

6. Bio-Diversity

Look at the picture and answer the questions that follow.





- 1. What do you see in the first picture? Do you like it? If not, why?
- 2. How is the second picture different from the first? Do you feel good about it? Give reasons for your view.

Oral Discourse: Debate - "Human beings can not live on this earth without causing threat to the nature."



Environment

(Interview with Wangari Maathai, Environmental Activist and Nobel Prize winner)

Wangari Maathai started the Green Belt Movement and also fought for equal rights for women in Africa. She is the first African woman to win the Nobel Peace Prize. Read

the excerpts from her interview with Nippon Hoso Kyokai (NHK) Radio (Japan).

NHK Radio: How did you become aware of the environment?

Wangari Maathai: From the time we started, we were trying to respond to the basic needs of people in the rural areas; and people were asking for clean drinking water, for food, for energy (which is mostly



firewood), for building material, for fodder for the animals. And all these come from the land. So we knew that what the people in the rural areas were asking for had to do with the environment. They did not have those things because the environment was degraded. So, from the very beginning we understood that we have to rehabilitate the environment.

The forested mountains were the source of water and the source of rain, so when you deforest, you cause a shortage of water and a change of rainfall patterns and therefore people are not able to get food and water. Therefore, in order for them to have good environment that can sustain their livelihoods, it is important to have a government that accounts to them, that protects them, that protects their interests, that is concerned about their lives.

NHK Radio: How is peace connected to a good environment?

W M: Many wars that are fought in the world are fought over natural resources. Some wars are fought because the environment is so degraded that it is not able to support communities and so they fight over the little that is left. Others are fought because some people want to take a lot of the resources, to control them, and to keep many other people out.



Now whether this happens at the national level or at the regional level, or even at the global level, sooner or later there is discontent; and when that discontent is strong enough, there is conflict. So good management of the natural resources, equitable distribution of these resources, is important for peace. At the same time, good management of the natural resources is not possible if you do not have democratic space, respect for human beings, respect for human rights, giving other people dignity.

That is why the three themes are related, like the African stool, with three legs and the basin on which you sit. The three legs: one leg is peace, the other leg is good governance, the third leg is sustainable management of resources. When you have those three legs, now you can put the basin, which is development. And if you try to balance that stool without those three, it won't happen.

We have not shared our resources equitably. We have allowed some people, especially those in power, to acquire a lot at the expense of the majority. And we have also engaged in conflict.

NHK Radio: What was the environment like when you were young, and how did you go about saving it?

W M.: When I was a child, which is almost more than fifty years ago, the environment was very pristine, very beautiful, and very green. We were a British colony, and the British government at that time started to clear cut the indigenous forests in our forested mountains because they wanted to establish commercial plantations of exotic species of trees such as

the pines from the northern hemisphere and the eucalyptus from Australia. These trees are very nice, they grow tall, and they grow very fast, but as they grow they destroy all the local biological diversity. All the flora and fauna disappeared. So although we were getting commercial timber for the growing timber industry, we also destroyed our local flora and fauna.

As a result, these forests, which were the water towers, were no longer able to contain the water, so when the rains fell the water ran downstream and ended up in the lakes and oceans instead of going down into the underground reservoir so that it could come back to us in the form of rivers. One thing we noted is that not only



did the rain patterns change, became less, but also the rivers started drying up. We lost our local biological diversity. So that's a lot of damage to our environment.

That is why in 1975, at the very first United Nations Conference for Women in Mexico, many of the women were saying, "We need food, we need water, we need clean drinking water, we need fodder for our animals." And I was wondering, what has happened? These are things that were there twenty years ago when I was a child. The environment had changed; and that's when I started this campaign to restore the vegetation and to restore the land and to rehabilitate the forests.

NHK Radio: What happened when you started working with the women?



W M.: Well, the first time when I told them, "Let us plant trees", the women said they did not know how to plant trees. So I asked the foresters to come and teach them, but they were very complicated-they are professionals. It became very complicated for ordinary illiterate women so I told the women, "We shall use our



common sense, and just do what we do with other seeds." Women work on the farms. They're the ones who plant. They're the ones who cultivate. They're the ones who produce food, so I told them that seeds of trees are like any other seeds. So if they were to treat these tree seeds the same way they treat other seeds of food crops, there is no difference. I told them to look for old broken pots even and put

seeds there. They will germinate and they will know these are the seedlings from the seeds they planted and we gave them plastic bags to be able to put those seedlings and to nurture them and when they were about half a meter long then they could go and transplant them on their farms.

In the beginning it was difficult, but they soon gained confidence and they became very competent foresters. So I called them "Foresters without Diplomas".

NHK Radio: Why do you think they responded so well to your message?

W M: It was a need. When the women said they needed firewood and building material, we responded to that need. Plant trees; then you will have trees for firewood. In the tropics, trees grow very fast. In five to ten years these trees serve as firewood, as building materials.

Once we had planted those trees, we saw the need for them to understand why we have to have good governance; so it became important to give them civic education so that they could understand how we govern ourselves, why we govern ourselves the way we govern ourselves, why we are managing our environment the way we are managing it. Because we were dealing with the environment, we gave them education both in civics and also in environment. That made them understand clearly why they should take up the responsibility of protecting their environment-that it was not the responsibility of the government or the responsibility of somebody else to come and rehabilitate their environment on their own land. It's them; it's their responsibility.

NHK Radio: What transformations did you see?

W M: One of the bigger transformations that I saw was that ability of an ordinary, illiterate woman to get to understand and to be able to plant trees that in five or ten years became big trees and she was able to cut them and be able to give herself energy; to be able to sell those trees and give herself an income; to be able to feel confident that she had done something for herself. That sense of pride, sense of dignity that they are not begging, that they are doing things for themselves was very empowering. That transformation was very powerful.

The other is the transformation of the landscape. Places where there was dust, there are no more dust. There are trees, even birds and rabbits. They come back and they make the environment very beautiful. There is a shade and sometimes even dry springs come back because the water is not running, the water is going into the ground. Very profound transformation.

And the other transformation that I saw was the willingness of the people to fight for their rights; to decide that they have a right to a good clean environment; to decide that they will fight for their forests, they will protect their forests, and they will not allow corrupt leaders to take their public land.

NHK Radio: How do you think you can influence the rest of Africa?

W M: Our efforts will inspire other people to stop wasting their resources and their youth in wars and instead engage in creating a peaceful environment, more peaceful states.

I'm very happy about the fact that now in Africa you see new efforts of ensuring that Africans engage in dialogue, that they invest in peaceful negotiations for conflicts, that we manage our environment. We must restore our environment and try to ensure that we do not fight, because we are allowing the environment, especially the land, to be degraded; and then we fight over agricultural land and grazing land. I see a lot of hope in what is happening in Somalia, what is happening in the Sudan, what is happening in West Africa. I see a lot of African leaders encouraging each other to engage in dialogue.

NHK Radio: What is the one thing we can do?

W M: For me, my greatest activity is to plant a tree. I think that a tree is a wonderful symbol for the environment and when we plant a tree we plant hope. We plant the future for ourselves, for our children, for the birds. We plant something that will last, long after we are gone.

Source: www.gbmna.com/a.php?id=103



Green Belt Movement (n): a movement to protect environment

fodder (n) : food for farm animals

forested (adj) : covered with forests

pristine (adj) : fresh or clean

indigenous (adj) : native

biological diversity (n): the variety of plants and animals in a particular place

exotic species (n) : unusual plants

Comprehension

I. Answer the following questions.

- 1. How are people's basic needs connected with the environment?
- 2. Wangari Maathai has described the environment of her childhood in the interview. Is the environment of her childhood different from the environment you live in? If yes, in what ways?
- 3. According to Maathai, how are women responsible for the protection of the environment?
- 4. What is the specific message of Wangari Maathai?
- 5. List the transformations that Wangari Maathai was able to bring about over the years. Which one of them is the biggest in your opinion?
- 6. Maathai said, "When we plant a tree we plant hope." What does she mean by this?
- 7. Wangari Maathai in her interview with NHK Radio often repeats phrases/sentences probably to emphasize her point.

For example: referring to women-groups she says:

They're the ones who plant.

They're the ones who cultivate.

They're the ones who produce food.

Pick out from the text (of her interview) such repetitions and write them down and find out what she is emphasizing in each context.

II. Pick out the correct choice in each of the following:

1. We have allowed some people, especially those in power, to acquire a lot at the expense of the majority.

The underlined phrase means:

- a) with a loss or damage to the majority
- b) by spending money on the majority
- 2. What was the implication of the growth of exotic trees, such as the pines and the eucalyptus for the environment?
 - a) It increases timber business.
 - b) Forests were not able to contain water.
- 3. When women started working with Maathai, they learnt
 - a) to become very competent foresters.
 - b) to grow and transplant seedlings.
- 4. Maathai's efforts will inspire the people
 - a) to stop wasting their resources.
 - b) to use their resources miserly.



I. Replace the underlined words in the following sentences with the words from the box that have the same meaning.

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transplanted, vegetation, exotic, negotiation, restore, equal rights, sustain, degrades, equitably, rehabilitation
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- 1. The government is trying to bring back normalcy in the riot-hit areas of the city.
- 2. Wangari Maathai fought for the same privileges for men and women in Africa.
- 3. I cannot hold my attention on any subject for a long time.
- 4. The poster is offensive and disrespects women.
- 5. Some people argue that the wealth in this world should be distributed fairly and reasonably among all.
- 6. After certain amount of growth the seedlings have to be taken out and shifted elsewhere for further growth.
- 7. She travels to all kinds of exciting locations all over the world.
- 8. The Tirumala hills are covered by lush green plants.
- 9. The judge advised the disputing parties to settle through discussion.
- 10. The alcohol addict has to be put in a recovery centre for becoming a normal person.

II. Read the following sentence and notice the underlined words.

Wangari Maathai is an environmentalist and has a lot of interest in ecology.

In the above sentence 'environmentalist' stands for 'a person who is concerned about the natural environment and wants to improve and protect it'. 'Ecology' stands for 'the study of relation of animals and plants to their surroundings. 'Both the words stand for many words. So they are called 'one-word substitutes'.

What are the following persons called?

- 1. A person who studies the human race, especially of its origins.
- 2. A person who studies the remains of buildings and objects found in the ground.
- 3. A person who studies birds scientifically.
- 4. A doctor who studies and treats heart diseases.
- 5. A scientist who studies the mind of a person.
- 6. A person who studies languages.

III. Fill in the blanks with the appropriate forms of the underlined words.

1.	It is everyone's duty to keep the environs clean, with the co-operation of the citizens the government can protect the
2.	The government of the day should show its capability by providing good to people.
3.	Wangari Maathai was successful in transforming women of Africa and themade her happy.
4.	We must restore our environment and always try to ensure its
5.	Natural resources in this world can be sustained if only there is management of them.
6.	Wangari Maathai is an environmental activist. Herled her to win Nobel Peace Prize.
7.	We were trying to respond to the basic needs of the people in the rural areas. Ourwas well received by them.
8.	In a developed country, the is balanced.
IV. 1	Cick (✓) the meaning of the word underlined as suggested in the context.
1.	'For me, my greatest activity is to plant a tree,' said Wangari Maathai. a) a living thing with stem, roots, branches and leaves b) put seeds in the ground to grow
2.	My uncle wants to build a chemical plant in Hyderabad.

a) a product

b) a factory

- 3. Applicants must have a clean driving licence.
 - a) complete
- b) never done anything wrong
- 4. He thinks that he should either resign or come clean.
 - a) free from dirt
- b) as not corrupt
- 5. Rest your hand on my shoulder.
 - a) the remaining part b) support
- 6. All our hopes rest on you.
 - a) support
- b) depend
- 7. A publisher's note says: all rights reserved.
 - a) authority
- b) interests
- 8. I want this parcel to be sent right away.
 - a) immediately
- b) completely
- 9. He knew this was his last hope of winning.
 - a) final
- b) most recent
- 10. The last thing she needed was more and more work.
 - a) the only remaining part
- b) most recent

Grammar

I. Non-finite clauses

In English we have two types of clauses: Finite clauses and non-finite clauses.

Look at the following examples:

- 1. Wangari Maathai led the movement. She won the Nobel Prize.
- 2. Leading the movement, Wangari Maathai won the Nobel Prize.

In the example 1, there are two sentences. Their is a verb in each sentence and each verb has tense [a tense marker]. We can identify the tense of the verbs by looking at them, both of them are in past tense since they are written in ${}^{\circ}V_{2}$. ['led' and 'won']. These are called 'finite verbs' as they have 'tense'.

Where as in example 2, there are two clauses: 'Leading the movement' and 'Wangari Maathai' won the Nobel Prize. The verb in the first class has no tense while the won in the second clause has tense [past tense].

The verb with tense is known as 'finite verb' and the clause that has a finite verb is known as 'finite clause'. In the same way, the verb that has 'no' tense is known as non-finite verb [leading] and the clause is called 'non-finite clause'.

Non-finite clause depends on the finite clause for its tense.

Leading the movement, Wangari Maathai won the Nobel Prize

↓ ↓
Non-finite clause Finite clause

We should note that a non-finite clause has no subject, and we only can decide the tense of a non-finite clause from the finite clause.

A. Underline the non-finite clauses in the following sentences.

- 1. Born in London, he became the citizen of U.K.
- 2. Having done his homework, he went out to play.
- 3. Recognized by his boss, he got an appreciation letter.
- 4. Encouraged by his father, Ravi got distinction in his final examination.
- 5. With the tree grown tall, we get more shade.
- 6. We left the room and went home to search for the books.
- 7. Do we have the money to buy that car?
- 8. We were not able to get away until now.
- 9. Having read the book, I returned it to the library.
- 10. Jumping on his horse, the farmer rode to the market.
- B. Observe how the following sentences have been rewritten to include nonfinite clauses.
- 1. Vincent Van Gogh, who was born in Holland in 1853, is one of the world's most famous painters.

Born in Holland in 1853, Vincent Van Gogh is one of the world's famous painters.

2. Although his talent was unrecognized throughout his life, it was much appreciated after his death.

Although unrecognized throughout his life, his talent was much appreciated after his death.

3. After he had failed in every career he had attempted, Van Gogh first turned to art to express his strong religious feelings.

Having failed in every career he had attempted, Van Gogh first turned to art to express his strong feelings.

Rewrite the following sentences to include non-finite clauses.

- 1. After he had decided to become a painter, in about 1880, he started to paint studies of peasants and miners.
- 2. During the next few years, which are known as his 'Dutch period', he produced paintings with rather dark greenish-brown colours.
- 3. In 1886, when he went to Paris to visit his brother Theo, he was immediately attracted to the Impressionist work he saw there. He decided to stay in Paris and continued his painting there.
- 4. He was encouraged by Pissaro to use more colour in his pictures and his subsequent paintings were bright and immensely colourful.
- 5. After Van Gogh had moved to Arles in the south of France, in 1888, he worked frantically.
- 6. This frenzied activity, which was interrupted by bouts of deep depression and despair, produced the majority of his most famous paintings.
- 7. One of these, which is called Self Portrait with Bandaged Ear, shows Van Gogh. He was wearing a bandage after he had cut off his ear. A year later, in 1890, he committed suicide.
- 8. A lot is known about Van Gogh's life and his feelings because of the hundreds of letters, which were written by him to his brother Theo and others.
- 9. His brother always encouraged him in his work because he believed in Van Gogh's genius. He was the person closest to Van Gogh.

II. Reported speech

Apart from the ground rules that are laid down for reporting in traditional grammar books, there are certain other principles that are to be followed to make the speech appealing.

Suppose you want to tell somebody what Ram said. There are two ways of doing this:

You can repeat Ram's words (direct speech).

Ram said, 'I am feeling ill.'

Or you can use reported speech:

Ram said that he was feeling ill.

It is not always necessary to change the verb in reported speech. If you report something and the situation hasn't changed, you need not change the verb to the past:

Direct: Neelima said, 'My new job is very interesting.'

Reported: Neelima said that her new job is very interesting.

(The situation hasn't changed. Her job is still interesting.)

Direct : Ravi said, 'I want to go to New York next year.'

Reported: Ravi said that he **wants** to go to New York next year.

(Ravi still wants to go to New York next year.)

You can also change the verb to the past:

Neelima said that her new job was very interesting.

Ravi said that he wanted to go to New York the following year.

The past simple (did/saw/knew etc.) can usually remain the same in reported speech, or you can change it into past perfect (had done/had seen/had known etc.):

Direct : Ravi said: 'I woke up feeling ill, so I didn't go to work."

Reported: Ravi said (that) he woke up feeling ill, so he didn't go to work.

or Ravi said (that) he had woken up feeling ill, so he hadn't

gone to work.

Look at the following conversation and notice how it is reported.

NHK Radio : How is peace connected to a good environment?

Wangari Maathai : Many wars that are fought in the world are fought over natural

resources. Some wars are fought because the environment is so degraded that it is not able to support communities and so they fight over the little that is left. Others are fought because some people want to take a lot of the resources, to control them, and

to keep many other people out.

Reported speech of the above conversation:

NHK Radio asked Wangari Maathai how peace was connected to a good environment.

She answered that many wars that were fought in the world were fought over natural resources. Some wars were fought because the environment was so degraded that it was not able to support communities and so they fought over the little that was left. Others were fought because some people wanted to take a lot of the resources, to control them, and to keep many other people out.

A. Write the following in Reported Speech:

NHK Radio	:	what is the one thing we can do?
Wangari Maathai	:	For me, my greatest activity is to plant a tree. I think that a tree is a
		wonderful symbol for the environment and when we plant a tree we
	.	plant hope. We plant the future for ourselves, for our children, for the
		birds. We plant something that will last, long after we are gone.

B. Report the following dialogue:

Man : I'm doing a survey on shopping habits.

Woman : OK. As long as it doesn't take long.

Man : How often do you eat hamburgers?

Woman : Never. I'm a vegetarian. I don't eat any animal products.

Man : Right! Can I just ask you a personal question? Are you wearing leather

shoes?

Woman : Yes, I am.

Man : Don't you think that's rather hypocritical?

Woman : No, not really.

Man : Oh, that's amusing.

Writing

You have read the interview with Wangari Maathai. You know how and what type of questions have been asked by the interviewer. Imagine that you have decided to interview someone concerned with environment. You may include the following:

- 1. issues relating to the environment
- 2. the causes
- 3. actions that could be taken to save the environment

Write an imaginary interview.



Or will the Dreamer Wake?

Out in the East the jungle listens

The tigress, plaintive, growls in pain,

The great trees hear her breathing, shaking
Inside her still, the new lives wait,

These cubs could be the last ones ever

To freely live and roam and mate.

Our grandchild knows the tiger never

Or will the dreamer wake?



Far in the North the white bear snuffles

Down in her lair the gleaming snow

She waits for all the life she's making

Outside the crashing glaciers grow.

These cubs could be the last cubs ever

To freely live and roam and mate.

Our grandchild knows the white bear never

Or will the dreamer wake?



There in the West the song thrush warbles

She weaves her nest to hold her clutch

A long wait now to find a partner

The eggs are laid, there are not much.

These chicks could be the last ones ever

The last to fly and sing and mate.

Our grandchild knows the song thrush never

Or will the dreamer wake?

Deep in Ocean South the whale swims

Her song of birthing fills the seas

Thousands of creatures wait the moment

The solemn birth that they will see.

This child could sing the final whale song

The last to make the oceans shake.

Our grandchild never hears its mystery

Or will the dreamer wake?



Here in the centre, four directions gather

The path ahead leads up or down

Is this our last bright new world birthing?

Is this our waving as we drown?

This could be our last true moment

Knowing the truth, our choices make.

Our grandchild asks "That was the moment!

And did the dreamer wake?"

by Medora Chevalier

About the author

Medora Chevalier is a 21st century poet. She is a well-known writer of present day. She writes about contemporary themes. In this poem - Or will the Dreamer Wake? she writes about how the animals would become extinct if they are not protected.



plaintive (adj) : sad

snuffle (v) : to breathe noisily

gleaming (adj) : shining softly

glacier (n) : a large mass of ice which usually moves slowly down a

mountain

warbles (v) : to sing with a high continuous but quickly changing sound

birth fills (n): the process of giving birth to a baby

solemn (adj) : very serious and not happy



Answer the following questions.

- 1. Why does the poet say that these cubs could be the last ones ever to freely live and to roam and mate?
- 2. 'She waits for all the life she's making'. What does the poet convey through this line?
- 3. Why does the thrush weave her nest?

- 4. 'The child could sing the final whale song,' says the poet. Why does she say so?
- 5. The poet says 'This could be our last true moment' (last stanza). Is it true? In what way(s)?
- 6. What do you think the poem is about?
- 7. What does the grandchild in this poem symbolize?
- 8. Who is the dreamer here? Who is being referred to?
- 9. What according to you is the poem 'Or Will the Dreamer Wake' about? Justify your answer quoting lines from the poem.

Listening

Listen to the talk by an environmentalist on saving the trees and tick (\checkmark) the correct options that will complete the statements.

1.	The Himalayas are affected by
	a) environmental pollution b) melting of snow
2.	Himalayas are protected
	a) by hugging trees b) by stopping deforestation
3.	The name of the movement that started in 1970s and 1980s is
	a) the resistance to the destruction of forests
	b) Chipko movement
4.	The person who started the movement is
	a) Sunderlal Bahuguna b) Mahatma Gandhi
5.	Chipko means
	a) to embrace b) putting the bodies in the way of the contractors' axes.



Read the following essay and fill the columns in the table given after it with the correct information.

Pollution in India

Pollution in India is very high and thus it is one of the most polluted countries in the world. The reasons for high pollution in India can be attributed to the fact that it is the largest emitter of carbon dioxide. Coal powered plants and increased number of vehicles on the roads are also increasing pollution. With the economy of India growing, pollution in India is also growing.

Air, water, environment, sound and soil can all be contaminated. Air contamination leads to air pollution. Similarly water pollution, environment pollution, sound pollution and soil pollution are caused due to the pollutants in them. Each of these pollutions will affect the people in their own ways.

Air pollution: If the level of pollutants in the air is in such quantities that are injurious to human, animal and plant life then we can say air pollution has taken place. Air pollution is caused due to a variety of reasons like increased number of vehicles, smoke from burning fuels and factories. Industrialization and modernization are to be blamed for the present situation of air pollution. Industries such as thermal power plants, cement, steel, refineries, petrochemicals and



mines emit chemical pollutants into the air causing air pollution. The air pollution is causing reduction of ozone layer which is important to protect earth from ultra violet rays that come from the sun.



Water Pollution: Water is being contaminated by various foreign matters. Water is thus losing its quality. Water is polluted in various ways. It can be polluted by industrial waste, agricultural waste, and landfills. Nearly 80% of wastages from cities and towns in India is diverted to rivers. In this way rivers are getting polluted and water is becoming unfit for

usage by human beings. Aquatic animals are also dying due to this pollution. Sewerage water is also directed into the rivers which cause development of various bacteria in the water making them not even suitable for bathing.

Noise pollution: Noise pollution is mainly caused by transportation and construction system. Noise pollution not only causes damage to the environment but shows negative effect on human health. Human beings who are exposed to noise pollution will develop high BP,stress, hearing loss, sleep disturbances and aggression. Using noise barriers, driving the vehicles slowly, using special



tyres etc can help lower sound pollution. The problem of noise pollution should be paid more attention. Though noise pollution is a major issue, no laws are existing in many cities of the world to control it.

Noise pollution in seas and oceans is also increasing due to ship traffic and oil drilling. This is affecting the hearing sense of animals.

Soil pollution: Soil is being polluted by pesticides, oil and fuel dumping, landfill wastes, industrial wastes etc. Chemical wastes from factories are being directly dumped on the soil and it is contaminating the soil. Increasing urbanization, decrease in agricultural lands, increase in domestic wastage, agricultural activities, industrial activities are all contributing



to soil pollution in India. Plastic factories, chemical plants, oil refineries, animal farms, coal fired power plants, nuclear waste, disposal activities are the main sources of soil pollution. Effects of soil pollution are dangerous. They may cause acid rains which can kill trees and other plants. It disrupts the balance of nature. Soil pollution is also dangerous to wild life. Pesticides used more than required can damage the crops and poison birds, animals and fishes.

Sl.No	Type of pollution	Causes of pollution	Sources of pollution	Damages caused by pollution	Possible solutions or remedies



A Tale of Three Villages

1. Koko Village, Nigeria



Mr. Sunday Nana, his wife and four small children live in Koko Village, Nigeria. The village is like any other African village-picturesque, colourful and noisy. The Nana family's house too, is the same as all the other houses in the village, with mud walls and a rusting corrugated iron roof, and with children and chickens sharing the compound.

There is one difference,

however. Outside Mr. Nana's front are three large empty metal drums, the bright red paint now flaking away, but the skull and crossbones symbol clearly visible on each. And in a clearing 200m away from the village, next to a stream that the villagers get their drinking water from, is an enormous pyramid of identical drums, reaching to the sky. Some of them are badly corroded, their slimy contents of various colours - grey, dark green, bright orange, etc. - leaking out, down, on to the baked African earth and into the stream. Some have fallen down and rolled - or been rolled by playful children - into the bush. Some are smoking in the midday heat. Some are swelling, as if their contents are bursting to get out. Some have already burst.

"They came on a Wednesday," said Sunday, "Many, many big lorries. They took all day unloading them. No-one told us what was in them. They gave the Chief a brown paper bag-I saw him smiling as the lorries drove away. This was five years ago. Then three months ago, one of the brightest boys in the village - Thomas Agonyo - started university in Lagos. He came home one weekend with a new Chemistry book, and spent all day looking at the drums and writing things down and talking to himself and shaking his head. We all thought he had gone mad. Then he called a meeting of the village and told us that the drums contained

poisonous chemicals. He said they had come from Italy. But I don't know where that is. Is it in Europe?"

Mr. Sunday Nana stopped, frowning, a troubled look on his face, "In the last five years, 13 people have died in this village, my own elder brother one of them. They have been in pain, terrible pain. We have never seen deaths like that before. Lots of our children are sick. We have asked the Government to take the drums away, but they do nothing. We have written to Italy, but they do nothing. The Chief says we should move our houses to another place. But we have no money to buy land. We have no choice. We have to stay here. "And they" ----- pointing to the mountain of death in the clearing - "are our neighbours."

Comprehension

I. Answer the following questions.

- 1. Why were the large empty drums placed outside Mr. Nana's house?
- 2. What harm can the pyramid of identical drums cause to the villagers?
- 3. Why was the Chief smiling as the lorries drove away?
- 4. Was Thomas Agonyo correct in his findings? Justify your opinion.
- 5. Why didn't the people move from their place?
- 6. There is a repetition of sentences with 'some' in the passage. Read the passage again and write down the sentences and the function of 'some' in each one of them. Do you find any other repetitions in the passage? If yes, mention it.

II. Choose the correct answer.

1.	Nana's house is
	a) picturesque, colourful and noisy.
	b) with mud walls and a rusting corrugated iron roof.
2.	is visible on the empty metal drums.
	a) bright red paint flaking away
	b) skull and crossbones symbol

- 3. The important conclusion Thomas Agonyo gave is that
 - a) the drums had come from Italy.
 - b) the drums contained poisonous chemicals.

III.Write the adjectives or adjective phrases that describe the happy and gloomy situations in the village.

Grammar

Quantifiers as the name implies are a type of determiners which denote imprecise quantity. They differ from numbers or numerals which indicate precise quantity.

Example:

I've got **some** apples in my basket and **some** water in my bottle.

I haven't got any apples in my basket, nor any water in my bottle.

Generally quantifiers are used before nouns.

Some, any, all, no, no one, both, each, every, several are some of the quantifiers.

"Some" is usually thought of as the positive counterpart to "any" in many circumstances.

"Any" can be used before countable and uncountable nouns usually in questions and negative sentences.

Example:

- 1. Are you bringing **any** friends with you?
- 2. I am bringing **some** friends with me.

Quantifiers come before nouns. Some of the quantifiers you find in the text are: some, any, no. You also find numerals. Pick out the nouns along with quantifiers and numerals and write them down and analyze the meaning they convey.

Fill in the blanks appropriately with the following quantifiers: no, any, all, some, each, several and every.

1.		ordinary person is bothered ab	oout climatic changes. If	we talk
	of	changes, people look at us as if v	we don't have	work. In
	fact, it is	such a grave problem that	person has to thir	ık about
		scientists feel alarmed because the	ozone layer is depleting. In	addition
	·	people believe that the global war	rming is creating climatic p	problems
	But	single individual shows	concern for it.	

2.		meteor	ologis	ts pre	edict th	at the v	orld w	vill get war	rm betwee	en 2 to 4
	degrees	Celsius	by	the	year	2030.	The	scientis	ts belie	ve that
		year			polar id	ce will n	nelt and	l cause rain	ıfall, incre	ase in the
	sea level an	nd also ten	nperati	ure w	ill be af	fected		peop	le disagre	e with the
	theory th	at the	humai	n ac	tivity	is hav	ing a	n effect	on the	world's
	climate		sci	entis	ts need	d to mo	nitor t	he Earth's	s atmosp	here and
		human	being	s need	d to care	e for the	air, wat	ter and plar	nt life that	influence
	world's wea	ather.								
3.	People who	o disagree	e with	the th	neory tl	nat there	is a di	irect relation	onship bet	ween the
	human activ	vity and cli	imate b	elievo	e that th	e world o	limate	has gone th	rough	
	changes sin	nce the ear	th and	its at	mosphe	ere first f	ormed.	So for		argument
	there is a	counter a	argum	ent		i	ndivid	ual differs	with the	other in
		way o	r the o	ther					▼	

2. Ponnimanthuri Village, India

"I can remember the time," she said wistfully, "when all the fields around this village were green and the harvests good". Her outstretched arm described a complete circle as she stood in the morning sun. "Then they built those monsters, those......" Her voice spluttered in anger as she shook her fist at a collection of ominous-looking black buildings on the horizon, covered in a low-lying shroud of thick



smoke. "They said that factories need leather to make shoes, handbags and clothes. They said our menfolk would get jobs. They said we would all become rich."

We stood silent, each thinking our own thoughts. Yes, they told you all that. But there is so much they didn't tell you. They didn't tell you that to change animal skins into leather - which they call tanning - uses as many as 250 different chemicals, including heavy metals such as cadmium, arsenic and chromium. They didn't tell you that these chemicals are discharged into the environment from those chimney stacks and fall to earth for miles around, polluting the earth below. They didn't tell you that this would poison your fields, so that nothing will grow.



"They didn't tell us that the chemicals would be dumped in open fields and into our rivers," sighed Vijayasama. We had been thinking the same thoughts. "They didn't tell us that our women would have to walk ten kilometres every day. They didn't tell us that we would get ulcer and sores on our bodies. They didn't tell us..." Her voice trailed off. There is so much they didn't tell you, I thought.

"We don't buy leather shoes or leather handbags or leather clothes," she said.



outstretched (v) : pulled out to full length

trailed off (phr. verb) : became gradually quieter and then stopped

I. Answer the following questions.

- 1. The people in this village were affected by chemical factories. Where, in your opinion, should the factories be built? Why?
- 2. If it is necessary to build factories near the villages, what precautions should be taken to keep the villagers safe?
- 3. The narrator said at the end, "There is so much they didn't tell you, I thought"-what was that so much that was not told, according to you?



Write the following sentences in reported speech.

- 1. "I can remember the time." she said wistfully, "when all the fields around this village were green and the harvests good."
- 2. "They said that factories need leather to make shoes, handbags and clothes. They said our men folk would get jobs. They said we would all become rich."

3. Vorobyov Village, Ukraine (formerly USSR)



"It happened on April the 26th 1986. I remember the date because it was my mother's birthday. We heard the explosion early in the morning. We didn't worry, because there had been explosions before from Chernobyl. But this one was bigger. Everyone stopped what they were doing and listened. Then we ran out into the garden. We could see a cloud of white smoke coming from the nuclear reactor." Natasha Revenko wiped her hands nervously on her apron. Tears came to the corners of her eyes, and slid slowly down her pinched, pale cheeks.

"It was a Saturday," she went on, still wiping her hands on her apron. "It was a lovely warm day, and the children played outside all weekend. Even when the dust began to fall, they still played outside. They picked up handfuls of it and threw it at each other, laughing. It was Wednesday before the loudspeaker van came to the village, telling us to keep our children indoors and not to touch the radioactive dust. They also told us to wash down our houses and roads with water. A week later the children began to vomit.



Their hair fell out. They couldn't eat. They grew so thin, and sores appeared all over their little bodies. Two weeks after that, all three died - all three on the same day." She broke down now and cried quietly, as she had done so many times before. "They're buried over there." She pointed to the church graveyard. "Lots of village children are. And adults."

I touched her gently on the shoulder, leaving her to her bitter-sweet memories, and walked on through the silence. It was a ghost town. No one lived there anymore. They had either died or been forcibly evacuated. The fields were barren. Nothing grew. Nothing ever would again. There was no bird-song. No rabbit peered at me. No cow endlessly chewed. No horse neighed.

Natasha caught me up as we boarded the bus marked MOSCOW. "Thank you for coming with me," She said. "I wanted to see the graves and the house again, before I die."



apron (n) : a piece of clothing that covers the front part of your

clothes and is tied around your waist

radioactive dust (n): the dust that comes out of a radioactive reaction

Answer the following questions.

- 1. What measures should the government have taken when the nuclear reactor was installed beside the village?
- 2. What havoc can radioactive dust cause?
- 3. Pick out the words/expressions/images that describe the tragedy caused by the radioactive dust.
- 4. What is the common theme that runs through the assorted narratives presented under the title 'A Tale of Three Villages'? Substantiate your answer with evidences from the three Texts?

Writing

Out of the three villages you have read about, choose one village of your choice (you may also choose a completely different one). You are a T.V. reporter. You need to go to one of the villages and from there you have to report orally to the news channel what all you find there. How would you report?

Write the script — the dialogue between you and the T.V newsreader. The beginning is given below.

T.V. News Reader: Our correspondent reports from Koko village - What is the situation there? How do you find the village? What are the people around saying?

Project Work :

Talk to your elders about life fifty years ago. Talk to them as to how the plants, animals and water bodies were cared for or not cared. Seek the views of the elders and fill in the table and present it before the class.

Sl.No	Items	Status 50 years ago	Present status	Changes happened	Possible causes	How to protect or recover the environment
1.	Plants					
2.	Animals					
3.	Waterbodies					
4	Air pollution					

Based on the information you have gathered in the last column of the table, discuss in groups how best the youngsters can help save/protect the environment. List the specific recommendations.



How well have I understood this unit?

Read and tick (\checkmark) in the appropriate box.

Indicators	Yes	Somewhat	No
Reading: I read and comprehended the text:			
A. Environment			
B. Or will the Dreamer Wake?			
C. A Tale of Three Villages			
Vocabulary: I was able to			
 replace the underlined words in the sentences with the words from the box that have the same meaning. 			
say what the persons are called.			
fill in the blanks with appropriate forms of the words underlined.			
pick the meanings of the word underlined.			
Grammar: I was able to			
underline the non-finite clauses.			
rewrite the sentences to include the non-finite clauses.			
write the sentences in reported speech.			
report the dialogue.			

Indicators	Yes	Somewhat	No
• fill in the blanks.			
write the sentences in reported speech.			
Writing: I was able to			
write an imaginary interview.			
write a spoken discourse between the newsreader and me.			
Listening and Speaking:			
I listened and was able to tick the correct options to complete the statements.)		
Study Skills:			
I was able to fill the columns in the table given in study skills.			
Project Work:			
I was able to seek the views of the elders on how the plants, animals and water bodies were cared for or not cared.			
I was able to discuss in our group how best the youngsters can help/ save/ protect the environment by giving specific recommendations.			