



**REPUBLIC OF KENYA
MINISTRY OF EDUCATION**

JUNIOR SCHOOL CURRICULUM DESIGN

AGRICULTURE AND NUTRITION

GRADE 8

FOR LEARNERS WITH PHYSICAL IMPAIRMENT



KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

A Skilled and Ethical Society

First Published in 2023

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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 rationalisation and review of the basic education curriculum.

The reviewed Grade eight curriculum designs for learners with physical impairment build on competencies attained by learners at Grade 7. Emphasis at this grade is the development of skills for exploration and making informed decision on pathways based on careers.

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

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

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

PREFACE

The Ministry of Education (MoE) nationally implemented Competency Based Curriculum (CBC) in 2019. Grade seven is the first grade of Junior school while Grade 9 is the final grade of the level in the reformed education structure.

The reviewed Grade eight curriculum furthers implementation of the CBC from Grade seven. 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 eight curriculum designs for learners with physical impairment are intended to enhance the learners' development in the CBC core competencies, namely: Communication and Collaboration, Critical Thinking and Problem Solving, Creativity and Imagination, Citizenship, Digital Literacy, learning to Learn and Self-efficacy.

The curriculum designs provide suggestions for interactive and differentiated learning experiences linked to the various sub strands and the other aspects of the CBC. They also offer several suggested learning resources and a variety of assessment techniques. It is expected that the designs will guide teachers to effectively facilitate learners to attain the expected learning outcomes for Grade eight and prepare them for smooth transition to Grade nine. 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 conceptualised the Competency Based Curriculum (CBC) as captured in the Basic Education Curriculum Framework (BECF) 2017, that responds to the demands of the 21st Century and the aspirations captured in the Constitution of Kenya 2010, the Kenya Vision 2030, East African Community Protocol, International Bureau of Education Guidelines and the United Nations Sustainable Development Goals (SDGs).

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

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

I assure all teachers, parents and other stakeholders that this curriculum design will effectively guide the implementation of the CBC at Grade eight and preparation of learners with physical impairment for transition to Grade nine.

A handwritten signature in blue ink, appearing to read 'Charles O. Ong'ondo', written in a cursive style.

PROF. CHARLES O. ONG'ONDO, PhD, MBS
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LESSON ALLOCATION AT JUNIOR SCHOOL

	LEARNING AREA	NUMBER OF LESSONS PER WEEK (40 MINUTES PER LESSON)
1.	English	5
2.	Kiswahili/Kenya Sign Language	4
3.	Mathematics	5
4.	Religious Education	4
5.	Social Studies	4
6.	Integrated Science	5
7.	Pre-Technical Studies	4
8.	Agriculture and Nutrition	4
9.	Creative Arts and Sports	5
10	Pastoral/ Religious Instruction Programme	1
	Total	40+1

NATIONAL GOALS OF EDUCATION

Education in Kenya should:

1. Foster nationalism and patriotism and social revolution following in the wake of rapid modernization. Education should assist our youth to adapt to this change.

a) 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 needs an adequate and relevant domestic workforce.

b) Technological and Industrial Needs

Education in Kenya should provide learners with the necessary skills and attitudes for industrial development. Kenya recognizes 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.

2. 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.

3. 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 society.

4. 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.

5. 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.

LEARNING OUTCOMES FOR JUNIOR SCHOOL

By end of Junior School, the learner should be able to:

- a) Apply literacy, numeracy and logical thinking skills for appropriate self-expression.
- b) Communicate effectively, verbally and non-verbally, in diverse contexts.
- c) Demonstrate social skills, and spiritual and moral values for peaceful co-existence.
- d) Explore, manipulate, manage and conserve the environment effectively for learning and sustainable development.
- e) Practise relevant hygiene, sanitation and nutrition skills to promote health.
- f) Demonstrate ethical behaviour and exhibit good citizenship as a civic responsibility.
- g) Appreciate the country's rich and diverse cultural heritage for harmonious co-existence.
- h) Manage pertinent and contemporary issues in society effectively.
- i) Apply digital literacy skills for communication and learning.

ESSENCE STATEMENT

Agriculture and Nutrition is a new learning area that enable learners to apply distinctive ways of logical valuing, thinking and working to understand natural phenomena in the biological, physical and technological world. The learning area is expected to create a scientific culture that inculcates scientific literacy to enable learners to make informed choices in their personal lives and approach life challenges in a systematic and logical manner. The inclusion of Agriculture Nutrition is therefore a deliberate effort to enhance the level of scientific literacy of all learners and equip them with the relevant basic Agriculture and Nutritional knowledge, skills, values and attitudes needed for their own survival and/or career development. Concepts in Agriculture and Nutrition are presented as units within which there are specific strands that build on the competencies acquired in Science and Technology at Upper Primary level. The emphasis of science education at lower secondary levels is to enhance learners' scientific thinking through learning activities that involve the basic science process skills.

Agriculture Nutrition provides the learner with the basic requisite skills, knowledge, values and attitudes necessary for specialization in STEM pathway at senior school level. The rationale for inclusion of Agriculture and Nutrition is anchored on the Kenya Vision 2030, Sessional Papers No. 14 of 2012, and No. 1 of 2019, which all underscore the importance of science, technology and innovation in education and training.

Agriculture and Nutrition is taught through inquiry-based learning approaches with emphasis on the 5Es: engagement, exploration, explanation, elaboration and evaluation

GENERAL LEARNING OUTCOMES

By end of Junior School, the learner should be able to:

- 1) Participate actively in agricultural and household activities in conservation of resources.
- 2) Use scarce resources through innovative 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

STRAND	SUB STRAND
1.0 Conservation of Resources	1.1 Soil conservation measures
	1.2 Water harvesting and storage
2.0 Food Production Processes	2.1 Kitchen and backyard gardening
	2.2 Poultry Rearing in a fold
	2.3 Crop pest and disease control
	2.4 Preparation of Animal Products
	2.5 Preserving milk and meat
	2.6 Cooking: Preparing a balanced meal
3.0 Hygiene Practices	3.1 Cleaning the Kitchen
4.0 Production Techniques	4.1 Sewing skills: Constructing household items
	4.2 Constructing innovative animal waterer
	4.3 ICT support services

1.0 CONSERVATION OF RESOURCES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
1.0 Conservation of Resources	1.1 Soil conservation measures (10 lessons)	By the end of the sub strand the learner should be able to; <ol style="list-style-type: none"> a) describe methods of soil conservation in agricultural environment, b) carry out soil conservation activities in the environment, c) demonstrate caring attitude towards soil in the environment. 	Learners are guided to: <ul style="list-style-type: none"> ● Search and share information on methods of soil conservation (<i>strip cropping, grassed waterways, stone lines, trash lines, soil bunds</i>) using digital devices and print media. Control light and colour intensity for learners who are sensitive to light when using the digital devices. Learners with speech difficulties could use alternative modes of communication to share. ● In purposive groups/pairs, explore the school environment and carry out activities on soil conservation in the school such as strip cropping, grassed waterways, stone lines, trash lines, and 	How can we conserve soil in the environment?

			<p>soil bunds. Learners with mobility difficulties could be given physical support by peers, learner support assistant or teacher as they explore and carry out the task.</p> <ul style="list-style-type: none">● Construct a farm model using materials such as cartons, cardboards, soil and papier-mache for displaying soil conservation measures on a farm layout. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given physical support by peers. Safety precautions should be observed when carrying out this practical activity.	
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<p>Core competencies: Creativity and imagination: Observation skills as learners demonstrate methods of soil conservation using a farm model.</p>
<p>Values: Unity: Collaboration with others while working in teams to construct a farm layout model.</p>
<p>Pertinent and contemporary issues: Environmental awareness as learners conserve soil from erosion.</p>
<p>Link to other subjects: Learners relate construction of a farm model with conservation structures using artistic skills learnt in Creative Arts and Sports.</p>

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<p>1.0 Conservation of Resources</p>	<p>1.2 Water harvesting and storage</p> <p>(9 lessons)</p>	<p>By the end of the sub strand the learner should be able to;</p> <p>a) discuss ways of storing harvested water for domestic use,</p> <p>b) take part in harvesting and storing water in the school for domestic use,</p> <p>c) show responsibility in harvesting and storing water for domestic use.</p>	<p>Learners are guided to:</p> <ul style="list-style-type: none"> ● Search and share information in purposive groups/pairs, on how harvested water can be stored for domestic purposes, using methods such as <i>shallow water pans, water ponds and suitable water containers</i>. Learners with speech difficulties could use alternative modes of communication. ● Initiate measures of their choice towards water 	<p>How can we harvest and store water for domestic purposes?</p>

			<p>harvesting and storage in the school. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given physical support by peers. Safety precautions should be observed when carrying out this practical activity.</p> <ul style="list-style-type: none"> ● Make class presentations on possible initiatives and maintenance practices that can be made to harvest and store rainwater and surface runoff in the school environment. Learners with speech difficulties could use alternative modes of communication to present. 	
<p>Core competencies: Critical thinking and problem solving: Open-mindedness and creativity skills as learners analyse and initiate water harvesting and storage measures.</p>				

<p>Values: Responsibility: Learners undertake assigned roles while participating in water harvesting and storage initiatives in the school.</p>
<p>Pertinent and contemporary issues: Environmental conservation as learners harvest and store rainwater in the school environment.</p>
<p>Link to other subjects: Learners relate water harvesting and storage to conservation of the community environment learnt in Social Studies.</p>

Suggested Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations
Ability to describe conservation measures on environmental resources: <i>(soil erosion control by cultural methods; and water conservation through harvesting and storage).</i>	The learner can describe conservation measures with clearly referenced details.	The learner can describe conservation measures with clear details.	The learner can describe conservation measures with some few unclear details.
Ability to carry out conservation measures on environmental resources: <i>(soil erosion control by cultural methods; and water conservation through harvesting and storage).</i>	The learner can identify site that require conservation, applicable measure, assemble requirements, carry out a sustainable conservation activity.	The learner can identify site that require conservation, applicable measure, assemble requirements, carry out the conservation activity.	The learner can identify site that require conservation, applicable measure, assemble requirements for the activity.

<p>Ability to exhibit responsibility in conserving soil and water resources: <i>(dependable in areas of strength, proactively solves problems in tasks, participates actively in assigned tasks, observes safety precautions).</i></p>	<p>The learner exhibits <i>four</i> indicators of responsibility in the conservation environmental resources.</p>	<p>The learner exhibits <i>three</i> indicators of responsibility in the conservation environmental resources.</p>	<p>The learner exhibits <i>two</i> indicators of responsibility in the conservation environmental resources.</p>
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2.0 FOOD PRODUCTION PROCESSES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
2.0 Food Production Processes	2.1 Kitchen and backyard gardening (9 lessons)	By the end of the sub strand the learner should be able to; <ol style="list-style-type: none"> a) explain the role of kitchen and backyard garden in food production, b) establish a kitchen and backyard garden for food production, c) adopt the use of kitchen and backyard garden for food production. 	Learners are guided to: <ul style="list-style-type: none"> ● Use digital and print resources to search for the roles of kitchen and backyard garden in food production such as <i>production of fresh healthy foods, saving money, and readily accessible food</i>. Control light and colour intensity for learners who are sensitive to light when using the digital devices. ● Prepare a kitchen or backyard garden and grow various crops such as <i>vegetables, herbs and spices</i>. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given physical support by peers. 	How does a kitchen garden contribute to food production?

			<ul style="list-style-type: none"> Take care of the crops established in the kitchen and backyard garden to adopt their use in food production 	
<p>Core competencies: Critical thinking and problem solving; Evaluation and decision skills as the learners establish a kitchen or a backyard garden for food production.</p>				
<p>Values: Unity: Collaboration with others while learners establish a kitchen or backyard garden.</p>				
<p>Pertinent and contemporary issues: Poverty eradication as learners establish their garden to grow own foods.</p>				
<p>Link to other subjects: Learners relate growing of own food in kitchen and backyard garden to financial literacy skills learnt in Pre-technical Studies.</p>				

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
Food Production Processes	<p>2.2 Poultry Rearing in a fold</p> <p>(11 lessons)</p>	<p>By the end of the sub strand the learner should be able to;</p> <p>a) describe a fold in poultry rearing,</p> <p>b) construct a fold for rearing poultry,</p> <p>c) rear poultry in a fold,</p> <p>d) show responsibility in rearing of poultry.</p>	<p>Learners are guided to:</p> <ul style="list-style-type: none"> Search and observe video clips or images on poultry folds and share experiences on how poultry folds look like. Control light intensity for learners who are sensitive to light and colour. Learners with speech difficulties could use alternative modes of communication as they share experiences, 	<p>How can we rear poultry in a fold for food production?</p>

			<ul style="list-style-type: none">● In purposive group/pairs, use locally available materials such as reused and recycled wires, plastic and wood materials to construct a poultry fold. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given physical support by the peers or teacher to perform the task.● Conduct a project: In purposive pairs, learners to rear poultry of their choice in a fold unit to practise moving of the folds, feeding, watering, sanitation, protection from predators and harsh weather. Safety precautions should be observed when carrying out the task.	
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<p>Core competencies: Creativity and imagination: Networking skills as learners undertake group task and gain new perspective on how to construct a poultry fold.</p>
<p>Values: Responsibility: Carrying out assigned tasks in the project for construction of a poultry fold.</p>
<p>Pertinent and contemporary issues: Financial literacy as learners recycle and reuse materials to save on costs in construction of a poultry fold.</p>
<p>Link to other subjects: Learners relate dimensions of a poultry fold to measurements in Mathematics.</p>

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<p>2.0 Food Production Processes</p>	<p>2.3 Crop Pest and Disease Control</p> <p>(10 lessons)</p>	<p>By the end of the sub strand the learner should be able to;</p> <p>a) identify vegetable crops attacked by pests and diseases,</p> <p>b) control pests and diseases on vegetable crops,</p> <p>c) acknowledge the importance of controlling pests and diseases in vegetable production.</p>	<p>Learners are guided to:</p> <ul style="list-style-type: none"> Take a field excursion to observe and identify vegetable crops that are attacked by pests (<i>punctured leaves, cut-off seedlings, curling leaves</i>) and the common sites where the pests are found. Learners with mobility difficulties could be given physical support to perform the task. 	<ol style="list-style-type: none"> How can we identify vegetable crops attacked by pests and diseases? How can we control pests and diseases in crops?

			<ul style="list-style-type: none"> • Take a field excursion to a vegetable garden, observe and identify vegetable crops affected by disease (<i>wilting plants, black and brown spots and rotting of plant parts</i>). Learners with mobility difficulties could be given physical support by the peers or by the teacher to perform the task. Safety precautions should be observed when carrying out this practical activity. • Control pests on vegetables using methods such as handpicking, removing affected crop parts, uprooting heavily affected crops and applying natural pesticides such as ash. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given 	
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			<p>physical support by peers or a teacher.</p> <ul style="list-style-type: none"> • Control diseases on vegetables using methods such as removing affected parts and uprooting heavily affected crops. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given physical support by peers or teacher. • In purposive groups discuss and make presentations on the importance of controlling crop pests and diseases in vegetable production. Learners with speech difficulties could use alternative modes of communication to present. 	
<p>Core competencies: Learning to learn: Learners carry out research during field excursion to identify vegetable crop pests and diseases.</p>				

Values:

Respect: Accommodating diverse opinions while learners discuss and make presentations on the importance of controlling pests and diseases

Pertinent and contemporary issues:

Disaster risk reduction as learners control pests and diseases to prevent outbreaks.

Link to other subjects:

Learners relate control of pest and diseases in crops to farming for economic activities learnt in Social Studies.

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
2.0 Food Production Processes	2.4 Preparation of Animal Products <ul style="list-style-type: none"> • <i>Processing fish</i> • <i>Dressing poultry</i> <p>(9 lessons)</p>	<p>By the end of the sub strand the learner should be able to;</p> <p>a) explain the importance of processing fish and dressing poultry carcass.</p> <p>b) process fresh fish for various purposes,</p> <p>c) dress poultry carcass for various purposes.</p> <p>d) uphold ethical and safety practices in preparation of animal products.</p>	<p>Learners are guided to:</p> <ul style="list-style-type: none"> • Discuss and share experiences on the importance of processing fish and dressing poultry. Learners with speech difficulties could use alternative modes of communication to share. • Process fresh fish through <i>scaling, gutting, cleaning, salting, and frying</i>. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given 	<ol style="list-style-type: none"> 1. How can we process fresh fish? 2. How can we dress poultry carcass?

			<p>physical support by the peers or teacher to perform the task.</p> <ul style="list-style-type: none"> ● In purposive pairs, dress poultry carcass (<i>beheading, defeathering, and removal of offal, cleaning</i>) for various uses. ● Make presentations to create awareness on ethical issues (humane killing and handling while slaughtering) and safety practices in preparation of animal products. Learners with speech difficulties should be given enough time to express themselves or use alternative modes of communication 	
Core competencies:				
Learning to learn: Collaborative working as learners undertake processing of fish and poultry.				
Values:				
Integrity: Application of ethical procedures in the processing of fish and poultry.				
Pertinent and contemporary issues:				
Animal welfare: Learners practice humane killing of poultry during slaughtering.				
Link to other subjects:				
Learners relate the parts removed in fish and poultry to knowledge of parts of fish and birds learnt in integrated science.				

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
2.0 Food Production Processes	2.5 Preserving animal products <ul style="list-style-type: none"> • <i>Milk</i> • <i>Meat</i> (9 lessons)	By the end of the sub strand, the learner should be able to; <ol style="list-style-type: none"> a) explain the importance of preserving milk and meat at household level, b) preserve meat to prolong shelf life at household level, c) preserve milk to prolong shelf life at household level. d) Embrace the use of various methods to preserve animal products at household level. 	Learners are guided to: <ul style="list-style-type: none"> • Search for information from digital and print resources, discuss and share experiences on the importance of preserving milk and meat at household level. Control light intensity for learners who are sensitive to light. Learners with speech difficulties could use alternative modes of communication to share. • Preserve milk through methods such as; <i>boiling, fermenting and home cooling techniques</i>. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given physical support to perform the task. 	How can we preserve milk and meat at household level?

			<ul style="list-style-type: none"> ● Preserve meat through methods such as <i>salting, boiling, drying and smoking</i>. Safety precautions should be observed when carrying out this practical activity. ● Make presentations to promote applicable methods of preserving animal products to embrace their use household level 	
Core competencies: Digital literacy: Interacting with digital technology as learners search for information on milk and meat preservation.				
Values: Integrity: Honesty in the process of preserving meat and milk using ethically acceptable procedures.				
Pertinent and contemporary issues: Food hygiene as learners ensure use of clean tools and equipment and appropriate environment in the preservation of meat and milk.				
Link to other subjects: Learners relate preservation of meat and milk to basic principles of preservation learnt in Integrated Science.				

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
2.0 Food Production Processes	2.6 Cooking: Preparing a balanced meal	By the end of the sub strand the learner should be able to ; a) explain factors to consider in preparing a balanced meal,	Learners are guided to: <ul style="list-style-type: none"> ● Discuss and share experiences on factors to consider in preparing a balanced meal such as age, health status, 	How can we prepare a balanced meal for healthy living?

	(11 lessons)	<p>b) prepare a balanced meal for healthy living,</p> <p>c) use various styles to present the meal,</p> <p>d) adopt the use of a balanced meal in day to day life.</p>	<p>occasion and gender. Learners with speech difficulties could use alternative modes of communication to share experiences.</p> <ul style="list-style-type: none"> ● In purposive groups/pairs plan, and cook a balanced meal that include proteins, carbohydrate, vitamins and minerals. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive Safety precautions should be observed when carrying out this practical activity. ● Serve the balanced meal using serving styles such as <i>family or blue plate</i> to present the meal. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive 	
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			technology or be given physical support by peers. <ul style="list-style-type: none"> ● Make various menus on a balanced diet and present in class. Learners with manipulation difficulties could type/write or use assistive technology to make menus. Control light intensity and colour for those who are sensitive to light when using digital devices. 	
Core competencies: Creativity and imagination: networking skills as learners share new ideas that inspire creative thinking in preparing and presenting meals.				
Values: Integrity: prudent use of resources in the preparation of balanced meal.				
Pertinent and contemporary issues: Health promotion as learners adopt the use of balanced meal in day to day life.				
Link to other subjects: Learners relate consumption of balanced meal to prevention of lifestyle diseases learnt in Integrated Science.				

Suggested Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to explain the aspects of food production processes:	The learner can explain <i>eight</i> food production processes.	The learner can explain <i>six to seven</i> food production processes.	The learner can explain <i>three to five</i> food production processes.	The learner can explain <i>less than three</i> food production processes.

<i>(kitchen and backyard gardening, rearing poultry in a fold, pest and disease control in vegetables, preparation of fish and poultry, preserving milk and meat, cooking a balanced meal).</i>				
Ability to carry out various food production processes: <i>(kitchen and backyard gardening, rearing poultry in a fold, pest and disease control in vegetables, preparation of fish and poultry, preserving milk and meat, cooking a balanced meal).</i>	The learner can carry out <i>eight</i> food production processes.	The learner can carry out <i>six to seven</i> food production processes.	The learner can carry out <i>three to five</i> food production processes.	The learner can carry out <i>less than three</i> food production processes.
Ability to exhibit integrity in carrying out the various food production processes:	The learner exhibits <i>four</i> indicators of integrity in carrying out food production processes.	The learner exhibits <i>three</i> indicators of integrity in carrying out food production processes.	The learner exhibits <i>two</i> indicators of integrity in carrying out food production processes.	The learner exhibits <i>less than two</i> indicators of integrity in carrying out food production processes.

<i>(adherence to ethical procedures, use of resources prudently, is honest and accountable in allocated tasks).</i>				
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3.0 HYGIENE PRACTICES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
3.0 Hygiene Practices	3.1 Cleaning the Kitchen (9 lessons)	By the end of the sub strand, the learner should be able to; <ol style="list-style-type: none"> a) explain the routine cleaning practices of a kitchen, b) carry out cleaning of a kitchen to maintain hygiene, c) appreciate the importance of a clean kitchen for healthy living. 	Learners are guided to: <ul style="list-style-type: none"> ● Share experiences on routine cleaning of the kitchen (<i>daily, weekly, special cleaning</i>). Learners with speech difficulties could use alternative modes of communication. ● Clean the kitchen to maintain hygiene applying (<i>daily, weekly and special cleaning</i>). Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given physical support to perform the task. ● Make discussions and presentations on the importance of a clean kitchen for healthy living. Learners with speech difficulties to be given enough time to give their presentations. 	How can daily, weekly and special cleaning enhance hygiene in the kitchen?

<p>Core competencies: Learning to learn: Organizing own learning as learners apply appropriate procedures in cleaning the kitchen.</p>
<p>Values: Responsibility: Engaging in assigned roles when cleaning the kitchen to maintain hygiene.</p>
<p>Pertinent and contemporary issues: Health promotion as learners maintain hygiene by cleaning the kitchen.</p>
<p>Link to other subjects: Learners relate cleaning the kitchen to prevent contamination of food to concepts of disease prevention learnt in Integrated Science.</p>

Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to explain routine cleaning practices of a kitchen.	The learner explains routine cleaning practices of a kitchen with elaborate details.	The learner explains routine cleaning practices of a kitchen.	The learner explains routine cleaning practices of a kitchen with some details that require clarity.	The learner explains routine cleaning practices of a kitchen with some details that require clarity and correction for accuracy.
Ability to carry out routine cleaning of kitchen to maintain hygiene: <i>(daily, weekly and special)</i> .	The learner can carry out <i>three</i> routine cleaning procedures of the kitchen to maintain hygiene.	The learner can carry out <i>two</i> routine cleaning procedures of the kitchen to maintain hygiene.	The learner can carry out <i>one</i> routine cleaning procedures of the kitchen to maintain hygiene.	The learner can partially carry out <i>a</i> routine cleaning procedures of the kitchen to maintain hygiene.

<p>Ability to shows responsibility while cleaning the kitchen:</p> <p><i>(engages in assigned roles, cares for kitchen surfaces, observes safety, offers leadership in cleaning).</i></p>	<p>The learner shows <i>four</i> aspects of responsibility while cleaning the kitchen.</p>	<p>The learner shows <i>three</i> aspects of responsibility while cleaning the kitchen.</p>	<p>The learner two aspects of responsibility while cleaning the kitchen.</p>	<p>The learner shows <i>less than two</i> aspects of responsibility while cleaning the kitchen.</p>
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4.0 PRODUCTION TECHNIQUES

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
4.0 Production Techniques	4.1 Sewing skills: Constructing household items (14 lessons)	By the end of the sub strand, the learner should be able to; <ol style="list-style-type: none"> identify the types of seams used in making household items make samples of seams on a piece of cloth, construct a household item using seams. appreciate the use of seam in making household items 	Learners are guided to: <ul style="list-style-type: none"> Search for information on different types of seams used in making household items (open and plain seams).Control light intensity and colour for learners who are sensitive to light. Make samples of <i>open and plain seams</i> on a piece of cloth using hand sewing. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given physical support to perform the task. Safety precautions should be observed when carrying out this practical activity. 	How can a household item be made using seams?

			<ul style="list-style-type: none"> ● Make a simple household article such as a <i>lap bag, work bag, pillow case, and cushion cover</i> using plain or open seams. a learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given physical support to perform the task. Safety precautions should be observed when carrying out this practical activity. ● Display samples of household items they make to appreciate the use of seams in making household items. 	
Core competencies: Creativity and imagination: Experimenting skills as learners construct household items using seams.				
Values: Responsibility: Undertaking assigned roles as the learners construct household items using seams.				
Pertinent and contemporary issues: Safety for self and others as learners use sharp tools in construction of household items using seams.				
Link to other subjects: Learners relate construction of household items using seams to artistic skills (pattern work) learnt in Creative Arts and Sports.				

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
4.0 Production Techniques	4.2 Constructing innovative animal waterer (10 lessons)	By the end of the sub strand the learner should be able to; a) explain challenges with animal waterers used in the community, b) design and construct an innovative waterer for water conservation, c) appreciate the use of innovative waterers in animal rearing.	Learners are guided to: <ul style="list-style-type: none"> ● Visit animal rearing households, identify challenges of animal waterers and make presentations to explain the challenges of the existing waterers. Learners with mobility difficulties could be given physical support by peers, learner support assistant or teacher as they move around. ● Search for information from digital and print media on innovative waterers, design and construct a waterer for small domestic animals to solve the identified problem using locally available materials. Learners with manipulation difficulties could use alternative 	How can we make an innovative waterer for small domestic animals?

			<p>functional parts of the body or appropriate assistive technology or be given physical support to perform the task. Control light intensity and colour for those who are sensitive to light. Safety precautions should be observed when carrying out this practical activity.</p> <ul style="list-style-type: none">● Use the constructed innovative waterer to test functionality, make adjustments and provide water to target animals either at home, in the school or selected household to appreciate use of innovative waterers. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology or be given physical support to perform the task.	
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<p>Core competencies: Critical thinking and problem solving: Reflection skills as learners develop innovative waterers for domestic animals.</p>
<p>Values: Social justice: Fairness as learners carry out allocated tasks in construction of innovative animal waterer.</p>
<p>Pertinent and contemporary issues: Environmental awareness as learners use and reuse available materials in construction of animal waterer.</p>
<p>Link to other subjects: Learners relate designing and construction of innovative waterer to drawing and designing skills learnt in Pre-technical studies.</p>

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key inquiry questions
<p>4.0 Production Techniques</p>	<p>4.3 ICT support services (9 lessons)</p>	<p>By the end of the sub strand the learner should be able to;</p> <p>a) describe support services that can be accessed through use of ICT,</p> <p>b) access support services using ICT,</p> <p>c) show responsibility in use of ICT in accessing support services.</p>	<p>Learners are guided to:</p> <ul style="list-style-type: none"> • Discuss and share experiences of how ICT can be used to access supplies and information for appropriate decision making. Learners with speech difficulties could use alternative modes of communication or be given more time to share their experiences. • Access online platforms for ICT support services such as <i>weather forecast, veterinary services, supply services, extension services, market information and</i> 	<p>How can we access support services using ICT?</p>

			<p><i>banking services, catering services, cleaning services.</i></p> <p>Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology as they access online platforms</p> <ul style="list-style-type: none"> ● In purposive groups discuss and adhere to responsible use of ICT platforms by observing ethical and security consideration. <p>Learners with speech difficulties could be lip read by peers, use alternative modes of communication or be given more time to express themselves.</p>	
Core competencies: Digital literacy: Digital citizenship skills as learners access online platform for ICT support services.				
Values: Integrity: Ethical use of online support services.				
Pertinent and contemporary issues: Cyber security as learners observe online security guideline to prevent cyber-attacks.				
Link to other subjects: Learners relate the access of ICT support services to digital technology skills learnt in Pre-technical Studies.				

Suggested Assessment Rubric

Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations
Ability to describe various production techniques at household level. <i>(construction of household items using seams, constructing animal waterer, using ICT support services).</i>	The learner can describe <i>three</i> production techniques.	The learner can describe <i>two</i> production techniques.	The learner can describe <i>one</i> production technique.
Ability to carry out various production techniques at household level. <i>(construction of household items using seams, constructing animal waterer, using ICT support services).</i>	The learner can carry out <i>three</i> production techniques.	The learner can carry out <i>two</i> production techniques.	The learner can carry out <i>one</i> production technique.
Ability to exhibits integrity in the use of	The learner exhibits <i>four</i> indicators of	The learner exhibits <i>three</i> indicators of integrity in the use of production techniques.	The learner exhibits <i>two</i> indicators of integrity in the use of production techniques.

production techniques: <i>(prudent use of resources, adherence to ethical procedures, is accountable in the allocated task and self-disciplined).</i>	integrity in the use of production techniques.		
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APPENDIX I: GUIDELINES FOR INTEGRATING COMMUNITY SERVICE LEARNING PROJECT

Introduction

In Grade 8, learners will undertake an integrated Community Service Learning (CSL) project of choice from a single or combined subject. The CSL project will enable the learner to apply knowledge and skills from other subjects to address a problem in the community. The implementation of the integrated CSL project will take a Whole School Approach, where all members of the school community including teachers, school administration, parents/guardians/ local community and support staff. It will be a collaborative effort where the teacher of Social Studies coordinates and works with other subject teachers to design and implement the integrated CSL projects. The teachers will select a theme drawn from different Learning Areas and the broader categories of Pertinent and Contemporary Issues (PCIs) for the CSL project. It should also provide an opportunity for development of core competencies and nurturing of values. Learners will undertake **one common** integrated class CSL project following a 6-step milestone approach as follows:

Milestone	Description
Milestone 1	<p>Problem Identification</p> <p>Learners study their community to understand the challenges faced and their effects on community members. Some of the challenges in the community can be:</p> <ul style="list-style-type: none">• Environmental degradation• Lifestyle diseases, Communicable and non-communicable diseases• Poverty• Violence and conflicts in the community• Food security issues

Milestone 2	Designing a solution Learners create an intervention to address the challenge identified.
Milestone 3	Planning for the Project Learners share roles, create a list of activities to be undertaken, mobilise resources needed to create their intervention and set timelines for execution
Milestone 4	Implementation The learners execute the project and keep evidence of work done.
Milestone 5	Showcasing /Exhibition and Report Writing Exhibitions involve showcasing learners’ project items to the community and reflecting on the feedback Learners write a report detailing their project activities and learnings from feedback
Milestone 6	Reflection Learners review all project work to learn from the challenges faced. They link project work with academic concepts, noting how the concepts enabled them to do their project as well as how the project helped to deepen learning of the academic concepts.

Note: The milestones will be staggered across the 3 terms of the academic calendar.

Assessment of CSL integrated Project

Assessment for the integrated CSL project will be conducted formatively. The assessment will consider both the process and end product. This entails assessing each of the milestone stages of the integrated CSL class project. It will focus on 3 components namely: skills from various learning areas applied in carrying out the project, core competencies developed and values nurtured.

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

Strand	Suggested Assessment Methods	Suggested Resources	Suggested Non-Formal Activities		
1.0 Conservation of Resources	<ul style="list-style-type: none"> • Observation of learning activities. • Written tests and assignments • Projects. • Oral assessment • Activity journals 	<ul style="list-style-type: none"> • Digital resources • Print materials (charts, reference books) • Cooking tools and equipment • Cleaning equipment and materials • Selected gardening tools • Selected foodstuffs • General environment for space, samples of soils and plants 	Learners to conduct school community awareness on conservation of various resources using existing formal interaction forums.		

<p>2.0 Food Production Processes</p>	<ul style="list-style-type: none"> • Written tests and assignments • Graded observation • Projects • Activity journal 	<ul style="list-style-type: none"> • Digital devices and print reference materials. • General environment for space, soil and samples of plants. • Selected Garden tools such as <i>jembes</i>, fork <i>jembes</i>, spade, <i>panga</i>, slasher, tape measure. • Variety of planting materials • First aid kit • Cooking and cleaning equipment and materials • Samples of animal products such as eggs and honey, milk and meat. • Sample crop produce such as vegetables. • Some small domestic animals such as rabbits, poultry or Guinea pigs. 	<ul style="list-style-type: none"> • Learners to prepare and manage a sample kitchen or backyard garden in the school for display. • Learners to use existing school forums to display skills and products of the various learning experiences to extend knowledge and create awareness to the school community. 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> •
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3.0 Hygiene Practices	<ul style="list-style-type: none"> • Written test • Oral assessment on safety when handling animal. • Observation of learning • Oral tests • Project • Activity journals 	<ul style="list-style-type: none"> • General cool environment 	Learners to use existing school forums to sensitize the school community on hygiene practices.		
4.0 Production Techniques	<ul style="list-style-type: none"> • Written test • Oral tests • Project • Activity journals • Observation 	<ul style="list-style-type: none"> • Sewing tools such as needles, crochet, scissors and tape measure. • Sewing materials such as sample fabrics and yarns • Cleaning equipment and materials • Sample clothing and household articles • Detergents, stain removal agents and disinfectants • Digital devices and print reference materials. • Gardening tools such as tape measure and hammer. 	Learners to use existing school forums to create awareness and enhance adoption of various production techniques.		

		<ul style="list-style-type: none"> • General school environment • Worked samples (crocheted and knitted materials) • Sample planting materials • Selected foodstuffs. 			
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NOTE: Assessment methods may be modified to accommodate a learner’s diverse needs so that he/she can participate and achieve the learning outcomes. The table below shows how modes of assessment may be adapted for learners with physical impairment:

ADAPTATION OF ASSESSMENT METHODS

S/NO	ASSESSMENT METHODS/MODES	SUGGESTED ADAPTATIONS
1.	Written assessment	<ul style="list-style-type: none"> • Typing, stamping or signing • Description of the task as a scribe or learner support assistant writes Audio visual recording of the learner as he/she makes oral responses • Provision of Adapted digital devices and writing/drawing resources • Adjustment of time according to individual needs • Providing illustrations to be interpreted for activities that involve drawing • Use of worksheets
2.	Oral or Aural assessment	<ul style="list-style-type: none"> • Written responses

		<ul style="list-style-type: none"> • Use of AAC (<i>Augmentative and Alternative modes of Communication</i>) e.g. <i>talking books, gestures, body movement, sign language, alphabet cards, facial expressions</i> • Adjustment of time according to individual needs
3.	Portfolio	<ul style="list-style-type: none"> • Use of E-Portfolio • Provision of physical support • Use of assistive technology • Provision of Adapted digital devices and writing/drawing resources • Adjustment of time according to individual needs • Description of how to carry out a practical activity while being audio/video recorded
4.	Practical assessment	<ul style="list-style-type: none"> • Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs • Rest intervals according to individual needs • Environmental adaptation
5.	Project	<ul style="list-style-type: none"> • Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs • Environmental adaptation

Note: Safety of all learners should be observed during assessment

