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QUESTION 1

Environmental education in the 20th century

1. In 1946 UNESCO (United Nations Education, Scientific and Cultural Organisations) was establish as a part of the broader United Nations Enterprise.
- Only concerned with education in a developmental context, but through contact with bodies (IUCN) it became part of the process of developing environmental education.

2. IUCN Conference in Paris 1948
- The International Union for the conservation of Nature and Natural resources Conference was held at Fontainebleau from September 30 to October 7, 1948.
- The established the Inter-national Union for the Protection of Nature.
- The term "Environmental Education" was first used.

3. Founding of IUCN in 1949
- This organization is an ideological actor, they take conservation action, producing and circulating a definition of what constitutes conservation.

4. The term "Environmental Education" was first used in the **U.K Conference held at Keele University in 1965.**

5. The Paris Biosphere Conference of 1968

- Conference was held in Paris, France, September 4-13, 1968.
- UNESCO planned the first conference between States which had the same aim to have a good balance between environment and development, creating sustainable development.

6. International Working Meeting on Environmental Education and the School Curricula (1970)

- This event was held June 20 to July 11 in 1970 at the Foresta Institute, Carson City, Nevada in the USA.

7. The United Nations Conference (1972)

- It was an intergovernmental conference held in Stockholm, Sweden, 5 to 16 June 1972. (Stockholm Conference).

8. The International Workshop on Environmental Education in 1975 (Belgrade Charter).

- This workshop was held in Belgrade, Yugoslavia by UNESCO/UNEP in October 13–22 in 1975.

9. The Intergovernmental Conference on Environmental Education in 1977 (Tbilisi Declaration).

- In October 1977, UNESO first Intergovernmental Conference on Environmental Education was held in Tbilisi, Georgia, USSR.

10. The World Conservation Strategy (1980).

- It was launched by IUCN, UNEP and then World Wildlife Fund (WWF).
- This document shown the importance of resource conservation through sustainable development and that conservation and development are equally inter-dependent from one another.

11. In 1982 Treverton (situated in Mooi River) held the first International Environmental Education Conference in Southern Africa.

- The Environmental Education Association of Southern Africa (EEASA) was formed which discussed the common issues.

QUESTION 2

1. Management of resources

- **Waste, littering and recycling**: Too much litter in the school (plastics, paper and packaging of some sort), There is no policy in place or implementation on disposal methods.
- **Electricity overconsumption**, high-energy appliances are left on and there is no commitment to conserve energy by the staff members.
- **Water over-consumption** due to the dripping taps. (Depletion of a natural resource)

2.

Possible effects of each environmental issue if left unattended:	**Waste/littering**: poor management have environmental, economic and social effects. Litter is unattractive and give an illusion of poor living standards. It can also cause vehicle accidents and injuries, plants can be smothered and dangerous chemicals that get into the soil can harm plants when they take up the contamination through their roots. Litter can start fires and it can harm or kill animals (Waste/litter ends up in water and it change the chemical composition of the water and it will affect all ecosystems that exist in the water. It can also cause harm to animals that drinks the polluted water). Waste/litter also attracts rats and harmful bacteria that have a negative impact on the health of humans. **Energy over-consumption**: electrical use is increased. Energy demands are obtained from burning fossil fuels (coal is the most economically way) resulting in gaseous and solid emissions in the air. The gases (greenhouse gasses trap heat in the atmosphere) include sulphur dioxide, carbon dioxide and oxides of nitrogen (air pollution and soil pollution). Sulphur dioxide and carbon dioxide have climate effects (global warming) on the environment. **Water over-consumption**: it can lead to water scarcity which effects biodiversity, drinking water supplies, food production, and landscapes can be altered and degrade without enough water.
Proposed action Plan:	**Lack of management of the school ground:** Lack of biodiversity (lack of birds, mini creatures (food for larger

	animals), other creatures coming out at night, flora (native plants)) and the school grounds look unattractive. The following problems will be addressed in the School: **1. Curriculum - Plan is to focus on the curriculum regarding environmental education.** **Implementation:** - Environmental focus and sustainable education in the schools teaching and learning area. - Whole school participation in special environmental programmes, events and activities. **2. Management of resources** **2.1 Waste/littering - Plan is to reduce waste/litter by 30%.** **Implementation:** - Plan and implement a policy regarding waste/litter/recycling. - Students are assigned to dispose of waste/litter and recycled products daily in the appropriate manner using the separate bins marked according to the recycling colour codes. - Students take responsibility for disposing of food scraps on a daily basis and take it to the schools compost bin and maintain the compost bin. **2.2 Energy over-consumption - Plan is to reduce energy consumption by 25%.** Implementation: - Plan and implement a policy regarding energy conservation. - Replace fluorescent lights with LED lamps if possible. - To switch off any technological equipment, lighting, heating/cooling, desktops and notebooks etc. when you leave or don't need to use. - Students participate in work/activities relating to energy. - Students will investigate ways to conserve energy. - The result = greenhouse gas emissions are reduced. **2.3 Water over consumption - Plan is to reduce water consumption by 10%**

	Implementation: - To plan and implement policy regarding water conservation. **<u>The environmental education and sustainability messages that the programme is intended to put across to the learners.</u>** Learners must be aware of, and concerned (sensitivity) about the total environment and its associated problems and which has the knowledge, skills, motivation and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones. This programme equipped learners with universal values such as ethical rules where people should always behave towards the environment in a way that satisfies our own needs, the needs of other people, and the needs of species other than humans and also we must treat the environment in such a way that we consider the needs of future generations. Hygiene, a safe habitat and shelter are basic needs that need to be satisfied. The satisfaction of the needs of other species, populations and ecosystems should not interfere with the satisfaction of basic human needs. Ecological rules where the use of exhaustible resources must be stopped, we must conserve as many kinds of organisms as possible and technological systems must be managed and only replace them if there is another system that is more economical in terms of energy – measure to limit pollution should be planned simultaneously. Social rules where the consumption of resources should be reduced – each individual must use less of the resource such as water. People must not buy

	product in disposable packaging or dump garbage in the school grounds.

QUESTION 3

3.1 What is the natural resource that is at the heart of the issue discussed above?

The natural resource is the refined mineral Coltan. Coltan is short for columbite–tantalite and industrially it is known as tantalite.

3.2 Where and how is the resource obtained?

The Coltan is obtained in the Democratic Republic of Congo (DRC) in the mines in Eastern Congo through child labour under terrible working conditions.

3.3 From the passage identify two (2) issues for each of the following environmental dimensions of life:

How do we know whether a community is living sustainable?

3.3.1 Social (This system provides ways for people to live together peacefully, fairly and respect for human rights and dignity)

1. Human rights of the children are ignored; these school-age children (child labour) are not respected because they are forced to work in the mines and there right to education is denied, they don't attend school – personal growth and learning opportunities are denied and this leads to more social problems.

2. Danish Government tried to promote peace and stability in Africa and they focused on the part that natural resources plays because it causes too many conflicts. The NGOs also want a permanent position in the UN in order to prevent these conflicts.

3.3.2 Political (a system which power is exercised fairly and democratically to make decisions about the way social and economic systems use die biophysical environment ((life support systems for all life, human and non-human))

1. At this stage only the local militants benefit financially from this and the government don't have much of a say in this or they are also taking part of this. This causes political unfairness and this make that the situation will not be fairly addressed. The former partner Heritiers de la Justice of DanChurch Aids' have experienced several assassinations of their staff members when they try to oppose these cheap labour locally in the mines. They stated that only international pressure may stop this behaviour.

2. The Minister of Foreign Affairs want to discuss the issue in order to find more effective tools for the United Nations (UN) so that they can punish those who make profit out of conflict resources.

3.3.3 Economic (systems which provide a ongoing means of livelihood (jobs and money) for people)

1. The use of mobile phones increased and the demand for coltan has increased, they deplete natural resources (unsustainable mining) and this makes the country poor.

2.The profit made from selling natural resources is used to finance conflicts. The control over these resources works through maintaining local militia and abusing cheap labour to dig in the mines. The militants have control over the money they receive through maintaining local militia and exploiting cheap labour to dig the mines.

3.4 What has been the effect in the Eastern Congo of using child labour in coltan mines? The effect was that an estimated 30% of school-aged children didn't attend school because they had to work in the mines and there are still children working in the mines. Their education right is denied and this influences their development negatively that means no university and good job prospects.

3.5 What happens to most of the profits that are made from selling coltan to outside countries?

The profits were used to sustain the civil wars in Africa, especially in the Democratic Republic Congo. The money is falling in the hands of the militants.

3.6. What other natural resources is the cause of many conflicts in Africa?
Other natural resources that they receive an income form is oil, diamonds, ivory and export wood that caused many conflicts.

QUESTION 4

Environmental Topic:	**Pollution (land, soil, water and noise)**
NGO Forum Principle	**Application of the principle to the topic**
	We are all able to learn from each other.

1. Education is the right for all; we are all learners and educators.	Every individual should have knowledge about the environment and its problems and everyone must know how to keep the environment clean and healthy, free from pollution.
2. Environmental education is both individual and collective. It aims to develop local and global citizenship with respect for self-determination and the sovereignty of nations.	I will arrange a trip to a communal organisation (Department of Agriculture, Land Reform and Rural Development) for an interview about proper waste/littering management practices they use. I will divide the learners in 5 groups.
3. Environmental education should empower all peoples and promote opportunities for grassroots democratic change and participation. This means that communities must regain control of their own destiny.	I will include my learners in a community project such as a recycling project to increase the capacity of the community to empower them to make a change in their community.
4. Environmental education must be designed to enable people to manage conflicts in just and humane ways.	My class did a recycling project in the school where every learner had the opportunity to freely share their ideas/opinions about the recycling project. They used 5 bins and paint each bin according to the universal colours of recycling with the follow posters above each bin: Organic is Green, Glass is Yellow, Paper is White, Metal is Grey, Plastic is Blue and Hazard is Red. This school project helps the learners to implement this at home and in their community, they just used smaller bins at home, guesthouses, church etc. They all participate in order to keep the environment clean and healthy in a just and humane way. This helps the people to manage littering to avoid conflicts.
5. Environmental education must integrate knowledge, skills, values, attitudes and actions. It should convert every opportunity into an educational experience for sustainable societies.	The learners must be able to have the necessary knowledge about the environmental and its problems, skills to think about solutions to these problems and make decisions to solve the problem.

QUESTION 5

5.1 Principles for environmental learning

There are three principles that need to be considered to make sure that the environmental learning approach is effective.
The first principle refers to **knowledge** about environmental education. Knowledge is needed to study and solves environmental problems and to address environmental challenges we face daily in our society.
The second principle refers to the **development of skills.** We need certain skills in order to study and solve environmental problems and to address environmental challenges we face on a daily basis in our society.
The third principle refers to the affective domain that needs to be included such as positive **attitudes, values** (feelings of concern for the environment) and **commitments** (actions) in order to make sure our society is sustained.
Knowledge in environment education involves social and ecological systems that include planet earth as a finite system, its resources, the nature of ecosystems and their interdependence within the biosphere and it includes indigenous knowledge systems and the dependence of humans on environmental resources. Knowledge of political, social, economic and development issues and challenges they represent is needed to ensure s suitable future. These knowledge equipped people to study and solve environmental problems and how to address environmental challenges. Certain skills are needed such as problem solving skills and communication skills to communicate their viewpoints, findings and information, investigations or research skills to pool resources, negotiate a consensus and to take action. Values should also be acquired such as an appreciation of the resilience, fragility and beauty of the environment and the interdependence and importance of all life forms. Learners must have a personal acceptance of a sustainable lifestyle and a commitment to participate in order to make a change.

5.2 Environmental learning strategies or approaches

There are many learning strategies and we must make use of the more appropriate strategies for environmental learning because learning about the environment does not automatically leads to action. The learners must be actively involved and focused on the problems and challenges in the environment and they need to experience the fact that they can contribute to their environment through presented activities. This will influence their reality in their world.
There are four preferred strategies for environmental learning. The first strategy is **active learning** where the learners must be actively participating in the learning situation and not just learns about the environment. There must be opportunities to be critical and creative to make discoveries on their own. This strategy focuses on individual development, gaining of knowledge, solid understanding, skills, attitudes and values which will assist them to understand and face environmental challenges.
The second strategy is **authentic learning** where learners learn about real environmental threats and problems (pollution, waste, littering, global warming, depletion of natural resources, ozone

depletion etc.) and using/seeking real solutions (recycling, walking to school, use fluorescent light bulbs, solar panels, increase biodiversity etc.) to these problems in their environment. Learning consists of real-life activities taking place in real-world contexts. This is active, hands-on learning. Authentic learning activities gives the learner an understanding of the interaction of environmental, social and economic processes and coping skills with the difficult issues of sustainable development. The third strategy is **problem solving and decision making** to ensure the learning experience was meaningful. When learners investigate environmental problems on specific real problems at school for instance, this investigation can be very successful as long as learners are provided with a variety of tools in order to make a change. Guidance and support will also assist the learners to make an effort to solve real problems especially when adults don't have a solution. The learners who managed to find solutions to environmental problems have a sense of accomplishments, they feel good about themselves and they are actively involved and they display responsible environmental behaviour. Critical thinking let learners think critically on a higher dimension of thought and it let them requires a lot of information on a different perspectives associated with an environmental problem or risk it their critical engagement is meaningful. It also requires educators to have access to the same information to avoid or simplified interpretations of issues. **Critical thinking** is a key trait of an environmentally literate citizenry and the key objective of environmental education. Critical thinking includes content knowledge, procedural knowledge, the ability to use and control thinking skills, and a positive attitude when using the knowledge and thinking skills that are needed. It also develops logical reasoning, creative thinking and problem solving skills. Environmental education is an excellent mechanism for the development and use of critical thinking skills by giving them a real problem to examine critically and reflect on it.

Environmental learning has four dimensions (social-critical paradigms):

1. Construct – build upon prior knowledge, experiences, and ideas of learners.
2. Critique – investigation underlying values, assumptions, world views, morals etc. as they are part of the world around the learner and as they are part of the learner him/herself.
3. Emancipate – detecting, exposing and where possible, altering power distortions that impede communications and change.
4. Transform – changing, shaping, and influencing the world around them.

5.3 Learning styles of learners

Not all learners learn the best in the same way. Learners learn through either seeing, hearing or doing or a combination of these learning styles. Each learner learns differently. **Auditory learners** learn best through listening to verbal presentations and discussions about topics of environmental education. These learners interpret the underlying meanings of speech through listening to the educator's tone of voice, pitch, speed and other nuances. **Visual learners** learn best through seeing for instance visual presentations, displays, pictures, computer programmes, diagrams illustrated text books overhead projectors, videos, flipcharts and hand outs regarding environmental education. They look at the body language and facial expressions of the educator in order to fully understand the content of a presentation. They think in pictures. **Tactile (touch) and kinaesthetic (moving) learners** learns best through touching, moving around and doing things related to environmental education for instance outdoor learning activities where they pick up litter and dispose of it properly. They want to be actively involved in exploring the physical word.

5.4 Multiple intelligence in environmental education

People have different ways they demonstrate intellectual ability. There are eight different types of intelligences identified such as **visual/spatial intelligence** refers to learners who visualise their world and think in pictures in their mind to retrain information, they have a spatial skill to perceive and understand visual information. They are good with puzzles, reading, writing painting etc. **Verbal / linguistic intelligence** refers to learners with a special skill to understand and use words and language very good. Their auditory skills (hearing) are highly developed and they are good speakers. They are good with listening, writing, storytelling, explaining, teaching etc. **Logical/mathematical intelligence** refers to learners who have a special skill to use reason, logic and numbers, they have a tendency to be very curious about their surrounding environment and they are always trying to find answers to questions. Their thinking pattern is in logical and numerical patterns, they see the connections between the pieces of and they make sense of lots of information. **Bodily/kinaesthetic intelligence** refers to learners who can control their body movements and handle objects skilfully. They use body movement to express themselves, they are good balanced and their eye-hand coordination is good in sports and games. They remember and process information when they interact with the space around them and they express emotions through their body. They are good with dancing, sports, acting, making crafts, use hands to create or build etc. **Musical/rhythmic intelligence** refers to with a special skill to make music and enjoys music. They have a natural ability to think in sounds, rhythms and patters and they are sensitive to environmental sounds such as crickets, bells, dripping taps. They like activities like singing, whistling, can play a musical instrument; they can compose music, remember melodies and understand structure and rhythm of music. **Interpersonal intelligence** refers to learners with a special skil to understand and relate to other human beings.
They show empathy and try to see things from their point of view so that they can try to understand how that person thinks and feels. A lot of the times they can sense feelings, intentions and motivations and they are good motivators and manipulators. They will always try to maintain peace and encourage others to work together. They communicate openly verbally and non-verbally. They are good at listening, counselling, group work, building trust, peaceful conflict resolutions and have positive relationships with other people. **Naturalistic intelligence** refers to learners who have a good sensory skill which they used to notice and categorise things from nature and for self-reflect and they are aware of their inner state of being. They try to understand their inner feelings, dreams, relationships, strengths and weaknesses. They like to participate in activities where they can recognise their own strengths and weaknesses, they analyse themselves, they become aware of their inner feelings, desires and dreams, they evaluate their thinking patterns, they reasoning with themselves and understand their role in a relationship.

5.5 Assessment strategies/methods in environmental education

Educators must choose the strategies and methods they are going to use in their teaching contexts. The methods and criteria that are appropriate to environmental education include questioning (including tests, examinations and teaching by peers), discussions (group discussions, debates, stories, panel discussions, quest speakers, teaching by peers, oral reports), investigation and problem solving, demonstrations, cooperative group work, and experimental methods (including exploratory learning, excursions, laboratory activities and projects. These methods can be utilised for environmental education and some methods may be more suitable if certain criteria are

applied. Methods such as investigation and problem solving may be appropriate to make provision for full, active participation of all learners. Cooperative group activities will include all learners to take part. The methods must be applicable to the learner's needs and interests and it must relate to the learners prior knowledge. Environmental learning can take place by using the environment around the learners and almost any environmental problem can be taught across different learning areas. All the appropriate methods must follow requirements such as validity and significance, learnability, durability, viability, balance between superficiality and depth, usefulness and intrinsic interest but learner-centeredness, being activity based, relevance to learners, utilisation of the environment and cross-curricular application meet the needs of environmental education.

QUESTION 6

CAPS Phase: Grade 7	**Subject: Life Orientation**	**Environmental Topic: Pollution** **Sub-topic: What is littering and how can we make our world a save place?**
Term: 1		**Duration: 1 Lesson**
Lesson Aims: **Environmental skills:** Learners must acquire skills for identifying and solving environmental problems. **Knowledge:** of the environment and environmental challenges. **Let them understand:** - What littering is? - Who is responsible of littering? - The effects of littering on living organisms and in the environment. - Methods to reduce littering. - Recycling and how it contributes to the environment. - The importance of saving our environment.		**Learners must be able to:** - **Identify** areas on the school ground where litter is a problem. - **Identify** the cause of littering - **Communicate** about littering as an environmental problem (causes and effects). - **Problem-solving:** learners must be able to participate in a brainstorming session and offer ways to solve littering on the school ground. - **Make decisions using critical and creative thinking** by giving examples how to reduce waste/littering - **Hands-on involvement** to reduce littering and realise it is a daily responsibility starting with each individual and within a team approached. - **Work effectively with others as members of a team, group, organisation and community** by involving them in a community project by helping pick up litter in the local communal park. **Learners will be able to** explain what littering is. **Learners will be able to** explain what cause littering and who is responsible.

	Learners will be able to explain the effects of littering on people, animals and in the environment. (harm environment such as land, air, water and noise pollution, can start fires, can kill animals and effect the health of people) Learner will be able to provide methods to reduce littering. **Learners must be able to** explain recycling and how it contributes to the environment.
Attitudes: - Show respect and develop a positive behaviour towards the environment. - Responsibility toward the environment and the health of others. **Values:** - Show empathy/ feelings of concern to the environment - Be motivated to be actively involved in improving and protecting the environment. **Participation/Commitment** - They will learn to be actively involved working toward saving the environment and by finding solutions (together) to problems.	**Learners must be able to** pick up litter if they see it on the ground. **Learners must be able to** show responsibility to protect plants, animals and humans by not littering. **Learners must be able to** participate actively in a communal project picking up litter, working in groups. **Learners must be able to** reduce littering at home or any other place they visit. This positive attitude and behaviour of the learners encourages other people not to litter. **Learners must be able to** show universal values – responsible behaviour towards the environment by being an example to dispose litter in an appropriate manner and they must not dump garbage in vacant areas or throw litter on the ground or leave their sweet packing on the table. **Learners must be able to** demonstrate an understanding that problem solving does not exist in isolation. Learner must reduce littering and realise it is a daily responsibility starting with each individual and within a team approached.
Content The learners will explore the following learning content: **Storybooks of the Litter Bug** (A bug who litters find ways to help his community through recycling and throwing away trash in the correct bins with a friend.) **What is litter?** Litter is packaging, paper, soda cans, plastic soda or water bottles, juice or milk cartons, foam cups, newspapers, plastic sandwich and grocery bags, candy, cookie and gum wrappers, potato chip or corn chip bags and other materials that have been disposed of improperly. Garbage belongs in garbage cans, not on the ground!	

Who is responsible for littering?
Littering is always caused by people. It may be intentional litter by motorists discarding litter out of car windows, pedestrians dropping litter on the street or footpaths, or people on picnics and at other public space events.
Another source of litter may be unintentional. It may come from uncovered loads and can easily be blown out of trucks, cars and trailers. Household rubbish, commercial rubbish and uncontrolled building waste can become litter if not secured by a proper cover. The wind also carries rubbish to other places.
Learners go on a litter walk to see whether the can find litter on the school ground. Pick up litter around the school grounds and place in garbage bags.
Learners identify the areas on the school ground where litter was mostly found on the map provided and which type of litter was most common by using the type of litter sheet provided.

Teacher Activities	**Introduction:** Firstly I do my formative assessment. Then I read the Story of the Litter Bug out loud to the learners and give them a book as well to follow. (Cater here for auditory and visual learners) Ask questions**:** What is litter? What cause littering? How does litter affects the environment? I write these questions on the black board and their feedback. I will wait for their feedback and then discuss this content with the class. I present and discuss the posters of pollution free environment and pollution environment (land, air, water and noise). **Middle:** I divide the learners in 4 groups, each with a bag, colour marker, litter **sheet** and instruct them to go for a litter walk on the school grounds and mark the areas where the most litter is found, mark on the litter sheet what type of litter is found and pick up litter and throw it into the garbage bag. Back in the classroom I put out the recycling dustbins and I instruct the learners to sort the litter according to the universal colours for paper, class, plastic and metal. I provided a big poster of the universal colours for recycling on the board using the overhead projector to help the learners sort the litter. I will hand out information what can be recycled and

	how long the time it takes for garbage to decompose in the environment. After that I will ask the learners why it is important to protect the environment and wait for their feedback and discuss/explain this to them. I will hand out the information regarding the environmental learning topic. Then I will divide them in groups again and ask them "what can you do to protect the environment?" At this stage I will assess the learner to see if they work in groups and are actively involved with the discussions and feedback, if they understand the concepts etc. I wrote the examples of the learners how to protect the environment on the blackboard. I give them copies of the song "Here comes a litterbug and instruct/help them to practice the song. I also assigned 2 learners to give as a demonstration, the litterbug picks up the litter and dispose the litter in the bag that the neaterbug is holding. **Conclusions:** Hand out the short easy instructions and assist learners if necessary. Request learners to draw an environmental pollution free picture of their choice. After this lesson, I do my summative assessment. **NGO Forum principles used:** *1. Education is the right for all; we are all learners and educators.* After reading the story, the learners are aware about pollution as an environmental problem, they learned that it causes land, water, air and noise pollution. They learned that every person can make a difference to protect the world by picking up litter and disposed it correctly. They also learned why it is important to protect our environment for our future generation. *2. Environmental education is both individual and collective. It aims to develop local and global citizenship with respect for*

	self-determination and the sovereignty of nations. (The learners discussed the environmental problem (pollution) and its effects in a group setting, each individual learner provided an idea how to develop a community and country that respects the environment. They all work together in order to find solutions to the relevant problem in order to protect the environment.) **Values included:** Learners show empathy/ feelings of concern to the environment when they realised how litter effects the environment and they are motivated to be *actively involved in improving and protecting the environment by realising that each person can help* (Social values) to reduce littering and by disposing of litter in an appropriate manner (Universal values – learners show responsible behaviour towards the environment). They realised that they (humans) have an impact on the environment and that they give nature a reflection of their character (personal values). Universal values where the learners show **Skills mastered:** Identification skills – identify problem area and environmental problem. Communication skills – communicate about problem and affects. Problem-solving skills – provide ways to solve problem Decisions-making skills – make decisions to solve problem Critical thinking skills – use higher thinking to solve problem Creative thinking skills – provide creative ways to solve problem Personal and social skills - working together in groups. Study skills - they studied the different environmental issues and problems from different points of views to come up with a solution. Physical skills - they talked and write about what they've been taught and applied it correctly.
Learner Activities	**Introduction:**

	The learners listen to the story of the Litter Bug and answer my questions and ask me questions regarding the story if needed. They provide feedback on the environmental polluted poster and environmental pollution free poster. **Middle:** Cooperative group work: learners go on a litter walk to investigate where the most litter are found on the school ground. Pick up litter around the school grounds and place in garbage bags. Learners identify the areas on the school ground where litter was mostly found on the map provided and which type of litter was most common by using the type of litter sheet provided. Back in the classroom the learners sort the litter according to the universal recycling colours and dispose it correctly in the recycling bins and participate in the discussions regarding the time it takes for garbage to decompose in the environment. Whole class take the bins to the area in the school where the most litter was found. Learners give me feedback on my question “why is it important to protect our environment”. In groups the learners have a brain storming session on my next question “what can we do to protect our environment? Each learner needs to participate and discuss this with follow group members, they must find solutions to the problem in order to protect the world and provide me with an example what they can do. Each individual present his/her example orally. The learners learn the song “Here comes a litterbug” and one learner is the litterbug and the other learner is the neaterbug. The neaterbug holds the paper bag for the litterbug to dispose some of the litter (the litter they picked up, we hold some of it back for this demonstration) while everyone is singing the song. **Conclusions:**

	The learners write a short easy in their workbooks on the topic: *"I went for an outdoor trip to …….. and I saw……. "* and answer the questions underneath. They also draw a picture of pollution free environment and put it up against the wall in the hallway.
Resources:	- Copies of the map of the school ground. - Copies of the litter sheet - Assorted highlighters. - Environmental friendly bags for litter (to pick up litter) - Copies of the song "Here comes a Litterbug" - Storybooks of the Litter Bug - Green, yellow, blue and red recycling bins (was donated) - Hand wash disinfectant - Overhead projector - Workbooks - A4 White paper - Colouring pencils - Pres-tic - Blue pens - Environmental free Poster and an environmental polluted poster - Copies of the information sheet of the time it takes for garbage to decompose in the environment. - Copies of homework instructions - Copies of the information on the environmental learning topic.
Assessment: **Formative Assessment (Formal Classroom Assessment/School-based Assessment) (During the Project)** During the lesson I will monitor the learners learning to provide ongoing feedback that can be used to improve my teaching and by doing that, I improve their learning. This will help the learners to identify their strengths and weaknesses and target areas that need work and this will help me to recognise where learners are struggling and address these problems immediately. **What I will do:**	

Ask questions to try to find out what the learners already know and understand about the environment, pollution, water pollution, air pollution, soil pollution, ecosystems, littering.
"What is the environment"
Do you know what pollution is?"
What is litter?
What are the effects of litter?

Discussing a new concept: If there are learners who don't know or understand the concepts, I will explain to them. I will then ask them to submit one or two sentences using the words "environment, pollution and litter to monitor their understanding.

Summative Assessment

I will determine the overall achievement of learners and learning success at the end of the learning activity according to the following criteria:

Written products with rubric

1. An understanding of how litter/waste has impacted the environment.

Analyses the effect of littering
Describes the effects of littering
Lists the effects of littering

2. Provide appropriate examples of how litter/waste impacted the environment; provide some detail about that example.

One example
Two or more examples
Three or more examples

Oral communication with rubric

shows a comprehensive knowledge
shows a sound knowledge
shows a basic knowledge

Short vocabulary test

Peer evaluation

Correctly and independently uses
With occasional peer or teacher assistance, uses
With teacher guidance, attempts to use

LEVEL	Description of Competence	PERCENTAGE
7	**Outstanding Achievement**	80-90
6	**Meritorious achievement**	70-79
5	**Substantial Achievement**	60-69
4	**Adequate Achievement**	50-59

3	**Moderate Achievement**	40-49
2	**Elementary Achievement**	30-39
1	**Not Achievement**	1-29

Home Work	Learners have to tell a parent/caregiver about one effect of littering that they have discovered with one solution how to prevent it. The parent/caregiver must sign a document that this is completed. The learners will also receive a vocabulary of 10 words regarding environmental education with their definitions which they need to learn at home. An assessment will be done on this using a spelling test and their understanding of the words. (Test will be done written or orally, depending on the diverse needs of the learners) **Vocabulary:** Awareness Avoid Environment Litter Observe Pollution Prevent Solution Recycle Respect

Teacher Reflection	**Does this lesson:**	**Yes**	**No**
This lesson reached the goal, the learners is aware and understand that we must protect our environment, they are aware that they must dispose litter/waste appropriately and they know the effects of litter/waste on the environment. They know what they can do to help the environment by not to litter and pick litter up to protect animals and plants and so that they can have clean water to drink. They are committed and they also do this at home and influence the community by their positive behaviour towards the environment. The realise this is an ongoing approach and team approach to save and protect their world together.	Meet the standards?	✓	
	Engage all learners	✓	
	Focus on essential understanding?	✓	
	Encourage higher-level thinking?	✓	
	Teach literacy and reinforce basic skills?	✓	
	Allow all learners to succeed?	✓	
	Use rubrics as an assessment tool with my learners	✓	

	Use clear, precise assessments?	✓	

RESULTS

Total = 99 / 100 (99%)