing drip irrigation as a way of conserving water to peers in class.

Values:

- Responsibility: A learner performs tasks assigned and observes safety while working with tools and equipment.
- Respect: Learners listen, take turns and accommodate each other's opinion while describing drip irrigation.

Pertinent and contemporary issues:

- Environmental Education and Climate Change: A learner conserves water through drip irrigation and practices proper use of natural resources for posterity
- Safety and Security: A learner observes safety for self and others when using cutting tools.

Link to other subjects:

- Social studies: A learner uses available waste containers to make drip irrigation equipment.
- Creative Arts: A learner creatively innovates a drip irrigation equipment using water pipes and available containers and uses the drip irrigation in gardening activities.

Suggested Learning Resources:

- Reference materials in print with appropriate font size and colour contrast
- Braille reference materials
- Water pipes
- Digital devices with assistive technology such as screen magnifiers, refreshable braille displays, screen readers, text-to-speech systems
- Containers
- Cutting tools
- Water
- Perforating equipment such as a sharp nail, knife
- Demonstration plot with crops

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
1.0 Conservation of Resources	**1.3 Fuel Conservation**	By the end of the sub strand, the learner should be able to: a) identify types of fuel used at home, b) use and conserve fuel in cooking by putting off fire when done and using fuel efficient equipment when cooking, c) appreciate the importance of conserving fuel to minimize wastage of resources.	• In groups, learners are guided to discuss and share ideas on types of fuels used at home such as charcoal, firewood, gas and kerosene. • Learners with low vision are guided to use digital devices or appropriate print materials while learners with blindness use digital devices with assistive technology or braille materials to search for information on ways of conserving fuel in cooking and take notes. • Learners with low vision are guided to practice ways of conserving fuel such as putting off fire immediately when you finish cooking and using fuel efficient equipment when cooking. Learners with blindness are given one on one support to touch the knob of a gas cooker, stove or any available cooking equipment and also given orientation on the right direction to turn the knob to put off the equipment, touch and feel the arrangement of firewood in a cooking place and be guided on how to pull off firewood safely to put off fire in order to practice ways of conserving fuel such as putting off fire immediately when you finish cooking and using fuel efficient equipment.	How does reducing fuel wastage conserve our resources?

Core competencies to be developed:

- Learning to learn: A learner applies the knowledge of fuel conservation such as putting off fire when done and using fuel efficient equipment when cooking.
- Self-efficacy: A learner brainstorms and shares ideas with peers on types of fuels such as *charcoal, firewood, gas, kerosene,* used at home.

Values:

- Responsibility: A learner takes precautionary measures when using fuel.
- Respect: Learners listen, take turns and accommodate each other's opinion as they brainstorm and enumerate types of fuel.

Pertinent and contemporary issues (PCIs):

- Life skills: A learner gains knowledge on how to reduce wastage of fuel by putting off fire immediately when done.
- Safety and security: A learner practices ways of conserving fuels such as putting off fire immediately when done.

Link to other subjects:

Social studies: A learner uses fuel efficiently to reduce the cutting of trees for firewood and charcoal burning.

Suggested Learning Resources:

- Digital devices with assistive technology such as screen readers, talk back, braille display and screen magnifiers
- Reference materials in print with appropriate font size and colour contrast
- Braille reference materials
- Charcoal
- Firewood
- Jiko
- Kerosene stove
- Kerosene
- Gas Cylinder
- Matchbox
- First aid kit

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
Conservation of Resources	**1.4 Conserving wild animals**	By the end of the sub strand, the learner should be able to: a) identify small wild animals that destroy crops, b) construct and use a scarecrow to keep off small wild animals from crops, c) appreciate the importance of living better with small wild animals.	• Learners with low vision are guided to use digital devices or appropriate print materials while learners with blindness use digital devices with assistive technology or Braille materials to search for information on small wild animals (hares, squirrels, monkeys) that destroy crops, take notes and present their findings in class. • Learners with low vision are guided to observe pictures of small wild animals (hares, squirrels, monkeys) that destroy crops. Learners with blindness are guided to manipulate tactile diagrams or models as they are given clear verbal descriptions of small wild animals that destroy crops. • In groups, learners with low vision are guided to construct a scarecrow using locally available materials and install the scarecrows in the immediate environment to keep off small wild animals. Learners with blindness are given one on one support to manipulate the locally available materials for constructing a scarecrow and with one on one support use the materials to construct then install the scarecrow in the immediate environment to keep off small wild animals.	1. How are small wild animals important to us? 2. How can we conserve small wild animals?
Core competencies to be developed: • Self-efficacy: A learner communicates with confidence as they share ideas during presentation of the findings on small wild animals that destroy crops. • Imagination and creativity: A learner constructs a scarecrow using locally available materials and installs the scarecrows in the immediate environment.				

• Digital literacy: A learner uses digital devices with assistive technology to search for information on small wild animals that destroy crops.
Values: Responsibility: A learner carries out assigned roles to construct a scarecrow using locally available materials.
Pertinent and contemporary issues: Socio-economic Issues: A learner constructs scarecrows to keep off small animals rather than killing them.
Link to other subjects: Creative Arts: A learner designs and constructs a scarecrow using locally available materials and installs them in the immediate environment.
Suggested Learning Resources: • Digital devices with assistive technology such as screen readers, talk back, braille display and screen magnifiers • Reference materials in print with appropriate font size and colour contrast • Braille reference materials • Internet connectivity • Timber • Old clothes • Sewing thread of appropriate thickness and colour • Needles of appropriate sizes

Suggested Assessment Rubric

Level / Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to explain conservation of *four* resources in the environment: *(soil, water, fuel, wild animals).*	Explains conservation of four resources.	Explains conservation of three resources.	Explains conservation of two resources.	Explains conservation of less than two resources.
Ability to conserve *four* resources in the environment: *(soil,*	Conserves four resources in the environment.	Conserves three resources in the environment.	Conserves two resources in the environment.	Conserves less than two resources in the environment.

water, fuel, wild animals).				
Ability to show four aspects of responsibility in conservation environmental resources: *(offers leadership, observes safety, shows initiative, shows dutifulness in tasks).*	Shows four aspects of responsibility in conserving environmental resources.	Shows three aspects of responsibility in conserving environmental resources.	Shows two aspects of responsibility in conserving environmental resources.	Shows less than two aspects of responsibility in conserving environmental resources.

2.0 FOOD PRODUCTION PROCESSES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
2.0 Food Production Processes	**2.1 Direct sowing of tiny seeds**	By the end of the sub strand, the learner should be able to: a) identify crops established through direct sowing of tiny seeds in a seedbed, b) sow tiny seeds in a finely prepared seedbed, c) adopt direct sowing in the establishment of food crops.	• In groups, learners discuss and list food crops such as carrots and millet that are established through direct sowing of tiny seeds (crops that do not require transplanting). • Learners with low vision use digital devices or appropriate print materials while learners with blindness use digital devices with assistive technology or braille materials to search for information on how to sow tiny seeds. • Learners with low vision are guided to sow tiny seeds in a finely prepared ground or container seedbed. Learners with blindness are guided to touch, explore and feel tiny seeds and finely prepared ground or container seedbeds then given one on one support to sow the tiny seeds by choosing the correct method of planting i.e. either through drilling by evenly placing seeds in the drills, shallow furrows or by broadcasting millet seeds. Guide learners with blindness to use a tactile ruler to establish the correct distance between one drill and the next. • In groups, learners with low vision are guided to take care and carry out management practices on the tiny seeded crops. Learners with blindness are given hands on demonstration on how to carry out thinning of crops planted in drills and weed control through uprooting.	How does direct sowing of tiny seeds enhance food production?
Core competencies to be developed:				

• **Learning to learn:** Learner applies the knowledge of planting of food crops to establish tiny seeds such as *carrots and millet* through direct sowing. • **Communication and collaboration:** Speaking and listening skills are developed as learners express themselves and share ideas about food crops such as carrots and millet that are established through direct sowing of tiny seeds.
Values: • **Responsibility:** A learner uses the tools appropriately and carries out maintenance measures on the farm tools and equipment as well as carries out routine management practices on the tiny seeded crops.
Pertinent and contemporary issues: • **Financial literacy skills:** A learner grows tiny seeded crops and sells the produce as a source of food for animals and humans hence generating income • **Life Skills:** A learner identifies the importance of preparing soil before planting and proper placement of tiny seeds in the soil.
Link to Other Learning Areas • **Mathematics**: A learner uses correct measurement to mark the ground for seedbed preparation and also distance from one drill line to the next.
Suggested Learning Resources: • Digital devices with assistive technology such as screen readers, talk back, braille display and screen magnifiers • Reference materials in print with appropriate font size and colour contrast • Braille reference materials • Tactile ruler • Seeds of crops such as onions, millet, carrots, sorghum • Containers • Nails • Claw hammer • Water • Suitable soil • Mulching materials • Organic manure • Fertilisers • Garden tools and equipment such as jembes, rakes, pangas, slashers, watering cans, wheelbarrow, garden line

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
2.0 Food Production Processes	**2.2 Growing fruits**	By the end of the sub strand the learner should be able to: a) identify fruits that can grow in their locality, b) grow fruits suited in the locality, c) appreciate the importance of consuming fruits for nutrition.	• In groups, learners brainstorm and share information on different types of fruits that can grow in their locality. • Learners with low vision are guided to observe pictures of different fruits grown in different environments to identify fruits that are grown in environments with similar features or ecological requirements to their localities. Learners with blindness are guided to manipulate tactile diagrams or models of different fruits grown in different environments or provided with some of these real fruits (where possible) to touch, explore and feel in order to identify fruits that are grown in	1. How do we grow fruits? 2. How important are fruits?

			an environment with similar features or ecological requirements to their localities. • In groups, learners with low vision are guided to establish and take care of a fruit crop that can suitably grow in the locality such as woody fruit tree (for example, tree tomato and guava) and climbing fruits (such as passion fruit, kiwi, grapes, black berries, raspberries and gooseberries). Learners with blindness are given one on one support to use garden tools and equipment safely to establish and take care of a fruit crop that can suitably grow in the locality such as woody fruit tree (for example, tree tomato and guava) and climbing fruit trees (such as passion fruit,	

			kiwi, grapes, black berries, raspberries and gooseberries).	

Core Competencies:

- Self-efficacy: Learners confidently express themselves, airing their views and giving their opinion as they brainstorm and share ideas on different types of fruits that can grow in their locality.

Values:

- Responsibility: A learner establishes and takes care of growing fruits by applying caring practices such as mulching, watering, weeding and spraying for pests and diseases.

Pertinent and contemporary issues:

- Health promotion awareness: Learners appreciate the importance of eating fruits and health benefits of fruits.

Link to other subjects:

- Science and Technology: Learners associate the importance of fruits to our health to keeping ourselves healthy in science and technology.

Suggested learning resources:

- Reference materials in print with appropriate font size and colour contrast.
- Braille reference materials.
- Models of different fruits such as guavas, tree tomato, passion fruit, kiwi, grapes, black berries, raspberries and gooseberries
- Real fruits, from woody trees (guavas, tree tomato), and climbing fruit trees (such as passion fruit, kiwi, grapes, black berries, raspberries and gooseberries) where possible
- Chart with pictures of fruits from woody trees (guavas, tree tomato), and climbing fruit trees (such as passion fruit, kiwi, grapes, black berries, raspberries and gooseberries).
- Garden tools and equipment such as jembe, garden trowel, shovel, watering can
- Seedlings of different woody and climbing fruit trees
- Dry grass or leaves for mulching
- Manure

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
2.0 Food Production Processes	**2.3 Uses of Domestic animals**	By the end of the sub strand, the learner should be able to: a) identify types of domestic animals in the community, b) relate various domestic animals to their uses in the community, c) appreciate the importance of domestic animals for food production.	• Learners with low vision visit a school farm or a farm near the school to identify types of domestic animals and take photos. Learners with blindness are guided and given one on one support to visit a school farm or a farm near the school, listen to verbal description of different domestic animals to identify types of domestic animals. Learners with blindness are guided to touch and explore docile domestic animals that have been restrained in a crush. • Learners listen to a resource person share experiences on types of domestic animals (cattle, sheep, goats, and poultry) as they take notes. Learners with blindness are guided to touch, explore and feel models of different domestic animals to identify different features in domestic animals. • In pairs, learners with low vision are provided with picture descriptions of domestic animals to use in matching the animals to their uses (cattle, sheep, goat and poultry). Learners with blindness are provided with tactile diagrams of the domestic animals on braille charts and their uses on braille cards for matching. • In pairs, learners with low vision make a class presentation using photos or audio visuals on the importance of domestic animals. Learners with blindness make a class presentation using braille cards and tactile diagrams on the importance of domestic animals.	1. Why are domestic animals important? 2. How do domestic animals contribute to food production?
Core competencies to be developed: ● Self-efficacy: A learner makes a presentation on the importance of domestic animals in the community in class. ● Communication and collaboration: Listening skill is enhanced as a learner listens keenly to a resource person.				
Values:				

Respect: Learners listen, take turns and accommodate each other's opinion during presentations.
Pertinent and contemporary issues: Socio-economic Issues: A learner identifies and appreciates the uses of domestic animals hence the need for care and protection.
Link to other subjects: English Language: A learner uses proper vocabulary when communicating during class presentation.
Suggested Learning Resources: • Reference materials in print with appropriate font size and colour contrast • Braille reference materials • Chart with pictures of Cattle, Sheep, Goat and Poultry • Braille charts with descriptions of domestic animals • Braille cards with uses of domestic animals • Resource person • Camera • Docile domestic animals • Crush • Models of different domestic animals

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
2.0 Food Production Processes	**2.4 Balanced Meal**	By the end of the sub strand, the learner should be able to: a) explain the importance of variety of foods in a diet, b) select food from different food-groups to make a healthy meal, c) appreciate the importance of eating a variety of foods in a diet.	• In groups, learners discuss the importance of a variety of foods in a diet and make notes (body-building, energy giving and protective foods). • Learners with low vision are guided to use digital devices 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 examples of foods that are categorized as body building, energy giving and protective foods. • In pairs, learners with low vision are guided to select food from locally available foods that comprise a healthy meal from a chart. Learners with blindness are guided in selecting foods from locally available foods that comprise a healthy meal from the braille cards by putting cards with names of foods that form a group of healthy foods together. • Learners make presentations on a menu with a variety of foods in a diet, and promote health awareness through class presentations.	1. How does variety in diet impact on health? 2. Why should we eat a balanced diet?
Core competencies to be developed: ● Digital literacy: A learner uses digital devices with assistive technology to search for information on the importance of a variety of foods. ● Learning to learn: A learner applies the knowledge of grouping different familiar foods to prepare a menu with a balanced diet				
Values: Unity: Learners work together exchanging ideas and supporting one another during class presentations.				
Pertinent and contemporary issues Health promotion issues: A learner acquires knowledge on the importance of a balanced diet.				
Link to Other Learning Areas: Science and technology: A learner acquires knowledge on the importance of a variety of foods in a diet using digital devices with assistive technology.				
Suggested Learning Resources:				

- Reference materials in print with 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
- Food items - bodybuilding, energy giving and protective foods
- Food charts with bodybuilding, energy giving and protective foods
- Braille cards

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
2.0 Food Production Processes	**2.5 Cooking Food** • **Boiling food** • **Shallow frying food**	By the end of the sub strand, the learner should be able to: a) describe boiling and shallow frying as methods of cooking in food production, b) cook food using boiling and shallow frying methods for nutrition, c) embrace boiling and shallow frying in food production.	• Learners with low vision are guided to watch and listen to audio-visual clips on the process of boiling and shallow frying methods of cooking and take notes. Learners with blindness listen to audio-visual clips on the process of boiling and shallow frying methods of cooking and take notes. Provide clear verbal descriptions of the visual elements in the clips to learners with blindness. • In groups, learners with low vision are guided to observe equipment and materials used for cooking boiled and shallow fried foods. Learners with blindness are given one on one support to touch, explore and feel the nature of equipment and materials used for cooking boiled and shallow fried foods. • Learners with low vision are guided to cook and serve boiled and shallow fried foods. Learners with blindness are given clear verbal instructions and one on one support to safely cook and serve boiled and shallow fried foods. Guide learners with blindness on how to detect readiness of boiled or shallow fried foods either through a timer, browning for flour products or using a fork to test the hardness of the boiled foods like sweet potatoes and arrow roots.	How do we cook foods using boiling and frying methods?
Core competencies to be developed: ● Learning to learn: A learner applies the knowledge of cooking obtained from the audio-visual clips to boil and shallow fry foods. ● Communication and collaboration: A learner develops speaking skills and cooperates with others as they cook and serve boiled and shallow fried foods.				
Values: ● Love: Learners share the meals they have cooked using boiling and shallow frying methods.				

● Responsibility: A learner cleans and stores items they have used for cooking and serving appropriately.
Pertinent and contemporary issues: Safety and Security: A learner takes precautions while working with fire, hot pans and boiled fats.
Link to other subjects: **Mathematics:** A learner acquires knowledge on the importance of correct measurement of different food ingredients.
Suggested Learning Resources: ● Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers ● Audio visual clips ● Locally available food items suitable for boiling or shallow frying ● Cooking items and equipment ● Serving utensils ● Means of timing – clock, talking watch ● Cooking fat ● First Aid kit

Suggested Assessment Rubric

Level / Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to describe food production processes at household level: *(direct sowing of seeds, growing of fruits, uses of domestic animals, balanced diet, boiling and shallow frying).*	Describes six food production processes at household level.	Describes five food production processes at household level.	Describes 2 to 4 food production processes at household level.	Describes less than two food production processes at household level.
Ability to carry out various food production processes at household level: *(direct sowing of seeds, growing of fruits, uses of domestic animals, balanced diet, boiling and shallow frying).*	Carries out six food production processes at household level.	Carries out five food production processes at household level.	Carries out 2 to 4 food production processes at household level.	Carries out less than two food production processes at household level.
Ability to exhibit integrity in carrying out food production processes: *(utilizing resources prudently, is accountable, shows honesty, applies ethically acceptable procedures).*	Exhibits four indicators of integrity in carrying out food production processes.	Exhibits three indicators of integrity in carrying out food production processes.	Exhibits two indicators of integrity in carrying out food production processes.	Exhibits less than two indicators of integrity in carrying out food production processes.

3.0 HYGIENE PRACTICES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
3.0 Hygiene Practices	**3.1 Personal Hygiene**	By the end of the sub strand, the learner should be able to: a) identify health practices that promote personal hygiene, b) apply health practices that promote personal hygiene, c) embrace health practices to promote personal hygiene in daily life.	• Learners brainstorm and list practices that promote personal hygiene such as hand washing, use of personal protective equipment, use of clean water and cleaning foods. • Learners with low vision are guided to observe pictures showing different activities for personal hygiene. Learners with blindness are given hands-on demonstration with clear verbal instructions of the practices such as the correct way of hand washing, how to put on protective clothing such as masks and how to clean raw foods. • In pairs, learners with low vision are guided in demonstrating appropriate practices that promote personal hygiene such as hand washing, use of personal protective equipment, use of clean water and cleaning foods. Learners with blindness are given one on one support in carrying out the practices that promote personal hygiene such as hand washing, use of personal protective equipment, use of clean water and cleaning foods.	How does personal hygiene promote good health?
Core competencies to be developed: Self-efficacy: Learners express themselves and give their opinion during brainstorming sessions.				
Values: Responsibility: A learner engages in practices that promote personal hygiene.				
Pertinent and contemporary issues: Health promotion issues: A learner engages in practices that promote personal hygiene.				
Link to Other Learning Areas: Science and technology: A learner practices activities that promote personal hygiene to prevent spread of communicable diseases.				
Suggested Learning Resources:				

- Charts with pictures on practices that promote personal hygiene
- Clean water – preferably running water where applicable
- Basins/buckets
- Food substances such as raw vegetables and fruits
- Cleaning agents – liquid soap, bar soap
- Personal protective equipment such as gloves, masks, gumboots, headgear, overall
- Hand washing materials and equipment

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
3.0 Hygiene Practices	**3.2 Domestic Hygiene**	By the end of the sub strand, the learner should be able to: a) describe various methods used for cleaning home environment, b) use appropriate methods to clean home environment, c) appreciate a clean environment in promoting domestic hygiene.	• In groups, learners are guided to discuss and take notes on the methods of cleaning home environments such as mopping, dusting, sweeping and disposal of refuse. • Learners with low vision observe pictures or equipment required to carry out various cleaning practices. Learners with blindness are provided with the cleaning equipment and guided to tactually explore them to identify the cleaning practice for which they are used. • Learners are guided to improvise some of the equipment needed to clean and maintain hygiene at home such as mops, brooms, floor clothes, dust pans, cobweb remover. • Learners with low vision are guided to apply cleaning methods such as mopping, dusting, sweeping and disposal of refuse to maintain hygiene in the environment using improvised and locally available resources. Learners with blindness are guided and given one on one support on how to hold cleaning equipment, how to place the equipment on the surface being cleaned, the direction of cleaning such as sweeping from far corners and how to dispose the dirt in order to apply cleaning methods such as mopping, dusting, sweeping and disposal of refuse to maintain hygiene in the environment using improvised and locally available resources.	1. Why do we maintain a hygienic environment? 2. How do we maintain a hygienic environment?
Core competencies to be developed: • Imagination and Creativity: A learner improvises tools for cleaning and maintaining a hygienic environment. • Communication and collaboration: A learner develops listening and speaking skills as they express themselves and share ideas on methods of cleaning home environments.				
Values: Responsibility: A learner improvises resources and uses the improvised resources to clean their environment.				
Pertinent and contemporary issues: Health Promotion Issues: A learner engages in practices that promote environmental hygiene.				

Link to other subjects: • Science and technology: A learner practices activities that promote environmental hygiene. • Creative Arts: A learner improvises cleaning tools from locally available materials.
Suggested Learning Resources: • Chart with pictures of cleaning materials and equipment • Clean water • Cleaning materials and equipment such as buckets/basin, brooms, brushes, floor clothes, mops, • Refuse bins • Shovels • Dustpans • Cleaning agents

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
3.0 Hygiene Practices	**3.3 Cleaning personal protective equipment**	By the end of the sub strand, the learner should be able to: a) identify personal protective equipment in day to day life, b) clean personal protective equipment for hygiene purposes, c) appreciate clean personal protective equipment in promoting hygiene.	• Learners search for information in available resources and identify common personal protective equipment such as gloves, dust masks, gum boots, head gear, overall and canvas shoes. • Learners with low vision are guided to observe pictures and identify common personal protective equipment such as gloves, dust masks, gumboots, headgear, overall and canvas shoes. Learners with blindness are guided to touch, explore and feel provided equipment in order to identify common personal protective equipment such as gloves, dust masks, gumboots, headgear, overall and canvas shoes. • Learners are given a hands on demonstration on how to clean personal protective equipment. • Learners with low vision are guided to apply appropriate methods to clean personal protective equipment such as gumboots or canvas shoes. Learners with blindness are given one on one support on how to measure the amount of water, soap or any other cleaning detergent and how to hold or place the item being cleaned in order to apply appropriate methods to clean personal protective equipment such as gumboots or canvas shoes.	How does cleaning of personal protective equipment promote hygiene?
Core competencies to be developed: Learning to learn: A learner searches for information on how to clean personal protective equipment.				
V**alues:** Responsibility: A learner carefully cleans and keeps personal protective equipment appropriately.				

Pertinent and contemporary issues:
Disaster and risk reduction: A learner applies appropriate methods to clean personal protective equipment to prevent transmission of disease.

Link to other subjects:
Science and technology: A learner cleans personal protective equipment to prevent transmission of disease and promote hygiene.

Suggested Learning Resources:

- Digital devices with assistive technology such as screen readers, talk back, braille display and screen magnifiers
- Reference materials in print with appropriate font size and colour contrast
- Braille reference materials
- Chart with pictures with pictures of common personal protective equipment such as gloves, dust masks, gumboots, headgear, overall and canvas shoes
- Personal protective equipment such as canvas shoes, gumboots, gloves, overalls, headgear
- Clean water
- Buckets/basins
- Cleaning agents – detergents, stain removers

Suggested Assessment Rubric

Level / Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to describe practices that promote hygiene: *(personal hygiene, domestic hygiene and cleaning personal protective equipment).*	Describes three practices that promote hygiene.	Describes two practices that promote hygiene.	Describes one practice that promotes hygiene.	Describes one example that promotes hygiene.
Ability to apply health practices to promote hygiene. *(personal hygiene, domestic hygiene and cleaning personal protective equipment).*	Applies three health practices to promote hygiene.	Applies two health practices to promote hygiene.	Applies one health practice to promote hygiene.	Applies partially one health practice to promote hygiene.
Ability to exhibit responsibility while undertaking health practices that promote hygiene: *(respects other learners property, offers leadership, accepts consequences, cares for property).*	Exhibits four indicators of responsibility while undertaking health practices that promote hygiene.	Exhibits three indicators of responsibility while undertaking health practices that promote hygiene.	Exhibits two indicators of responsibility while undertaking health practices that promote hygiene.	Exhibits less than two indicators of responsibility while undertaking health practices that promote hygiene.

STRAND 4.0: PRODUCTION TECHNIQUES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry question
4.0 Production Techniques	**4.1 Making tacking stitches**	By the end of the sub strand, the learner should be able to: a) identify the use of tacking stitches in sewing, b) make an item using tacking stitches, c) appreciate the importance of tacking stitches.	• Learners with low vision are guided to observe samples of tacking stitches (even tacking; long and short tacking) and discuss the use of tacking stitches in making items. Learners with blindness are guided to touch, explore and feel stitches on a garment to identify samples of tacking stitches (even tacking; long and short tacking) and discuss the use of tacking stitches in making items. • Individually, learners with low vision are guided to make an item such as a handkerchief or scarecrow clothing using tacking stitches (even tacking or long and short stitches). Learners with blindness be given one on one support and clear verbal instructions on how to hold the needle safely in the correct position, locate the eye of the needle, thread the needle and safely stitch to make an item such as a handkerchief or scarecrow clothing using tacking stitches (even tacking or long and short stitches). • In groups, learners are guided to make presentations by displaying sample items made in class.	How do we use tacking stitches in making items?
Core competencies to be developed: • Imagination and creativity: A learner makes items such as a handkerchief or scarecrow clothing using tacking stitches. • Communication and collaboration: A learner develops listening and speaking skills as they express themselves and share ideas on the use of tacking stitches in making items.				
Values: Unity: Learners work together exchanging ideas and supporting one another on the use of tacking stitches in making items.				
Pertinent and contemporary issues: Disaster and risk reduction: A learner takes safety precautions while working with sharp tools such as sewing needles.				
Link to other subjects:				

Creative arts: A learner makes an item such as a handkerchief or scarecrow clothing using tacking stitches (even tacking or long and short stitches).
Suggested Learning Resources: ● Sewing thread with appropriate colour contrast and thickness ● Fabrics with appropriate colour contrast ● Needles with appropriate sizes and thickness ● Garments with tacking stitches ● Pair of scissors

Suggested Assessment Rubric

Level / Indicator	**Exceeds Expectations**	**Meets Expectations**	**Approaches Expectations**	**Below Expectations**
Ability to make an item using tacking stitches. *(makes appropriate choice of stitch, makes the stitch, ensures evenness of the stitch and firmness of stitch to the purpose).*	Makes an item using three tacking stitches.	Makes an item using two tacking stitches.	Makes an item using one tacking stitch.	Makes one appropriate choice of tacking stitch.
Ability to work in unity in making an item *(sharing resources, working in teams, appreciating efforts of others, respects others opinions).*	Exhibits *four* indicators of unity while making an item using tacking stitches.	Exhibits *three* indicators of unity while making an item using tacking stitches.	Exhibits *two* indicators of unity while making an item using tacking stitches.	Exhibits *less than two* indicators of unity while making an item using tacking stitches.

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:

Steps in carrying out the integrated CSL activity
1) Preparation 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 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.

APPENDIX 2: 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
1.0 CONSERVATION OF RESOURCES	**1.1 Soil Conservation**	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and peer assessment e) Project	• Reference materials in print with appropriate font size and colour contrast • Braille reference materials • Tactile diagram of a compost heap • Model of a compost heap • Chart with diagrams on compost heap • Jembe • Rake • Containers • Gloves • Tactile ruler • Gumboots • Organic waste material such as slashed vegetation, kitchen wastes • Spade • Manure fork	• Learners to initiate campaigns to create awareness on conserving soil by using organic fertilizer. • Learners participate in environmental club activities to prepare compost manure.

	1.2 Water Conservation	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and peer assessment e) Project	• Reference materials in print with appropriate font size and colour contrast • Braille reference materials • Water pipes • Digital devices with assistive technology such as screen magnifiers, refreshable braille displays, screen readers, text-to-speech systems • Containers • Cutting tools • Water • Perforating equipment such as a sharp nail, knife • Demonstration plot with crops	Learners to initiate water conservation by constructing a drip irrigation equipment and use it within the school.

	1.3 Fuel Conservation	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment	• Digital devices with assistive technology such as screen readers, talk back, braille display and screen magnifiers • Reference materials in print with appropriate font size and colour contrast • Braille reference materials • Charcoal • Firewood • Jiko • Kerosene stove • Kerosene • Gas Cylinder • Matchbox • First aid kit	• Learners to educate other learners on various ways of conserving fuel during environmental club activities. • Encourage learners to participate in debate club activities to debate on advantages and disadvantages of fuels

	1.4 Conserving wild animals	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment e) Project	• Digital devices with assistive technology such as screen reader, talkback, refreshable braille display and screen magnifiers • Reference materials in print with appropriate font size and colour contrast • Braille reference material • Internet connectivity • Timber • Old clothes • Sewing thread of appropriate thickness and colour • Needles of appropriate sizes	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.
2.0 FOOD PRODUCTION PROCESSES	**2.1 Direct sowing of tiny seeds**	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment e) Project	• Digital devices with assistive technology such as screen readers, talk back, braille display and screen magnifiers • Reference print materials in print with appropriate font size and colour contrast • Braille reference materials • Tactile ruler	Learners to initiate crop demonstration plots within the school for crops such as onions, millet, carrots or sorghum in the 4K Club activities.

			• Seeds of crops such as onions, millet, carrots, sorghum • Containers • Nails • Claw hammer • Water • Suitable soil • Mulching materials • Organic manure • Fertilisers • Garden tools and equipment such as jembes, rakes, pangas, slashers, watering cans, wheelbarrow, garden line	
	2.2 Growing fruits	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment	• Reference materials in print with appropriate font size and colour contrast • Braille reference materials • Models of different fruits such as guavas, tree	Encourage learners to take part in activities of the Young Farmers club to grow a woody fruit tree and a climbing fruit tree.

		e) Project	tomato, passion fruit, kiwi, grapes, black berries, raspberries and gooseberries • Real fruits, from woody trees (guavas, tree tomato), and climbing fruit trees (such as passion fruit, kiwi, grapes, black berries, raspberries and gooseberries) where possible • Chart with pictures fruits from woody trees (guavas, tree tomato), and climbing fruit trees (such as passion fruit, kiwi, grapes, black berries, raspberries and gooseberries). • Garden tools and equipment such as jembe, garden trowel, shovel, watering can • Seedlings of different woody and climbing fruit trees • Dry grass or leaves for mulching • Manure	

	2.3 Uses of Domestic animals	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment	• Reference material in print with appropriate font size and colour contrast • Braille reference material • Chart with pictures of Cattle, Sheep, Goat and Poultry • Braille charts with descriptions of domestic animals • Braille cards with uses of domestic animals • Resource person • Camera • Docile domestic animals • Crush • Models of different domestic animals	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.
	2.4 Balanced Meal	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment	• Reference material in print with appropriate font size and colour contrast • Braille reference material • Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers • Food items - bodybuilding, energy giving and protective foods	Learners visit a market within the school environment and categorize the foods sold in the market into bodybuilding, energy giving and protective foods

			• Food charts with bodybuilding, energy giving and protective foods • Braille cards	
	2.5 Cooking Food ● **Boiling food** ● **Shallow frying food**	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment	● Digital devices with assistive technology such as screen readers, talk back, refreshable braille display and screen magnifiers ● Audio visual clips ● Locally available food items suitable for boiling or shallow frying ● Cooking items and equipment ● Serving utensils ● Means of timing – clock, talking watch ● Cooking fat ● First Aid kit	Learners visit a restaurant or a fast food joint to identify boiled and shallow fried foods and also take part in preparing foods through boiling and frying.

3. 0 **HYGIENE PRACTICES**	**3.1 Personal Hygiene**	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment	• Charts with pictures on practices that promote personal hygiene • Clean water – preferably running water where applicable • Basins/buckets • Food substances such as raw vegetables and fruits • Cleaning agents – liquid soap, bar soap • Personal protective equipment such as gloves, masks, gumboots, headgear, overall • Hand washing materials and equipment	Learners keep an activity schedule of personal hygiene practices they carry out for two weeks.
	3.2 Domestic Hygiene	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment e) Project	• Chart with pictures of cleaning materials and equipment • Clean water • Cleaning materials and equipment such as buckets/basin, brooms, brushes, floor clothes, mops, • Refuse bins • Shovels • Dustpans • Cleaning agents	Learners visit a market within their locality and carry out cleaning using appropriate methods.

	3.3 Cleaning personal protective equipment	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment e) Project	• Digital devices with assistive technology such as screen readers, talk back, braille display and screen magnifiers • Reference materials in print with appropriate font size and colour contrast • Braille reference materials • Chart with pictures with pictures of common personal protective equipment such as gloves, dust masks, gumboots, headgear, overall and canvas shoes • Personal protective equipment such as canvas shoes, gumboots, gloves, overalls, headgear • Clean water • Buckets/basins • Cleaning agents – detergents, stain removers	Learners visit a bakery or a garage and assist in cleaning of various protective clothing such as overalls, aprons, gloves.

4.0 PRODUCTION TECHNIQUES	**4.1 Making tacking stitches**	a) Written assignments in print and in Braille b) Oral questioning c) Observation d) Self and Peer assessment e) Project	• Sewing thread with appropriate colours and thickness • Fabrics with appropriate colour contrast • Needles with appropriate sizes and thickness • Garments with tacking stitches • Pair of scissors	Learners engage in the activities of the Home Economics Club to make various articles such as handkerchiefs, table mats/cloths using tacking stitches and sell to their peers.