KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

*A Skilled and Ethical Society*

# JUNIOR SCHOOL CURRICULUM DESIGN

# AGRICULTURE AND NUTRITION

## GRADE 8

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## NATIONAL GOALS OF EDUCATION

Education in 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-fulfilment**
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 instil 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 JUNIOR SCHOOL**

| S/No | Learning Area | Number of Lessons |
|---|---|---|
| 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 |
| **Total** | | **40** |

* 1 lesson is set aside for the Pastoral/Religious Instruction Programme.

## LEARNING OUTCOMES FOR JUNIOR SCHOOL

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

1. Apply literacy, numeracy and logical thinking skills for appropriate self-expression.
2. Communicate effectively, verbally and non-verbally, in diverse contexts.
3. Demonstrate social skills, spiritual and moral values for peaceful co-existence.
4. Explore, manipulate, manage and conserve the environment effectively for learning and sustainable development.
5. Practise relevant hygiene, sanitation and nutrition skills to promote health.
6. Demonstrate ethical behaviour and exhibit good citizenship as a civic responsibility.
7. Appreciate the country's rich and diverse cultural heritage for harmonious co-existence.
8. Manage pertinent and contemporary issues in society effectively.
9. Apply digital literacy skills for communication and learning.

## ESSENCE STATEMENT

Agriculture and nutrition is a learning area that anchors on the United Nation Sustainable development goals and the socio-economic pillar of Kenya Vision 2030 to promote health, hygiene, food and nutrition security through education. It is an integrated learning area comprising of agriculture and home science concepts introduced in the upper primary curriculum. The learners will deepen the acquired knowledge, skills, attitudes and values in conservation of resources, food production, hygiene and innovative production techniques. The curriculum will enrich learner's competencies in conservation of resources, crop and animal production, foods and nutrition, personal and environmental hygiene, basic clothing construction and laundry work. Agriculture and nutrition curriculum will form grounds for specialization in respective career pathways in senior school and beyond.

## 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**

| Strands | Sub strands |
|---|---|
| **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: Fish and poultry carcass |
| | 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 |

**STRAND 1.0 CONSERVATION OF RESOURCES**

| Strand | Sub Strand | Specific Learning Outcomes | Suggested Learning Experiences | Suggested Key Inquiry Question(s) |
|---|---|---|---|---|
| **1.0 Conservation of Resources** | **1.1 Soil Conservation Measures**<br><br>(10 lessons) | By the end of the sub strand the learner should be able to:<br>a) describe methods of soil conservation in agricultural environment,<br>b) carry out soil conservation activities in the environment<br>c) demonstrate caring attitude towards soil in the environment. | Learners are guided to:<br>• search and share information on methods of soil *conservation (strip cropping, grassed water ways, stone lines, trash lines, soil bunds)* using digital devices and print media.<br>• explore the school environment and carry out activities on soil conservation in the school such as strip cropping, grassed water ways, stone lines, trash lines, and soil bunds.<br>• **conduct project:** in groups, learners to construct farm model using materials such as cartons, cardboards, soil and papier-mache to demonstrate soil conservation measures on a farm layout.<br>• creativity skills as learners make a farm model illustrating soil conservation measures, value of unity as learners work in teams to conserve soil, environmental awareness as learners explore school | How can we conserve soil in the environment? |

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| | | | environment to observe soil erosion. | |
| **Core competencies:**<br>Creativity and imagination: observation skills as learners demonstrate methods of soil conservation using a farm model. | | | | |
| **Values:**<br>Unity: collaboration with others while working in teams to construct a farm layout model. | | | | |
| **Pertinent and contemporary issues:**<br>Environmental awareness as learners conserve soil from erosion. | | | | |
| **Link to other subjects:**<br>Learners relate construction of a farm model with conservation structures using artistic skills learnt in creative arts. | | | | |

| Strand | Sub Strand | Specific Learning Outcomes | Suggested Learning Experiences | Suggested Key Inquiry Question(s) |
|---|---|---|---|---|
| **1.0 Conservation of Resources** | **1.2 Water Harvesting and Storage**<br><br>(9 lessons) | By the end of the sub strand the learner should be able to:<br>a) discuss ways of storing harvested water for domestic use,<br>b) take part in harvesting and storing water in the school for domestic use,<br>c) show responsibility in harvesting and storing water for domestic use. | Learners are guided to:<br>• search and share information in groups, on how harvested water can be stored for domestic purposes, using methods such as *shallow water pans, water ponds and suitable water containers*.<br>• initiate measures of their choice towards water harvesting and storage in the school.<br>• make class presentations on possible initiatives and maintenance practices that can be made to harvest and store rain water and surface runoff in the school environment.<br>• problem solving skills in initiating water harvesting and storage measures, value of responsibility in initiating and maintaining water harvesting, and environmental conservation as they adopt water harvesting and storage. | How can we harvest and store water for domestic purposes? |
| **Core competencies:**<br>Critical thinking and problem solving: open-mindedness and creativity skills as learners analyse and initiate water harvesting and storage measures. | | | | |

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

**Assessment rubric**

| Level / Indicator | Exceeds Expectations | Meets Expectations | Approaches Expectations | Below Expectations |
|---|---|---|---|---|
| Ability to discuss conservation measures of soil and water. | Discusses measures of conservation of resources (soil erosion control by cultural methods; and water conservation through harvesting and storage) with clearly referenced details. | Discusses measures of conservation of resources (soil erosion control by cultural methods; and water conservation through harvesting and storage). | Discusses measures of conservation of resources (soil erosion control by cultural methods; and water conservation through harvesting and storage) with some details omitted. | Discusses measures of conservation of resources (soil erosion control by cultural methods; and water conservation through harvesting and storage) with some details that require clarification or correction. |
| Ability to conserve soil and water. | Conserves soil and water through applicable measures (soil erosion control by cultural methods; and water conservation through harvesting and storage) with | Conserves soil and water through applicable measures (soil erosion control by cultural methods; and water | Conserves either soil or water through applicable measures (soil erosion control by cultural methods; and water | Conserves either soil or water through applicable measures (soil erosion control by cultural methods; and water conservation through |

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| | practices that are both conventional and innovative. | conservation through harvesting and storage). | conservation through harvesting and storage). | harvesting and storage) with measures that require improvement. |
| Ability to exhibit responsibility in conserving soil and water. | Exhibits more than three aspects of responsibility (dependable in areas of strength, proactively solves problems in tasks, participates actively in assigned tasks) in the conservation of soil and water. | Exhibits three aspects of responsibility (dependable in areas of strength, proactively solves problems in tasks, participates actively in assigned tasks) in the conservation of soil and water. | Exhibits two aspects of responsibility (dependable in areas of strength, proactively solves problems in tasks, participates actively in assigned tasks) in the conservation of soil and water. | Exhibits less than two aspects of responsibility (dependable in areas of strength, proactively solves problems in tasks, participates actively in assigned tasks) in the conservation of soil and water. |

**STRAND 2.0 FOOD PRODUCTION PROCESSES**

| Strand | Sub Strand | Specific Learning Outcomes | Suggested Learning Experiences | Suggested Key Inquiry Question(s) |
|---|---|---|---|---|
| **2.0 Food Production Processes** | **2.1 Kitchen and Backyard Gardening**<br><br>(9 lessons) | By the end of the sub strand the learner should be able to:<br>a) explain the role of kitchen and backyard garden in food production<br>b) establish a kitchen and backyard garden for food production<br>c) adopt the use of kitchen and backyard garden for food production. | Learners are guided to:<br>• use digital and print resource to search for the roles of kitchen and backyard garden in food production such as *production of fresh healthy foods, saving money, readily accessible*.<br>• prepare a kitchen or backyard garden and grow various crops such as *vegetables, herbs and spices.*<br>• critical thinking skills as they establish kitchen or backyard garden to produce fresh foods, unity as they collaborate to establish the garden and food security as they grow fresh vegetables for food. | How does kitchen garden contribute to food production? |
| **Core competencies:** Critical thinking and problem solving: evaluation and decision skills as the learners establish a kitchen or a backyard garden for food production. | | | | |
| **Values:** Unity: collaboration with others while learners establish a kitchen or backyard garden. | | | | |
| **Pertinent and contemporary issues:** Poverty eradication as learners establish their garden to grow own foods. | | | | |
| **Link to other subjects:** Learners relate growing of own food in kitchen and backyard garden to financial literacy skills learnt in Pre-technical studies. | | | | |

| Strand | Sub Strand | Specific Learning Outcomes | Suggested Learning Experiences | Suggested Key Inquiry Question(s) |
|---|---|---|---|---|
| **2.0 Food Production Processes** | **2.2 Poultry Rearing in a fold**<br><br>(11 lessons) | By the end of the sub strand the learner should be able to:<br>a) describe a fold in poultry rearing,<br>b) construct a fold for rearing poultry,<br>c) rear poultry in a fold,<br>d) show responsibility in rearing of poultry. | Learner is guided to:<br>• search and observe video clips or images on poultry folds and share experiences on how poultry folds look like.<br>• use locally available materials such as reused and recycled wires, plastic and wood materials to construct a poultry fold.<br>• **conduct a project:** rear poultry of their choice in a fold unit to practice moving of the folds, feeding, watering, sanitation, protection from predators and harsh weather.<br>• creativity skills as learners apply ideas in constructing a poultry fold, responsibility as they carry out assigned tasks and financial literacy as learner use recycled and reused materials to construct a poultry fold. | How can we rear poultry in a fold for food production? |
| **Core competencies:** Creativity and imagination: networking skills as learners undertake group task and gain new perspective on how to construct a poultry fold. | | | | |
| **Values:** Responsibility: carrying out assigned tasks in the project for construction of a poultry fold. | | | | |
| **Pertinent and contemporary issues:** Financial literacy as learners recycle and reuse materials to save on costs in construction of a poultry fold. | | | | |
| **Link to other subjects:** Learners relate dimensions of a poultry fold to measurements in mathematics. | | | | |

| Strand | Sub Strand | Specific Learning Outcomes | Suggested Learning Experiences | Suggested Key Inquiry Question(s) |
|---|---|---|---|---|
| **2.0 Food Production Processes** | **2.3 Crop Pest and Disease Control**<br><br>(10 lessons) | By the end of the sub strand the learner should be able to:<br>a) identify vegetable crops attacked by pests and diseases,<br>b) control pests and diseases on vegetable crops,<br>c) acknowledge importance of controlling pests and diseases in vegetable production. | Learners are guided to:<br>• take a field excursion to observe and identify vegetable crops that are attacked by pests *(punctured leaves, cut-off seedlings, curling leaves)* and the common sites where the pests are found.<br>• take a field excursion to a vegetable garden, observe and identify vegetable crops affected by disease *(wilting plants, black and brown spots and rotting of plant parts).*<br>• control pests on vegetables using methods such as handpicking, removing affected crop parts, uprooting heavily affected crops and applying natural pesticides such as ash.<br>• control diseases on vegetables using methods such as removing affected parts and uprooting heavily affected crops.<br>• discuss and make presentations on importance of controlling crop pests and diseases in vegetable production.<br>• learning to learn by applying collaborative skills in controlling pests and diseases, value of respect | 1. How can we identify vegetable crops attacked by pests and diseases?<br>2. How can we control pests and diseases affecting crops? |

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| | | | as learners listen and positively critique presentations, and disaster risk reduction while learners control pests and disease to prevent outbreaks. | |
| **Core competencies:**<br>Learning to learn: learners carry out research during field excursion to identify vegetable crop pests and diseases. | | | | |
| **Values:**<br>Respect: accommodating diverse opinions while learners discuss and make presentations on the importance of controlling pests and diseases | | | | |
| **Pertinent and contemporary issues:**<br>Disaster risk reduction as learners control pests and diseases to prevent outbreaks. | | | | |
| **Link to other subjects:**<br>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 Question(s) |
|---|---|---|---|---|
| **2.0 Food Production Processes** | **2.4 Preparation of Animal Products**<br><br>(9 lessons) | By the end of the sub strand the learner should be able to:<br>a) explain the importance of processing fish and dressing poultry carcass.<br>b) process fresh fish for various purposes,<br>c) dress poultry carcass for various purposes. | Learners are guided to:<br>• discuss to share experiences on the importance of processing fish and dressing poultry.<br>• process fresh fish through *scaling, gutting, cleaning, salting, and frying.*<br>• discuss how to dress poultry carcass *(beheading, defeathering, removal of offal, cleaning)* for various uses.<br>• learning to learn as learners collaboratively exercises self-discipline to dress poultry and process fish, integrity as learners apply ethical methods of dressing poultry and ensures respect for animal welfare by humane killing of poultry. | 1. How can we process fresh fish?<br>2. How can we dress poultry carcass? |
| **Core competencies:**<br>Learning to learn: collaborative working as learners undertake processing of fish and poultry. | | | | |
| **Values:**<br>Integrity: application of ethical procedures in the processing of fish and poultry. | | | | |
| **Pertinent and contemporary issues:**<br>Animal welfare: learners practice humane killing of poultry during slaughtering. | | | | |
| **Link to other subjects:**<br>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 Question(s) |
|---|---|---|---|---|
| **2.0 Food Production Processes** | **2.5 Preserving Milk and Meat**<br><br>(9 lessons) | By the end of the sub strand the learner should be able to:<br>a) explain the importance of preserving milk and meat at household level,<br>b) preserve meat to prolong shelf life at household level,<br>c) preserve milk to prolong shelf life at household level. | Learner is guided to:<br>• search for information from digital and print resources, discuss and share experiences on the importance of preserving milk and meat at household level.<br>• preserve milk through methods such as *boiling, fermenting and home cooling.*<br>• preserve meat through methods such as *salting, boiling, drying and smoking.*<br>• digital literacy as learners search for information, integrity as learners display honesty in preserving meat and milk in ethically acceptable procedures and hygiene as learners ensure use of clean equipment. | How can we preserve milk and meat at 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 Question(s) |
|---|---|---|---|---|
| **2.0 Food Production Processes** | **2.6 Cooking: Preparing a Balanced Meal**<br><br>(11 lessons) | By the end of the sub strand the learner should be able to:<br>a) explain factors to consider in preparing a balanced meal<br>b) prepare a balanced meal for healthy living<br>c) present the meal using various styles<br>d) adopt the use of a balanced meal in day to day life. | Learner is guided to:<br>• discuss and share experiences on factors to consider in preparing a balanced meal such as age, health status, occasion and gender.<br>• plan, and cook a balanced meal with protein, carbohydrate and vegetables.<br>• serve the balanced meal using a serving styles such as *family or blue plate* to present the meal.<br>• make various menu on balanced diet and present in class.<br>• creativity skills while presenting meals, integrity in the use of resources to prepare the meal and safety in the use of fuel and sharp equipment. | How can we prepare a balanced meal for healthy living? |
| **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. | | | | |

**Assessment rubric**

| Level / Indicator | Exceeds Expectations | Meets Expectations | Approaches Expectations | Below Expectations |
|---|---|---|---|---|
| Ability to explain aspects of food production processes. | Explains six aspects of food production processes (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) with elaborate details. | Explains six aspects of food production processes (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). | Explains three to five aspects of food production processes (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). | Explains less than three aspects of food production processes (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). |
| Ability to carry out various food production processes. | Carries out six food production processes (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) with creativity and | Carries out six food production processes (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 | Carries out three to five food production processes (kitchen and backyard gardening, rearing poultry in a fold, pest and disease control in vegetables, preparation of fish and poultry, | Carries out less than three food production processes (kitchen and backyard gardening, rearing poultry in a fold, pest and disease control in vegetables, preparation of fish and poultry, |

| | | | | |
|---|---|---|---|---|
| | innovative approaches. | meal). | preserving milk and meat, cooking a balanced meal). | preserving milk and meat, cooking a balanced meal). |
| Ability to exhibit integrity in carrying out the various food production processes. | Exhibits more than three indicators of integrity (adherence to ethical procedures, prudent use of resources and accountable in allocated tasks) in carrying out food production processes. | Exhibits three indicators of integrity (adherence to ethical procedures, prudent use of resources and accountable in allocated tasks) in carrying out food production processes. | Exhibits two indicators of integrity (adherence to ethical procedures, prudent use of resources and accountable in allocated tasks) in carrying out food production processes. | Exhibits less than two indicators of integrity (adherence to ethical procedures, prudent use of resources and accountable in allocated tasks) in carrying out food production processes. |

**STRAND 3.0 HYGIENE PRACTICES**

| Strand | Sub Strand | Specific Learning Outcomes | Suggested Learning Experiences | Suggested Key Inquiry Question(s) |
|---|---|---|---|---|
| **3.0 Hygiene Practices** | **3.1 Cleaning the Kitchen**<br><br>(9 lessons) | By the end of the sub strand the learner should be able to:<br>a) explain the routine cleaning practices of a kitchen<br>b) carry out cleaning of a kitchen to maintain hygiene<br>c) appreciate a clean kitchen for healthy living. | • learners share experiences on routine cleaning of the kitchen *(daily, weekly, special cleaning).*<br>• clean the kitchen to maintain hygiene applying *(daily, weekly and special cleaning).*<br>• learning to learn while applying appropriate procedures to clean the kitchen, responsibility while undertaking routine roles and promoting health and hygiene at household level. | How can daily, weekly and special cleaning enhance hygiene in the kitchen? |
| **Core competencies:**<br>Learning to learn: organizing own learning as learners apply appropriate procedures in cleaning the kitchen. | | | | |
| **Values:**<br>Responsibility: engaging in assigned roles when cleaning the kitchen to maintain hygiene. | | | | |
| **Pertinent and contemporary issues:**<br>Health promotion as learners maintain hygiene by cleaning the kitchen. | | | | |
| **Link to other subjects:**<br>Learners relate cleaning the kitchen to prevent contamination of food to concepts of disease prevention learnt in Integrated science. | | | | |

**Assessment rubric**

| Level / Indicator | Exceeds Expectations | Meets Expectations | Approaches Expectations | Below Expectations |
|---|---|---|---|---|
| Ability to explain routine cleaning practices of a kitchen. | Explains routine cleaning practices of a kitchen with elaborate details. | Explains routine cleaning practices of a kitchen. | Explains routine cleaning practices of a kitchen with some details that require clarity. | 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. | Carries out three routine cleaning procedures (daily, weekly and special) of the kitchen to maintain hygiene with specific attention to details. | Carries out three routine cleaning procedures (daily, weekly and special) of the kitchen to maintain hygiene. | Carries out two routine cleaning procedures (daily, weekly and special) of the kitchen to maintain hygiene. | Carries out less than two routine cleaning procedures (daily, weekly and special) of the kitchen to maintain hygiene. |
| Ability to demonstrate responsibility while cleaning the kitchen. | Demonstrates more than three aspects of responsibility (engages in assigned roles, cares for kitchen surfaces, observes safety) while cleaning the kitchen. | Demonstrates three aspects of responsibility (engages in assigned roles, cares for kitchen surfaces, observes safety) while cleaning the kitchen. | Demonstrates two aspects of responsibility (engages in assigned roles, cares for kitchen surfaces, observes safety) while cleaning the kitchen. | Demonstrates less than two aspects of responsibility (engages in assigned roles, cares for kitchen surfaces, observes safety) while cleaning the kitchen. |

**STRAND 4.0 PRODUCTION TECHNIQUES**

| Strand | Sub Strand | Specific Learning Outcomes | Suggested Learning Experiences | Suggested Key Inquiry Question(s) |
|---|---|---|---|---|
| **4.0 Production Techniques** | **4.1 Sewing Skills: Constructing Household Items**<br><br>(14 lessons) | By the end of the sub strand the learner should be able to:<br>a) identify the types of seams used making clothes<br>b) make samples of seams on a piece of cloth<br>c) construct a household item using seams | Learners are guided to:<br>• search for information on different types of seams used in making household items (open and plain seams).<br>• make samples of *open and plain seams* on a piece of cloth using hand sewing.<br>• make a simple household article such as *lap bag, work bag, pillow case, cushion cover* using plain or open seams.<br>• creative skills as learner use ideas to construct a household item, responsibility as learners undertake task to completion and safety as learners take precaution against accident cause by sharp sewing tools. | How can a household item be made using seams? |
| **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. | | | | |

| Strand | Sub Strand | Specific Learning Outcomes | Suggested Learning Experiences | Suggested Key Inquiry Question(s) |
|---|---|---|---|---|
| **4.0 Production Techniques** | **4.2 Constructing Innovative Animal Waterer**<br><br>(10 lessons) | By the end of the sub strand the learner should be able to:<br>a) explain challenges with animal waterers used in the community,<br>b) design and construct an innovative waterer for water conservation,<br>c) appreciate use of innovative waterers in animal rearing. | Learners are guided to:<br>• visit animal rearing households, identify challenges of animal waterers and make presentations to explain the challenges of the existing waterers.<br>• search for information from digital and print media on innovative waterers, design and construct a waterer for small domestic animal to solve the identified problem using locally available materials.<br>• use the constructed innovative waterer to test functionality, make adjustments and provide water to target animal either at home, in the school or selected household.<br>• problem solving skills while constructing a waterer to solve animal waterer challenges, social justice as learners apply fairness in allocation of tasks and personal safety while taking care of themselves while using tools and equipment. | How can we make an innovative waterer for small domestic animals? |
| **Core competencies:**<br>Critical thinking and problem solving: reflection skills as learners develop innovative waterers for domestic animals. | | | | |

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| **Values:**<br>Social justice: fairness as learners carry out allocated tasks in construction of innovative animal waterer. |
| **Pertinent and contemporary issues:**<br>Environmental awareness as learners use and reuse available materials in construction of animal waterer. |
| **Link to other subjects:**<br>Learners relate designing and construction of innovative waterer to drawing and designing skills learnt in Pre-technical studies. |

| Strand | Sub Strand | Specific Learning Outcomes | Suggested Learning Experiences | Suggested Key Inquiry Question(s) |
|---|---|---|---|---|
| **4.0 Production Techniques** | **4.3 ICT Support Services**<br><br>(9 lessons) | By the end of the sub strand the learner should be able to:<br>a) describe support services that can be accessed through use of ICT,<br>b) access support services using ICT,<br>c) show responsibility in use of ICT in accessing support services. | Learner is guided to:<br>• discuss and share experiences on how ICT can be used to access supplies and information for appropriate decision making.<br>• access online platforms for ICT support services such as *weather forecast, veterinary services, supply services, extension services, market information and banking services, catering services, cleaning services.*<br>• discuss and adhere to responsible use of ICT platforms by observing ethical and security considerations.<br>• digital literacy as learners apply digital citizenship skill in safe use of ICT, integrity in the ethical use of online support services and information, cyber security in the use of ICT support services. | How can we access support services using ICT? |
| **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. | | | | |

**Assessment Rubric**

| Level / Indicator | Exceeds Expectations | Meets Expectations | Approaches Expectations | Below Expectations |
|---|---|---|---|---|
| Ability to describe various production techniques at household level. | Describes three production techniques (construction of household items using seams, constructing animal waterer, using ICT support services). | Describes three production techniques (construction of household items using seams, constructing animal waterer, using ICT support services). | Describes two production techniques (construction of household items using seams, constructing animal waterer, using ICT support services). | Describes less than two production techniques (construction of household items using seams, constructing animal waterer, using ICT support services). |
| Ability to use production techniques at household level. | Uses three production techniques (construction of household items using seams, constructing animal waterer, using ICT support services) through creative and innovative approaches. | Uses three production techniques (construction of household items using seams, constructing animal waterer, using ICT support services) at household level. | Uses two production techniques (construction of household items using seams, constructing animal waterer, using ICT support services) at household level. | Uses less than two production techniques (construction of household items using seams, constructing animal waterer, using ICT support services) at household level. |
| Ability to demonstrate integrity in the use of production techniques. | Demonstrates more than three indicators of integrity (prudent use of resources, adherence to ethical procedures and self-discipline) in the use of production techniques. | Demonstrates three indicators of integrity (prudent use of resources, adherence to ethical procedures and self-discipline) in the use of production techniques. | Demonstrates two indicators of integrity (prudent use of resources, adherence to ethical procedures and self-discipline) in the use of production techniques. | Demonstrates less than two indicators of integrity (prudent use of resources, adherence to ethical procedures and self-discipline) in the use of production techniques. |

## APPENDIX 1: 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 | **Problem Identification**<br>Learners study their community to understand the challenges faced and their effects on community members. Some of the challenges in the community can be:<br>• Environmental degradation<br>• Lifestyle diseases, Communicable and non-communicable diseases<br>• Poverty<br>• Violence and conflicts in the community<br>• Food security issues |

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|---|---|
| Milestone 2 | **Designing a solution**<br>Learners create an intervention to address the challenge identified. |
| Milestone 3 | **Planning for the Project**<br>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**<br>The learners execute the project and keep evidence of work done. |
| Milestone 5 | Showcasing /Exhibition and Report Writing<br>Exhibitions involve showcasing learners' project items to the community and reflecting on the feedback<br>Learners write a report detailing their project activities and learnings from feedback |
| Milestone 6 | Reflection<br>Learners review all project work to learn from the challenges faced.<br>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 2: 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** | • Observation of learning activities.<br>• Written tests and assignments<br>• Projects.<br>• Oral assessment<br>• Activity journals | Digital resources<br>Print materials (charts, reference books)<br>Cooking tools and equipment<br>Cleaning equipment and materials<br>Selected gardening tools<br>Selected foodstuffs<br>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. |
| **2.0 Food Production Processes** | • Written tests and assignments<br>• Graded observation<br>• Projects<br>• Activity journal | Digital devices and print reference materials.<br>General environment for space, soil and samples of plants.<br>Selected Garden tools such as *jembes*, fork *jembes*, spade, *panga*, slasher, tape measure.<br>Variety of planting materials<br>First aid kit<br>Cooking and cleaning equipment and materials<br>Samples of animal products such as eggs and honey, milk and meat.<br>Sample crop produce such as | Learners to prepare and manage a sample kitchen or backyard garden in the school for display.<br><br>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. |

| | | | |
|---|---|---|---|
| | | vegetables.<br>Some small domestic animals such as rabbits, poultry or Guinea pigs. | |
| **3.0 Hygiene Practices** | • Written test<br>• Oral assessment on safety when handling animal.<br>• Observation of learning<br>• Oral tests<br>• Project<br>• Activity journals | Cleaning equipment and materials<br>Sample clothing and household articles<br>Detergents, stain removal agents and disinfectants<br>Digital devices and print reference materials<br>General school environment | Learners to use existing school forums to sensitize the school community on hygiene practices. |
| **4.0 Production Techniques** | • Written test<br>• Oral tests<br>• Project<br>• Activity journals<br>Observation of learning<br>• Written and oral tests | Sewing tools such as needles, crochet, scissors and tape measure.<br>Sewing materials such as sample fabrics and yarns.<br>Gardening tools such as tape measure and hammer.<br>General school environment<br>Worked samples (crocheted and knitted materials)<br>Sample planting materials<br>Selected foodstuffs. | Learners to use existing school forums to create awareness and enhance adoption of various production techniques. |