

Curriculum design

Environmental activities Grade three

Strand	Sub-strand	Specific learning outcomes	Suggested learning experiences	Key inquiry question(s)
1.0 Environment and its resources	1.1 Weather (5 Lessons) 1.1.1 Exploring unfavourable weather conditions	By the end of the sub-strand, the learner should be able to: a. Describe unfavourable weather conditions b. Observe the effects of unfavourable weather conditions for safety c. Develop curiosity in identifying effects of weather conditions in the environment.	<ul style="list-style-type: none">✓ Using relevant stimulus materials, learners to discuss the meaning of unfavourable weather conditions (floods and drought)✓ Using multimedia resources, learners to play relevant educative games on effects of unfavourable weather conditions.✓ In groups, learners to share their experiences on effects of unfavourable weather conditions.✓ Learners to listen to stories on unfavourable weather conditions and its effects from elders in the community.✓ Learners gather more information on unfavourable from internet sources, libraries .Then write a paragraph on each unfavourable weather condition	1. How could weather conditions be unfavourable? 2. What happens when the weather conditions become unfavourable?
	1.1.2 Keeping safe from unfavourable weather	By the end of the sub-strand, the learner should be able to:	<ul style="list-style-type: none">✓ using age appropriate stimulus, learners could be guided to identify ways of keeping safe from unfavourable weather conditions (floods, <input type="checkbox"/> Learners to gather information from parents or	How could we keep safe from unfavourable weather conditions

	conditions	<ol style="list-style-type: none">a. Identify ways of keeping safe from unfavourable weather conditionsb. Keep safe from unfavourable weather conditionsc. Demonstrate knowledge of keeping safe from	drought) ✓ In groups, learners share experiences on how to keep safe from unfavourable weather conditions ✓ Learners to simulate how to keep safe from unfavourable weather conditions ✓ guardians on how to keep safe during unfavourable weather conditions and report back.	
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Core Competences to be developed: Communication and collaboration, critical thinking and problem solving, digital literacy.	
Link to PCIs: ESD: Environmental Education; effects of unfavourable weather; Disaster Risk Reduction, concern on effects of unfavourable weather Citizenship: Social Cohesion: Learners share experiences	Links to values: Responsibility; respect-learners share experiences in groups
Links to other learning activity areas: Languages: listening to cultural stories on weather.	Suggested Community Service Learning activities: Learners to interact and find out from their parents or guardians on how to keep safe during unfavourable weather conditions.
Suggested non formal activity to support learning through application: Learners to develop keep safe messages for the	Suggested assessment: Written work, oral questioning and simulated computer exercises.

Suggested Assessment Rubric

Sub-strand	Exceeds expectation	Meets expectation	Approaches expectation	Below expectation
Exploring unfavourable weather conditions	Consistently and correctly describes unfavourable weather and identifies its effects	Demonstrate ability to observe and identify effects of unfavourable weather and keep safe from unfavourable weather	Demonstrates some knowledge to observe and identify effects of unfavourable weather and how to keep safe.	Unable to demonstrate ability to observe and identify effects of unfavourable weather and keep safe
Keeping safe from unfavourable weather conditions	Consistently and correctly identifies ways of keeping safe and demonstrates knowledge of keeping safe from unfavourable weather conditions.	Correctly identifies ways of keeping safe and demonstrates knowledge of keeping safe from unfavourable weather conditions.	Sometimes identifies ways of keeping safe and demonstrates knowledge of keeping safe from unfavourable weather conditions.	Rarely identifies ways of keeping safe or demonstrates knowledge of keeping safe from unfavourable weather conditions.

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Key inquiry question
1.0 Environment and its resources	1.2 Water (5 lessons) 1.2.1 Making water safe for use	By the end of the sub-strand, the learner should be able to: a. Identify ways of making water clean and safe for use in the home b. Make water clean and safe using different methods c. Construct a simple water filter for cleaning water at home d. Appreciate clean and safe water for use to reduce health risks.	<ul style="list-style-type: none"> ✓ Learners to listen and respond to case story on the need to use clean and safe water. ✓ Learners to share experiences on how to make water clean and safe for use in the home ✓ Learners to observe a sample of dirty water and discuss how the water could be made clean and safe for use (decantation, filtering, boiling) ✓ Learners to make a simple water filter using locally available materials ✓ Learners to decant filter and boil water to make it clean and safe for use. 	How could we make water clean and safe for use in the home?
Core-competence to be developed: Critical thinking and problem solving, communication and collaboration, imagination and creativity.				
Links to PCI's: ESD-Environmental Education: Environment and water, Effective communication: learners name methods of making water clean and safe for use		Links to values: Responsibility and teamwork as they make a simple water filter		
Links to other learning activity areas (s): Hygiene and Nutrition, Movement and Creative art; Literacy		Suggested Community Service Learning activities: sharing with parents or guardians on different ways of making water clean and safe for use.		
Suggested non-formal activity to support learning through application: Giving a message at the school assembly on clean		Suggested assessment: Oral questions, observe as they work in groups,		

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and safe water for use.

written questions, project work on making water filter.

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Suggested Assessment Rubric

Exceeds Expectation	Meets Expectation	Approaches Expectation	Below Expectation
<ul style="list-style-type: none"> Consistently and correctly identifies ways of making water clean, creatively constructs a simple water filter, and makes water clean and safe for use at home. 	<ul style="list-style-type: none"> Correctly identifies ways of making water clean, constructs a simple water filter, and makes water clean and safe for use at home. 	<ul style="list-style-type: none"> Sometimes identifies ways of making water clean, constructs a simple water filter, and makes water clean and safe for use at home. 	<ul style="list-style-type: none"> Rarely identifies ways of making water clean, constructs a simple water filter, or makes water clean and safe for use at home.

Strand	Sub –strand	Specific learning outcome	Suggested learning experiences	Key inquiry question(s)
1.0 Environment and its resources	1.3 Soil (10 Lessons) 1.3.1 Exploring	By the end of the sub-strand, the learner should be able to: a. Differentiate soils by texture from provided soil samples	<ul style="list-style-type: none"> Learners to explore the environment and collect different soil samples (sand, loam and clay) In groups, learners to feel between their 	How could we differentiate types of soils?

	soil characteristics	<p>b. Differentiate soils by size of soil particles from provided soil samples</p> <p>c. Name the three types of soils based on their characteristics</p> <p>d. Develop interest in characteristics of soils as an environmental resource.</p>	<p>fingers the different soil samples and record findings (course, medium, fine)</p> <ul style="list-style-type: none">✓ Learners to share their experiences on how different samples of soils feel between their fingers✓ Learners to observe the particle sizes of the three soil samples (large, medium and small sized particles)✓ Learners to mount (using glue) the different soil samples on a chart. Learners to display the chart in the learning corner.✓ Learners find out from parents or guardians on the types of soils found in their locality and	
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Core-competence to be development: Communication and collaboration, critical thinking and problem solving, learning to learn	
Links to PCI's: Effective communication: learners name types of soil; ESD: Environmental Education: Environment and soil.	Links to values: Unity –in groups learners discuss characteristics of soil.
Links to other learning activity areas (s): Movement and Creative Arts activities – displaying types of soils.	Suggested community Service Learning activities: Find out and report back from parents or guardians on the types of soils found in their
Suggested non-formal activity to support learning through application: Recite a poem on soil.	Suggested assessment: Oral questions, observation as they work in groups, written questions, assessing the displayed project.

Suggested Assessment Rubric

Exceeds expectation	Meets expectation	Approaches expectation	Below expectation
Consistently and correctly differentiates soil textures, size of particles and deduces name of soil based on their characteristics.	Correctly differentiates soil textures, size of particles and deduces name of soil based on their characteristics.	Sometimes differentiates soil textures, size of particles and deduces name of soil based on their characteristics.	Rarely differentiates soil textures, size of particles or deduces name of soil based on their characteristics.

Strand	Sub-strand	Specific learning outcomes	Suggested learning experiences	Key inquiry question(s)
1.0 Environment and its	1.4 Plants	By the end of the sub-strand, the learner should be able to:	<ul style="list-style-type: none"> ✓ Learners to carry out a nature walk to observe and identify the plants 	How could we categorize plant

resources	(10 Lessons) 1.4.1 Categorizing plants.	a. Identify different types of plants b. Categorize plants in the immediate environment according to specified features c. Appreciate the rich diversity in plants.	(edible/non-edible, thorny/non-thorny, poisonous/non-poisonous) ✓ Learners to take photographs of different plants during the nature walk ✓ Using relevant stimulus materials, learners to be guided to categorize plants according to specified features	
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			poisonous/non-poisonous) ✓ Learners to draw one type of plant and share their work with others.	
1.4.2 Safety when handling plants	By the end of the sub-strand, the learner should be able to: a. Describe safe ways of handling different plants b. Observe safety when handling different plants in the immediate environment c. Appreciate the need to handle plants responsibly to reduce health risks.		✓ Learners to watch video clips or pictures or posters on safety when handling plants ✓ Learners listen to a resource person on safety when handling plants ✓ Learners to share information on how to handle different plants ✓ Learners to simulate safety when handling plants.	How could we handle plants safely?
Core Competences to be developed: Critical thinking and problem solving; creativity and imagination.				
Link to PCIs: Disaster risk reduction; safety when handling plants. ESD –Environmental Education			Link to values: Responsibility, care for plants, respect the rich diversity in plants.	
Links to other learning activity areas: Hygiene and Nutrition			Suggested Community Service Learning through application: Learners listen to a guest speaker on plant safety.	
Suggested Non formal Activity to support learning: learners to present a message on safe ways when handling plants to enhance safety.			Suggested assessment: oral questions, written questions, e-assessment or quiz.	

Suggested Assessment Rubric

Sub-strand	Exceeds expectations	Meets expectation	Approaches Expectation	Below expectation
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Categorizing plants	Consistently and correctly identify and categorize plants according to specified features.	Correctly identify and categorize plants according to specified features.	Sometimes identify and categorize plants according to specified features.	Rarely identify or categorize plants according to specified features.
Safety when handling plants	Consistently and correctly describes and observe safety when handling plants	Correctly describes and observe safety when handling plants.	Sometimes describes and observe safety when handling plants.	Rarely describes or observes safety when handling plants

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Strand	Sub-strand	Specific learning outcomes	Suggested learning experiences	Key question(s)
1.0 Environment and its resources	1.5 Animals (10 Lessons) 1.5.1 Importance of animals	By the end of the sub-strand, the learner should be able to: a. State different uses of animals to people b. Identify different animals that provide food products c. Appreciate the importance of animals to the people.	<ul style="list-style-type: none"> ✓ Learners to use stimulus materials to identify the different uses of animals to people (source of food, security, companionship, manure, animal power, sports, tourist attraction) ✓ Learners discuss the different food products people get from animals (meat, milk, eggs, honey) ✓ In groups, learners make a journal on uses of animals to people as a class project. ✓ Learners discuss with the teacher the suggested assessment criteria for the project and timeframe. 	What are the uses of animals to people
Core Competence to be developed: Learning to learn, Critical thinking and problem solving, creativity and imagination, communication and collaboration.				
Link to PCI's: ESD: animal welfare Education: Environment and its resources. Life skills: Effective communication; learners state the importance of animals to humans.			Link to values: Responsibility, care, love: learners appreciate the usefulness of animals to people.	
Link to other learning activity areas: Religious Education: appreciating God's creation.			Suggested community service learning activity: Finding out on the uses of different animals from parents or guardians.	
Suggested non formal activity to support learning: learners to display the class project for the other learners to appreciate.			Suggested assessments Oral questions, observe as they work in groups, written questions.	

Suggested Assessment Rubric

Exceeds expectations	Meets expectation	Approaching expectations	Below expectation
Consistently and correctly states the uses of animals to people and identifies different food products people get from animals.	Correctly states the uses of animals to people and identifies different food products people get from animals.	Sometimes states the uses of animals to people and identifies different food products people get from animals.	Rarely states the uses of animals to people or identifies different food products people get from animals.

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Key inquiry question
1.0 Environment and its resources	1.6 Energy: Heat (10 Lessons) 1.6.1 Sources of Heat	By the end of the sub-strand, the learner should be able to: a. Identify sources of heat in the environment b. Match different sources of heat to their fuels in the environment c. Appreciate the different sources of heat in the community.	<ul style="list-style-type: none"> ✓ Using relevant stimulus materials, learners to identify sources of heat in the environment (sun, gas cooker, electric cooker, charcoal burner, traditional jiko, stove) ✓ Learners to think, pair and share their experiences on sources of heat at home and community ✓ In groups, learners to match the different sources of heat with the fuels used (gas, electricity, charcoal, firewood, kerosene) ✓ Learners interact with parents or guardians to appreciate the types of fuels used in the community and report back. 	What are the sources of heat?
	1.6.2 Uses of heat in the environment	By the end of the sub-strand, the learner should be able to: a. Identify uses of heat energy in the environment b. Use heat energy responsibly to promote conservation and safety c. Appreciate conservation of heat energy in daily life.	<ul style="list-style-type: none"> ✓ Learners to discuss uses of heat energy (warming, cooking, ironing, drying) ✓ Learners to use multimedia resources to find out uses on heat energy in daily life. ✓ In groups, learners to share experiences on appropriate use of energy in the environment to conserve heat energy (when warming, ironing, cooking, drying) 	How is heat energy used in daily life
	1.6.3 Dangers of heat energy	By the end of the sub-strand, the learner should be able to:	<ul style="list-style-type: none"> ✓ Learners to identify materials that could start 	

	<ul style="list-style-type: none">a. Identify materials that can start fire in the houseb. Identify dangers of heat energy at homec. Demonstrate an understanding of safe ways of moving from the house in case of a fire outbreak.	<p>a fire at home (match box, petrol, kerosene, gas, electricity)</p> <ul style="list-style-type: none">✓ Learners are guided to identify common causes of fire.✓ Learners simulate safe ways of moving out of the house in case of a fire outbreak.✓ Learners to visit a fire station for more information on fires and safety procedures.	<ul style="list-style-type: none">1. What are the dangers of heat energy?2. Which materials cause fire?3. How should we safely move away in case of a fire
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			<ul style="list-style-type: none"> ✓ Learners to develop “Dos” and “Don’ts” list during fire outbreaks. The list should be shared at school and at home. 	house?
Core-competence to be development: Collaboration and communication, learning to learn; critical thinking and problem solving.				
Links to PCI’s: ESD: Disaster Risk Reduction; Environmental Education: Environment and its resources: Energy Life skills: Effective communication; learners discuss in			Links to values: Cooperation, responsibility and respect	
Links to other learning activity areas (s): Hygiene and Nutrition			Suggested community Service Learning activity: visit to a fire station	
Suggested non-formal activity to support learning through application: Sharing the DOs and DONT’s during fire outbreak in a school assembly.			Suggested assessment: observation, oral questions, and written exercises.	


Suggested Assessment Rubric

Sub-strand	Exceeds expectations	Meets expectation	Approaches expectation	Below expectation
Sources of heat	Consistently and correctly identifies sources of heat and matches the heat to their fuels.	Correctly identifies sources of heat and matches the heat to their fuels.	Sometimes identifies sources of heat and matches the heat to their fuels.	Rarely identifies sources of heat or matches the heat to their fuels.
Uses of heat in the environment	Consistently and correctly identifies and uses heat sources and appreciates conservation of heat in the environment.	Correctly identifies and uses heat sources and appreciates conservation of heat in the environment.	Sometimes identifies and uses heat sources and appreciates conservation of heat in the environment.	Rarely identifies and uses heat sources or appreciates conservation of heat in the environment.

Dangers of heat	Consistently and correctly identifies material that can start fire, dangers of heat and demonstrates moving out for safety.	Correctly identifies material that can start fire, dangers of heat and demonstrates moving out for safety.	Sometimes identifies material that can start fire, dangers of heat and demonstrates moving out for safety.	Rarely identifies material that can start fire, dangers of heat or demonstrates moving out for safety.
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Strand	Sub-strand	Specific learning outcomes	Suggested learning experiences	Key inquiry question(s)
2.0 Social Environment	2.1 Harmonious Living in the Community (25 Lessons) 2.1.1 Sanitation in the community	By the end of the sub-strand, the learner should be able to: a. Describe ways of keeping the market place clean b. Participate in keeping the market place clean to promote social cohesion c. Appreciate a clean market place for good health.	<ul style="list-style-type: none">✓ Learners to visit a market place, explore the sanitation✓ Learners to observe cleaning activities at a market place from a video clip or photograph✓ Learners to reflect think and share their experiences on the sanitation situation in the market place.✓ Learners to discuss ways of keeping the market place clean.✓ Learners to discuss the importance of keeping the market clean✓ Learners to discuss the role their parents or guardians play during a market cleaning days	How could we keep our market place clean?

<p>2.2 Keeping safe in the community 2.2.1 Responding to strangers</p>	<p>By the end of the sub-strand, the learner should be able to:</p> <ol style="list-style-type: none"> Identify appropriate ways of responding to strangers in the community Respond appropriately to strangers in the community Take personal responsibility in keeping safe to limit risks. 	<ul style="list-style-type: none"> ✓ Learners to listen actively to a relevant age appropriate case story on responding to strangers ✓ Learners to watch a video clip on how they could respond appropriately to strangers ✓ In groups, learners to reflect, share and report back their experiences about responding to strangers ✓ Learners are guided on how to use phone when in danger ✓ Learners to simulate ways of responding appropriately to strangers ✓ Learners to find out from parents or 	<p>How could we respond appropriately to strangers?</p>
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<p>2.2.2 Safe and dangerous places in the community</p>	<p>2.2.2 Safe and dangerous places in the community</p>	<p>By the end of the sub-strand, the learner should be able to:</p> <ol style="list-style-type: none"> Identify safe places in the community Identify dangerous places in the community Keep personal safety in the community Respond appropriately to security threats in the community. 	<p></p> <ul style="list-style-type: none"> Learners to discuss and identify safe places in the community Learners to discuss and identify dangerous places in the community Learners to do age appropriate community mapping to identify and mark the safe places and dangerous places Learners to recognize indications of dangerous places and situations using the map Learners to respond appropriately to threats against safety Learners to discuss with their parents or guardians about dangerous places in the community and report back. 	<p>What are the safe places in the community? What are the dangerous places in the community?</p>
<p>2.3 Safe Travel 2.3.1 Basic road safety signs</p>	<p>2.3 Safe Travel 2.3.1 Basic road safety signs</p>	<p>By the end of the sub-strand, the learner should be able to:</p> <ol style="list-style-type: none"> Recognize basic road safety signs Use basic road safety signs appropriately to enable safe travel Appreciate the use of basic road safety signs in enabling safe travel. 	<ul style="list-style-type: none"> Learners to observe stimulus materials to recognize basic road safety signs (pedestrian) Learners to visit a nearby road or children's park for a demonstration on appropriate use of the basic road signs Learners to play an educative multimedia game on basic road signs (crossing, stop sign, traffic lights) Learners to ask their parents or guardian to take them on a safety walk around their neighbourhood and report back. 	<p>How do basic road safety signs enable safe travel?</p>
<p>2.4 Environmental and cultural events in the community</p>	<p>2.4 Environmental and cultural events in the community</p>	<p>By the end of the sub-strand, the learner should be able to:</p> <ol style="list-style-type: none"> State how cultural events promote environmental and social wellbeing in the 	<ul style="list-style-type: none"> Learners to use stimulus materials on cultural and environmental events in the community Learners to discuss on environmental and cultural events that promote social wellbeing (tree planting, cultural festivals) Learners are guided on how they could 	<p>1. What is the importance of environmental and cultural events? 2. How could we participate in</p>

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	<p>b. Participate in cultural events that promote environmental and social wellbeing in the community</p> <p>c. Develop interest in environmental and cultural events that promote social wellbeing in the community.</p>	<p>participate in events that promote environmental and social well being</p> <ul style="list-style-type: none"> ✓ Learners to find out from elders, parents or guardians about environmental and cultural events that promote social wellbeing and report back. 	
<p>Core Competences to be developed: Creativity and imagination, communication and collaboration, learning to learn: gathering information from parents or guardians</p>			
<p>Link to PCIs: Citizenship: social cohesion; learners discuss roles of community in caring for environmental resources</p> <p>ESD: Environmental Education, harmonious living in the community.</p>		<p>Link to values: Responsibility, peace, social justice.</p>	
<p>Links to other learning activity areas: Movement and Creative activities, Languages: on listening to case stories.</p>		<p>Suggested Community Service Learning activities: Learners gathering information from parents or guardians.</p>	
<p>Suggested non formal activity to support learning through application: sharing messages during community</p>		<p>Suggested assessment: Observation, oral questions and written work.</p>	

Suggested Assessment Rubric

Sub-strand	Exceeds expectations	Meets expectation	Approaches Expectation	Below expectation
Sanitation in the community	Consistently and actively participates in keeping the market place clean and appreciates a clean market.	Actively participates in keeping the market place clean and appreciates a clean market.	Sometimes occasionally participates in keeping the market place clean.	Rarely participates in keeping the market place clean.

Keeping safe in the community	Creatively and appropriately responds to strangers and takes personal responsibility to keeping safe.	Responds appropriately to strangers and takes personal responsibility to keeping safe.	Sometimes responds to strangers appropriately or takes personal responsibility to keeping safe.	Rarely responds to strangers appropriately or takes personal responsibility to keeping safe.
Safe and dangerous places in the community	Consistently and correctly identifies safe and dangerous places and responds appropriately to	Correctly identifies safe and dangerous places and responds appropriately to security threats.	Sometimes identifies safe and dangerous places and responds appropriately to security threats.	Rarely identifies safe and dangerous places or responds appropriately to security threats.

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	security threats.			
Basic road safety signs	Consistently and correctly identifies and uses basic road safety signs for safe travel.	Correctly identifies and uses basic road safety signs for safe travel.	Sometimes identifies and uses basic road safety signs for safe travel.	Rarely identifies and uses basic road safety signs for safe travel.
Environmental and cultural events in the community	Innovatively and actively identifies and participates in environmental and cultural events that promote social wellbeing in the community.	Actively identifies and participates in environmental and cultural events that promote social wellbeing in the community.	Sometimes identifies and participates in environmental and cultural events that promote social wellbeing in the community.	Rarely identifies or participates in environmental and cultural events that promote social wellbeing in the community.

Strand	Sub strand	Specific learning outcome	Suggested learning experiences	Key inquiry question(s)
2.0 Social environment	2.2 Enterprise projects (25 Lessons) 2.2.1 Waste management for income generation	By the end of the sub-strand, the learner should be able to: a. Identify ways of using waste responsibly to generate income b. Determine suitable waste management	<ul style="list-style-type: none"> ✓ Learners to identify ways of using waste to generate income (Collection, sorting, Reducing Reusing, recycling) ✓ Learners to observe varied stimulus materials in waste management 	What activities could learners undertake to generate income from waste management

	project at school.	activity to generate income at school c. Participate in waste management activity to generate income at school d. Develop interest in undertaking income generating activities in waste management.	activities to derive suitable activities for income generation ✓ Learners to discuss and identify suitable waste management activity that could be undertaken by the class to generate income (age appropriate activity) ✓ Learners to discuss and develop a plan to undertake the income generating activity that will use waste from the	
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			<p>immediate environment</p> <ul style="list-style-type: none"> ✓ Learners to implement the selected project for managing waste to generate income ✓ Learners to discuss with parents or guardians on waste management activity that could generate income at home. 	
<p>Core-competence to be developed: Critical thinking and problem solving; reusing and recycling wastes. Communication and collaboration: discussions to build consensus.</p>				
<p>Link to PCI's: ESD: Environmental Education; social environments Financial literacy: Enterprise projects</p> <p>Citizenship: Social cohesion: learners share ideas on income generating activities.</p>			<p>Link to values: Responsibility; learners find out from parents income generating activities</p>	
<p>Suggested non-formal activity: discussion on importance of managing waste to generate income.</p>			<p>Suggested community Service Learning activity: Find more from parents or guardians on how to sell products</p>	
<p>Links to other learning activity areas (s): Mathematics; Money</p>			<p>Suggested assessment :Oral questions ,Project work</p>	

Suggested Assessment Rubric

Exceeds expectations	Meets expectation	Approaches expectation	Below expectation
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<p>Consistently and creatively identify and determine ways of using waste to generate income and participate actively in the waste management project.</p>	<p>Creatively identify and determine ways of using waste to generate income and participate actively in the waste management project.</p>	<p>Sometimes identify and determine ways of using waste to generate income and participate actively in the waste management project.</p>	<p>Rarely identify and determine ways of using waste to generate income and participate actively in the waste management project</p>
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Strand	Sub-strand	Specific learning outcomes	Suggested learning experiences	Key inquiry question(s)
3.0 Caring for the environment	3.1 Caring for Plants (5 Lessons) 3.1.1 Communicating plant protection messages in the community.	By the end of the sub-strand, the learner should be able to: a. Give ways of protecting plants in the community b. Create persuasive messages on plants protection in the community c. Communicate messages that protect plants in the community d. Appreciate plant protection in the community.	<ul style="list-style-type: none"> ✓ Learners to explore and identify areas where plants have been destroyed in community ✓ Learners to discuss and create plant protection messages. ✓ Learners to design plant protection messages using print and electronic media. ✓ Learners to display and peer asses the plant protection messages. ✓ Learners to recite or sing songs on plant protection messages during school assembly. ✓ Learners to convey the plant protection messages to the community through print and electronic media. 	How could we communicate plant protection messages in the community?
Core Competences to be developed: Communication and collaboration, Imagination and creativity and Learning to learn.				
Link to PCIs: ESD: Environmental Education: Care for the environment; caring for plants Citizenship: Plant protection. Life skills: cooperation: creating plant protection messages and peer assessment of messages.			Link to Values: Responsibility learners convey plant protection messages through poems, songs and posters	
Links to other learning activity areas: Language, Music and			Suggested Community Service Learning activities: communicating	

Creative Art in reciting poems, singing songs and creating	plant protection messages to the community in various fora.
Suggested non formal activity to support learning: Share plant protection messages at school assembly, clubs and	Suggested assessment: written and oral work; observation

Exceeds expectations	Meets expectation	Approaches expectation	Below expectation
Consistently and correctly identifies, creates, communicates and appreciates plant protection messages.	Correctly identifies, creates, communicates and appreciates plant protection messages.	Sometimes identifies, creates, communicates and appreciates plant protection messages.	Rarely identifies, creates, communicates and appreciates plant protection messages.

Strand	Sub strand	Specific learning outcome	Suggested learning experiences	Key inquiry question(s)
3.0 Caring for the environment	3.2 Caring for Animals (5 Lessons) 3.2.1 Caring for animals in distress	By the end of the sub-strand, the learner should be able to: a. Recognize signs of distress in animals b. Care for animals in distress c. Appreciate the need to relieve animals of distress.	<ul style="list-style-type: none"> ✓ In groups, learners to discuss their experiences on how animals in distress are handled in the community ✓ Learners to use stimulus materials to develop understanding of various signs of distress in animals ✓ Learners to visit a nearby farm to learn and practice some care activities for animal ✓ Learners to be guided by a guest speaker on animal rights, freedoms and appropriate 	<p>1. What indicates that an animal is in distress?</p> <p>2. How could we respond to an animal in distress?</p>
Core-competence to be developed: Communication and collaboration in group activities				
Links to PCI's: ESD: Animal Welfare Education, caring for animals Life skills: Effective communication ;learners identify signs of			Links to values: responsibility and unity in groups learners work.	

distress in animals	
Links to other learning activity areas (s): Religious Studies: appreciating animals as God's creation	Suggested Community Service Learning activities: field visit to a farm to learn about animal care.
Suggested non-formal activity to support learning: Debate on animal rights.	Suggested Assessment: Oral question and written work.

Exceeds expectation	Meets expectation	Approaches expectation	Below expectation
Consistently and correctly recognizes, cares and appreciates relieve of distress in animals.	Correctly recognizes, cares and appreciates relieve of distress in animals.	Sometimes recognizes, cares and appreciates relieve of distress in animals.	Rarely recognizes, cares or appreciates relieve of distress in animals.

Strand	Sub-strand	Specific learning outcomes	Suggested learning experiences	Key inquiry question(s)
3.0 Care for the environment	3.3 Managing waste (10 Lessons) 3.3.1 Disposing of waste in the community	By the end of the sub-strand, the learner should be able to: a. State ways of disposing of waste in the community b. Participate in disposing of waste in the community c. Dispose waste responsibly to limit risks to self, others and the environment	<ul style="list-style-type: none"> ✓ Learners to discuss various types of waste in the community (avoid sewage and e-wastes) ✓ Learners to watch a video clip on a waste dump site and identify the various types of waste, how they are sorted and disposed of responsibly ✓ Learners to reflect, think and share ideas about types of waste and how they could be sorted and disposed of. ✓ Learners to demonstrate sorting and disposal of waste in the community. 	How could we dispose of waste in the community responsibly

3.3.2 Communicating messages on managing waste	By the end of the sub-strand, the learner should be able to: a. Recognize persuasive messages on how to manage waste b. Use hand, print and electronic media	<ul style="list-style-type: none">✓ Learners to observe messages on managing waste from different media✓ Learners to discuss ways of communicating messages on managing waste✓ learners to be guided to create using	How could we communicate messages on waste management?
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		to create messages on how to manage waste in the community c. Communicate messages on management of wastes in the community.	different media persuasive messages on waste management ✓ Learners to peer assess then display to the community the created waste management messages.	
	3.3.3 Engaging parents or guardians in waste management	By the end of the sub-strand, the learner should be able to: a. Identify ways of involving parents or guardians in waste management b. Involve parents or guardians in waste management c. Appreciate the participation of parents or guardians in waste management	<ul style="list-style-type: none"> ✓ Learners to discuss on ways of involving parents in waste management ✓ Learners to discuss with parents on various ways of managing waste and report back ✓ Learners to show case ways of managing waste to parents or guardians during school events ✓ Learners to involve parents or guardians in establishing simple waste management projects. 	How could we involve parents or guardians in waste management?
Core Competences to be developed: Critical thinking and problem solving, Creativity and imagination, Communication and collaboration.				
Link to PCIs: ESD: Environmental education; care for environment; managing waste responsibly, Life skills: Effective communication		Link to Values: Responsibility and unity; learners are guided to manage waste		
Links to other learning activity areas: Hygiene and Nutrition, Movement and creative activities in creating messages for waste management.		Suggested Community Service Learning activity: involving parents in waste management projects.		
Suggested non formal activity to support learning through application: show casing waste management during school		Suggested Assessment: written, oral questions, project work		

Suggested Assessment Rubric

Sub-strand	Exceeds expectations	Meets expectation	Approaches expectation	Below expectation
Disposing wastes in the community	Consistently and correctly states ways, participates and manages wastes responsibly to limit risks to self and	Correctly states ways participates and manages wastes responsibly to limit risks to self and others.	Sometimes states ways, participates and manages wastes responsibly to limit risks to self and others.	Rarely states ways, participates or manages wastes responsibly to limit risks to self and others.

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	others.			
Communicating messages on management of wastes	Consistently and correctly recognizes uses and communicates appropriate messages for waste management.	Correctly states ways participates and manages wastes responsibly to limit risks to self and others.	Sometimes states ways participates and manages wastes responsibly to limit risks to self and others.	Rarely states ways, participates or manages wastes responsibly to limit risks to self and others.
Engaging parents or guardians in waste management	Consistently and correctly identifies, involves and appreciates participation of parents or guardians in waste management.	Correctly identifies, involves and appreciates participation of parents or guardians in waste management.	Sometimes identifies, involves and appreciates participation of parents or guardians in waste management.	Rarely identifies, involves and appreciates participation of parents or guardians in waste management.

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Key inquiry question(s)
3.0 Care for the environment	3.4 Caring for Soil (10 Lessons)	By the end of the sub-strand, the learner should be able to: a. State the importance of	<ul style="list-style-type: none"> ✓ Learners to discuss the importance of trees in protecting soil ✓ Learners to use varied stimulus material 	How do trees protect the soil?

	3.4.1 Planting trees to protect soil	planting trees b. Plant trees for soil protection c. Demonstrate willingness to plant trees to protect soil for environmental sustainability.	to observe how trees protect soil ✓ Learners to observe demonstration on planting tree seedling to protect (the seedlings to be planted where soil erosion is in progress) ✓ Learners to plant some tree seedlings to protect soil ✓ Learners to share with parents or	
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	Ecolebooks.com		guardians how planting tree seedlings protect the soil. 	
	3.4.2. Improving soil	<p>By the end of the sub-strand, the learner should be able to:</p> <p>a. Identify materials used to improve the soil</p> <p>b. Apply manure on a seedbed</p> <p>c. Apply mulch on a seedbed</p> <p>d. Develop interest in caring for the soil for using environmental sustainability.</p>	<ul style="list-style-type: none"> ✓ Learners observe stimulus material to soil (mulch from organic material, farm yard manure) ✓ Learners to use varied stimulus materials to observe how mulch and manure are identify materials used to improve the ✓ Learners to observe a demonstration on how to mulch and apply manure to a seedbed. ✓ Learners to mulch and apply manure to a seedbed used to care for soil. ✓ Learners to share with parents or guardians on the use of mulch and manure in caring for soil. 	What do we use to improve soil?
Core-competence to be development: Creativity and imagination, Communication and collaboration, critical thinking and problem solving.				
Links to PCI's: ESD-Environmental Education; care for the environment Citizenship: social cohesion, learners in groups use mulch and manure to improve soil.		Links to values: Respect learners share experiences on how to mulch and add manure to care for soil: responsibility; learners participate in planting trees to care for soil.		
Links to other learning activity areas (s): Mathematical Activities		Suggested community Service Learning activities: Learners share with parents or guardians on the use of mulch and manure in caring for		
Suggested non-formal activity to support learning: mulch and apply manure to the school seed bed.		Suggested Assessment: project work ,written questions and observation		

Suggested Assessment Rubric

Sub-strand	Exceeds expectations	Meets expectation	Approaches expectation	Below expectation
Planting trees to protect soil	Consistently and correctly states importance, plants trees	Correctly states importance, plants trees and demonstrates	Sometimes states importance, plants trees and demonstrates	Rarely states importance, plants trees or demonstrates

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	and demonstrates willingness to protect soil.	willingness to protect soil.	willingness to protect soil.	willingness to protect soil.
Improving soil	Consistently and correctly identifies, applies mulch, manure and develops interest in caring for the soil.	Correctly identifies, applies mulch, manure and develops interest in caring for the soil.	Sometimes identifies, applies mulch, manure and develops interest in caring for the soil.	Rarely identifies, applies mulch, manure and develops interest in caring for the soil.

stimulus materials ways of protecting

Strand	Sub strand	Specific learning outcome	Suggested learning experiences	Key inquiry question(s)
3.0 Caring for the environment <small>Compiled and Distributed by Schools Net Kenya P.O. BOX 85726 - 00200, NAIROBI Mob: 0725788400 Email: info@snkenya@gmail.com Website: www.schoolsnetkenya.com</small>	3.4 Caring for water 3.4.1 Exploring ways of collecting rain water (10 Lessons)	By the end of the sub-strand, the learner should be able to: a. Identify ways of collecting rain water in school and the community b. Collect rain water at school c. Appreciate the need of collecting rain water for domestic uses.	<ul style="list-style-type: none"> ✓ Learners to share experiences on ways of collecting rain water ✓ Learners to observe stimulus materials showing ways of collecting rain water in school and community ✓ Learners to identify ways of collecting rain water in school and the community ✓ Learners to improvise means of collecting rain water for use ✓ Learners to inquire from parents or guardians on ways of collecting rain water and report back. 	How could we collect rain water in school and community? 21
	3.4.2 Caring for water reservoirs in the community	By the end of the sub-strand, the learner should be able to: a. Identify ways of protecting reservoirs b. Participate in protecting water reservoirs in the community c. Appreciate the need to care for reservoirs in the	<ul style="list-style-type: none"> ✓ Learners to observe appropriate water reservoirs (water tanks) ✓ Learners to identify ways of protecting water sources and the reservoirs (fencing around, covering, fetching through the tap, regular cleaning) 	How could we care for water reservoirs

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			<p>participate in appropriate activities towards protection reservoirs</p> <ul style="list-style-type: none"> ✓ Learners to sing songs or recite poems supporting caring for water reservoirs. 	
<p>Core-competence to be development: Critical thinking and problem solving (protecting water sources and reservoirs), self-efficacy.</p>				
<p>Links to PCI's: ESD: Environmental Education; caring for environment Citizenship: social cohesion, learners work in groups to identify ways of protecting water sources.</p>			<p>Links to values: responsibility, respect; sing songs and recite poems related to water sources and reservoirs. Responsibility-learners participate in community activities to protect water sources.</p>	
<p>Links to other learning activity areas (s): Hygiene and Nutrition on care of water.</p>			<p>Suggested Community Service Learning activities: Learners are guided to actively participate in community activities that involve protection of water sources and reservoirs.</p>	
<p>Suggested non-formal activity to support learning: Learners are guided by the teacher to actively participate in community activities that involves caring for water reservoirs</p>			<p>Suggested Assessment: Written work, oral questions.</p>	

Suggested Assessment Rubric

Sub-strand	Exceeds Expectation	Meets Expectation	Approaches Expectation	Below Expectation
Exploring ways of collecting rain water	Consistently and creatively identifies ways, collects and appreciates need for collecting rain water for domestic use.	Creatively identifies ways, collects and appreciates need for collecting rain water for domestic use.	Sometimes identifies ways, collects and appreciates need for collecting rain water for domestic use.	Rarely identifies ways, collects and appreciates need for collecting rain water for domestic use.
Caring for water	Consistently and correctly	Correctly identifies ways,	Sometimes identifies	Rarely identifies ways,

reservoirs in the community	identifies ways, participates in caring and appreciates the need to care for water reservoirs.	participates in caring and appreciates the need to care for water reservoirs.	ways, participates in caring and appreciates the need to care for water reservoirs.	participates in caring and appreciates the need to care for water reservoirs.
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Strand	Sub strand	Specific learning outcome	Suggested learning experiences	Key inquiry question(s)
3.0 Care for the environment	3.5 Caring For Energy (10 Lessons) 3.5.1 Energy conservation campaigns in the community	By the end of the sub-strand, the learner should be able to: a. State ways of promoting energy conservation in the community b. Participate in energy conservation campaigns in the community c. Appreciate the need promote energy conservation in the community.	<ul style="list-style-type: none"> ✓ Learners to observe multimedia resources showing ways of promoting energy conservation (light and heat energy) ✓ Learners to reflect, think and share their ideas on promoting energy conservation in the community ✓ Learners to compose songs, poems, and create posters on energy conservation in the community. Then, pass the message in school and community events ✓ Learners to gather information about energy conservation in the community from parents or guardians and report back. 	How could we promote energy conservation?
Core Competences to be developed: Imagination and creativity and Communication and collaboration, Critical thinking and problem solving.				
Link to PCIs: ESD: Environmental Education: care for the environment Citizenship: social cohesion: learners in groups share ideas Life skills: effective communication.			Link to values: Responsibility and unity: promoting energy conservation.	
Links to other learning activity areas: Languages, Movement and Creative activities (music).			Suggested Community Service Learning activities: engaging the community in energy conservation campaign.	
Suggested non formal activity to support learning: share ideas			Suggested Assessments: written questions, oral questions, observation	

on how during school assembly, in clubs and societies.

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Suggested Assessment Rubric

Exceeds expectations	Meets expectation	Approaches Expectation	Below expectation
Consistently and creatively states ways, participates and appreciates energy conservation campaign.	Creatively states ways, participates and appreciates energy conservation campaign.	Sometimes states ways, participates and appreciates energy conservation campaign.	Rarely states ways, participates and appreciates energy conservation campaign.

SUGGESTED LEARNING RESOURCES

The suggested list of learning resources is neither exhaustive nor prescriptive. It is important for the teacher to explore the wealth of learning resources, improvise or collect during a field study. The suggested resources include:

- ✓ Local environment

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- ✓ Real objects/Specimens/realia
- ✓ Maps
- ✓ Photographs, pictures paintings
- ✓ Flash cards and posters
- ✓ TV/video/films/slides/ Internet sources

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- ✓ Weather instruments
- ✓ Artefacts
- ✓ Museum/historical sites
- ✓ Newspaper cuttings
- ✓ Magazines/journals
- ✓ Libraries
- ✓ Display boards

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