

GETTING STARTED**A project on pollution**

1 Listen and read.

Nick: Your home village is so beautiful. There are so many trees, flowers and birds.

Mi: Yes, that's why I like coming back here on holiday.

Nick: Mi, what's that factory? It looks new.

Mi: I don't know. There wasn't a factory here last year.

Nick: Mi, look at the lake! Its water is almost black.

Mi: Let's go closer. ... I can't believe my eyes. The fish are dead!

Nick: I think the waste from the factory has polluted the lake. The fish have died because of the polluted water.

Mi: That's right. If the factory continues dumping poison into the lake, all the fish and other aquatic animals will die.

Nick: Ahchoo!

Mi: Bless you! What's the matter?

Nick: Thanks. Ahchoo! I think there's air pollution here as well. If the air wasn't dirty, I wouldn't sneeze so much. Ahchoo!

Mi: I've come up with an idea about our environmental project! How about giving a presentation about water and air pollution?

Nick: That's a good idea. Let's take some pictures of the factory and the lake to illustrate our presentation. Ahchoo!

THIS UNIT INCLUDES:**VOCABULARY**

Pollution

Words/ phrases showing cause/ effect relationships

PRONUNCIATION

Stress in words ending in *-ic* and *-al*

GRAMMAR

Conditional sentences type 1: review

Conditional sentences type 2

COMMUNICATION

Describing types of pollution

Discussing the causes and effects of pollution and ways to reduce it



Objectives:

By the end of this unit, students can:

- pronounce the words ending in *-ic* and *-al* correctly in isolation and in context
- use lexical items related to the topic 'Pollution' to talk about types of pollution
- use words and phrases showing cause/ effect relationships to describe the causes and effects of pollution
- use conditional sentences type 1 and type 2 correctly and appropriately to describe pollution
- read for general and specific information about water pollution
- talk about the causes and effects of water pollution as well as ways to reduce it
- listen to get specific information about thermal pollution
- write about the causes and effects of one pollution type

GETTING STARTED

A project on pollution

Introduction

Review the previous unit before Ss open their books by asking them to take part in a small game. Ss work in two big groups A and B. Make a paper ball. Throw the ball to a student in group A and he/ she has to call out one fairytale. If he/ she is right, group A gets one point, then he/ she throws the ball to a student in group B. The game stops when time is up. The group with more points wins.

Ask Ss if they know any story about the environment or pollution.

Write the unit title on the board 'Pollution'. Ask Ss to call out things which cause pollution, e.g., cars, factories, cows, ... Now start the lesson.

- 1 Ask Ss to open their books and look at the picture. Ask them some questions:

Who can you see in the picture?

Where do you think they are?

What can you see in the picture?

What do you think the people in the picture are talking about?

Ss answer the questions as a class.

Play the recording and have Ss follow along. After that, Ss can compare their answers with the information in the dialogue and add some more details to their answers.

a Find a word/ phrase that means:

- no longer alive
- growing or living in, on, or near water
- throwing away something you do not want, especially in a place which is not allowed
- a substance that can make people or animals ill or kill them if they eat or drink it
- made unclean or unsafe to use
- to think of an idea, or a plan

Watch out!

'Bless you!' is an idiom. You say it to somebody after they have sneezed.
'I can't believe my eyes!' is an informal expression. Do you know what it means?



b Answer the questions.

- Where are Nick and Mi?
- What does the water in the lake look like?
- Why is Mi surprised when they get closer to the lake?
- What is the factory dumping into the lake?
- Why is Nick sneezing so much?

c Tick (✓) true (T), false (F), or no information (NI).

- | | T | F | NI |
|--|--------------------------|--------------------------|--------------------------|
| 1. The water in the lake has been polluted by a ship. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Water pollution in the lake has made the fish die. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Aquatic plants may also die because of the polluted water. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Nick wouldn't sneeze so much if the air was clean. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Nick and Mi will give a talk about water and air pollution. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2 There are different types of pollution. Write each type under a picture.

water pollution land/soil pollution air pollution
noise pollution thermal pollution light pollution
radioactive pollution visual pollution



A. _____



B. _____



C. _____



D. _____



E. _____



F. _____



G. _____



H. _____

3 Complete the sentences with the types of pollution.

- When _____ happens, the water temperature in streams, rivers, lakes, or oceans changes.
- _____ occurs when the atmosphere contains gases, dust, or fumes in harmful amounts.
- When radiation goes into the land, air or water, it is called _____.
- Too much use of electric lights in cities may cause _____.
- _____ is the contamination of lakes, rivers, oceans, or groundwater, usually by human activities.
- _____ happens when human activities destroy the Earth's surface.
- _____ occurs because there are too many loud sounds in the environment.
- The sight of too many telephone poles, advertising billboards, overhead power lines, or shop signs may cause _____.

4 Work in groups. Which types of pollution in 3 does your neighbourhood face? Rank them in order of seriousness. Give reasons for your group's order.

Vote for the group with the best reasons.

- a Ss work independently to find the words with the given meanings in the conversation. Allow them to share answers before discussing as a class. Remember to ask Ss to read out the lines in the conversation that contain the words. Quickly write the correct answers on the board.

Key:

1. dead 2. aquatic 3. dump 4. poison 5. polluted 6. to come up with

Have Ss look at the **Watch out!** box and quickly read the information. Ask them if they know what *I can't believe my eyes* means. Then explain to them that this expression means you are very surprised at something you see.

- b Have Ss read the questions to make sure they understand them. Ss read the conversation again to answer the questions. Ss exchange their answers with a classmate. Call on some Ss to write their answers on the board. Check their answers.

Key: 1. They are in Mi's home village.

2. It's almost black.

3. She's surprised because she sees the fish are dead.

4. It's dumping poison into the lake.

5. He's sneezing so much because the air is not clean.

- c Have Ss read the sentences quickly to make sure they understand them. Ask them firstly to decide if the sentences are true, false or there is no information without reading the dialogue. Then have some Ss write their answers on the board. Now ask Ss to read the conversation again to check their answers. Ask Ss if they want to change the answers on the board and ask them to explain their choices. Confirm the correct answers.

Key: 1. F (It's polluted by the factory.) 2. T 3. NI 4. T 5. T

- 2 Have Ss look at the pictures. Ask them what they see in each picture. Now tell Ss that in the box are some types of pollution. Ss read these and identify any new words they do not know. Explain the new words so that Ss can understand the pollution types. Ss do this activity in pairs. Call on some Ss to give their answers and write them on the board.

Key:

A. radioactive pollution

B. noise pollution

C. visual pollution

D. thermal pollution

E. water pollution

F. land/ soil pollution

G. light pollution

H. air pollution

- 3 Have Ss read through the sentences to get a general understanding. T may teach some words which T thinks Ss do not know such as *contamination*.

Ss do this activity individually and then compare their answers with a classmate. Call on some Ss to stand up and give their answers. Confirm the correct answers.

Key:

1. thermal pollution

2. Air pollution

3. radioactive pollution

4. light pollution

5. Water pollution

6. Land/ Soil pollution

7. Noise pollution

8. visual pollution

- 4 Organise a game for this activity. Ss work in groups of five or six. In five minutes, Ss write down the pollution types their neighbourhood faces and rank them in order of seriousness. They also have to give reasons for their order. Call group representatives to present their group's order and reasons. Have the class vote for the group with the best reasons.

If time does not allow, do not have Ss do this activity. Instead just ask Ss to quickly review the pollution types.

A CLOSER LOOK 1

Vocabulary

1 Complete the table with appropriate verbs, nouns, and adjectives.

| Verb | Noun | Adjective |
|------------|------------------------------|--------------|
| to poison | (1) _____ | poisonous |
| (2) _____ | contamination contaminant | contaminated |
| to pollute | pollution (3) _____ | (4) _____ |
| to die | (5) _____ | dead |
| to damage | damage | (6) _____ |

2 Complete the sentences with the words from the table in 1. You do not need to use all the words. The first letter of each word has been provided.

- The p _____ chemical waste is dumped into the river.
- Do you know what p _____ cause air pollution?
- The d _____ fish are floating in the water.
- Don't drink that water. It's c _____.
- The acid rain has caused d _____ to the trees in this area.
- If we p _____ the air, more people will have breathing problems.

CAUSE

Here are some words and phrases you can use to signal the **cause** of a problem:

because/ since + clause

Example:

Because/ Since the water is polluted, the fish are dead.

due to/ because of + sth

Example:

The fish are dead *due to/ because of* the polluted water.

EFFECT

Here are some words and phrases you can use to signal the **effect** of a problem:

so + clause

Example:

The water is polluted, *so* the fish are dead.

to cause sth/ to lead to sth/ to result in sth

Example:

The polluted water *causes/ results in* the death of the fish.

To make sb/ sth do sth

Example:

The polluted water *makes* the fish die.

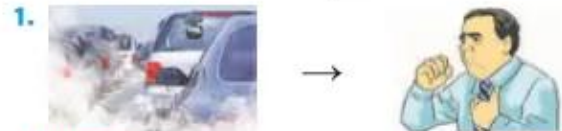
3a Decide which sentence in each pair of sentences is a cause and which is an effect. Write C (for cause) or E (for effect) next to each sentence. Note that the words in brackets relate to Activity 3b.

- People throw litter on the ground. Many animals eat the litter and become sick. (because)
- Ships spill oil in oceans and rivers. Many aquatic animals and plants die. (lead to)
- Households dump waste into the river. It is polluted. (so)
- Their children have birth defects. The parents were exposed to radiation. (since)
- We can't see the stars at night. There is too much light pollution. (due to)

b Combine the sentences in each pair into a new sentence that shows a cause/ effect relationship. Use the cause or effect signal word or phrase given in brackets. You will have to add, delete, or change words in most sentences.

Example:

- Because people throw litter on the ground, many animals eat it and become sick./ Many animals eat the litter and become sick because people throw it on the ground.
- 4 Work in groups. Look at the pairs of pictures. Give as many sentences as possible to show cause/ effect relationships.



Example:

People cough because they breathe in the fumes from cars.

The fumes from cars make people cough.



A CLOSER LOOK 1

Vocabulary

Ask Ss to call out the types of pollution they learnt in the previous lesson. Tell them that in this lesson they are going to learn different forms of some words as well as some words/ phrases to talk about the causes and effects of pollution.

- 1** Have Ss look at the table in the book. Make sure that they understand what to do. Ss complete the exercise individually and then compare their answers with a partner. Call on some Ss to write their answers on the board. Check their answers.

Key: 1. poison 2. contaminate 3. pollutant 4. polluted 5. death 6. damaged

- 2** Have Ss read each sentence silently to have a general understanding and decide which word form should be filled in each blank. For example, the word to be filled in the blank in sentence 1 is an adjective. Point out that the provided letter is a clue to help them find the word. Ss do the exercise and then compare their answers with a partner. Call on one or two Ss to give out the answers before confirming the correct ones.

Key: 1. poisonous 2. pollutants 3. dead 4. contaminated 5. damage 6. pollute

Have Ss look at the language box. Tell Ss that the words and phrases in the box express cause and effect relationships. Ss have learnt *so*, *because* and *because of*. Quickly go through the rest of words/ phrases as follows:

- *because/since* and *due to/ because of* are used to talk about the causes of something.

Because and *since* are synonyms and they come before a clause.

Due to and *because of* are synonyms and they come before a noun phrase.

Have Ss read the example sentences and underline the clause or noun phrase.

- Other words and phrases in the box express the effects of something.

So comes before a clause.

To cause, *to lead to* and *to result in* are synonyms and come before a noun phrase.

To make sb/sth do sth is another way to express the effects. After somebody/ something is an infinitive verb without *to*.

Have Ss read the example sentences and underline the clause, noun phrase, or infinitive.

For more able Ss, T may have Ss read the sentences and explain the rules themselves by using the words and phrases.

- 3a** Ask Ss to read each pair of sentences and decide which sentence is a cause and which is an effect. Ss compare their answers with a partner before giving the answers to the teacher. Confirm the correct answers.
- b** Ask Ss to read the example. Ask them what changes they can see in the new sentence. T may have Ss look at the language box again to remind them of the structures. Now Ss have to combine each pair of sentences in **3a** into a complete sentence, using the word/ phrase in brackets. To save time, assign sentences 2 to 5 to different Ss and have Ss work only on these. Call on some Ss to write their sentences on the board and correct them carefully. T can ask Ss to write all the sentences as homework.

Key:

- a**
1. People throw litter on the ground. **C** Many animals eat the litter and become sick. **E**
 2. Ships spill oil in oceans and rivers. **C** Many aquatic animals and plants die. **E**
 3. Households dump waste into the river. **C** It is polluted. **E**
 4. Their children have birth defects. **E** The parents were exposed to radiation **C**.
 5. We can't see the stars at night. **E** There is too much light pollution. **C**
- b**
2. Oil spills from ships in oceans and rivers lead to the death of many aquatic animals and plants.
 3. Households dump waste into the river so it is polluted.
 4. Since the parents were exposed to radiation, their children have birth defects.
 5. We can't see the stars at night due to the light pollution.

A CLOSER LOOK 2

Pronunciation

Stress in words ending in *-ic* and *-al*

Adding the suffix *-ic* changes the stress of a word. Stress the syllable immediately before the suffix.

Example:

'atom → a'tomic

Adding the suffix *-al* to a word does not change its stress.

Example:

'music → 'musical

Note: If a word can take both suffixes: one ending in *-ic* and the other ending in *-al*, both words have the stress on the same syllable.

Example:

e'conomy → eco'nomical → eco'nomical

5 Listen and mark the stress in each word, then repeat it.

- | | |
|---------------|---------------|
| 1. artistic | 6. physical |
| 2. athletic | 7. heroic |
| 3. historic | 8. poetic |
| 4. historical | 9. botanic |
| 5. logical | 10. botanical |

6 Underline the words ending in *-ic* and circle the words ending in *-al* in the following sentences. Mark the stress in each word. Listen and check your answers, then repeat the sentences.

1. According to scientific research, tiny species may help clean radioactive pollution.
2. Water quality has become a national problem.
3. Many people have received medical treatment because of the disease.
4. Chemical waste can cause water pollution.
5. The reduction in air pollution was dramatic last year.

Grammar

Conditional sentences type 1: review

1 Put the verbs in brackets into the correct form.

1. If we (recycle) _____ more, we (help) _____ the Earth.
2. Factories (not dump) _____ waste into rivers if the government (fine) _____ them heavily.
3. If people (travel) _____ to work by bus, there (be) _____ fewer car fumes.
4. We (save) _____ thousands of trees if we (not waste) _____ paper.
5. If we (use) _____ water carefully, more people (have) _____ fresh water.



2 Combine each pair of sentences to make a conditional sentence type 1.

1. Students are more aware of protecting the environment. Teachers teach environmental issues at school.
→ _____
2. Light pollution happens. Animals change their behaviour patterns.
→ _____
3. The levels of radioactive pollution decrease. We switch from nuclear power to renewable energy sources.
→ _____
4. The water temperature increases. Some aquatic creatures are unable to reproduce.
→ _____
5. People get more diseases. The water is contaminated.
→ _____



- 4 Have Ss look at the pictures in 1. Ask Ss which picture shows the cause and which shows the effect. Then ask them to read the example sentences and pay attention to the cause/ effect words or phrases. Ss work in pairs to write sentences showing cause/effect relationships. For a more able class, T may have Ss do the whole exercise. With other classes, just ask Ss to work with the pair of pictures in 2. Ask Ss to identify the picture showing the cause and the one showing the effect. Then together make up sentences, using the cause/ effect words or phrases. The rest can be done as homework.

This activity can also be carried out as a game. Divide the class into 12 groups. Two groups work with the same pair of pictures in 2, 3 or 4. In three minutes, groups of Ss write down as many sentences based on the given picture pair as possible on a sheet of paper. When time is up, the group with the most sentences is the winner. They stick their sheet of paper on the board and read the sentences aloud. Other groups and T give comments. Other groups can add any sentences they have. T may take Ss' work home to mark it.

Suggested answers:

2. The soil is polluted, so plants can't grow.
3. We won't have fresh water to drink because of water pollution.
4. We plant trees, so we can have fresh air.

Pronunciation

Stress in words ending in -ic and -al


Ask Ss to look at the rules and the examples in the box. Go through the rules with them. For a more able class, have Ss give some more examples.

- 5 Play the recording for Ss to stress the words. Ask some Ss to say where the stress in each word is. Confirm the correct answers. Play the recording again for Ss to repeat the words. Call on some Ss to read out the words.

Key: 1. ar'tistic 6. 'physical
 2. ath'letic 7. he'roic
 3. his'toric 8. po'etic
 4. his'torical 9. bo'tanic
 5. 'logical 10. bo'tanical

 **Audio script:** 1. ar'tistic 6. 'physical
 2. ath'letic 7. he'roic
 3. his'toric 8. po'etic
 4. his'torical 9. bo'tanic
 5. 'logical 10. bo'tanical

- 6 Have Ss do the activity individually. Play the recording for Ss to check their answers. Then elicit the correct stress patterns from Ss. Play the recording again for Ss to repeat the sentences. Ask some Ss to read out the sentences.

 **Audio script:** 1. According to scientific research, tiny species may help clean radioactive pollution.
 2. Water quality has become a national problem.
 3. Many people have received medical treatment because of the disease.
 4. Chemical waste can cause water pollution.
 5. The reduction in air pollution was dramatic last year.

Key: 1. scien'tific 2. 'national 3. 'medical 4. 'chemical 5. dra'matic

A CLOSER LOOK 2

Grammar

Conditional sentences type 1: review

Elicit the form and use of the conditional sentence type 1 from Ss. Ask Ss to give some example sentences.

- 1 Ss do this exercise individually then compare their answers with a partner. Have Ss read out their answers. Confirm the correct ones.

Key: 1. recycle; will help 2. won't dump; fines 3. travel; will be 4. will save; don't waste 5. use; will have

Conditional sentences type 2

The conditional sentence type 2 describes a thing which is not true or is unlikely to happen in the present or future.

If + subject + V (past simple),

if-clause

subject + would/could/might + V (bare infinitive)

main clause

Example: If it *wasn't* noisy in here, I *could hear* you clearly. (But it's very noisy in here)

The conditional sentence type 2 can be used to give advice.

Example: If I *were* you, I *would see* the doctor immediately.

Note: We can use both *was* and *were* with *I/he/she/it* in the *if*-clause.

3 Match an *if*-clause in A with a suitable main clause in B.

| A | B |
|--|---|
| 1. If I were you, | a. what would happen? |
| 2. If Lan wasn't ill, | b. I'd look for a new place to live. |
| 3. If there were fewer cars on the road, | c. she would join our tree planting activity. |
| 4. If people really cared about the environment, | d. there would be less pollution. |
| 5. If there was no fresh water in the world, | e. they wouldn't dump waste into the lake. |

4 Put the verbs in brackets into the correct form.

- If you (be) _____ the president, what you (do) _____ to help the environment?
- They get sick so often. If they (exercise) _____ more, they (be) _____ healthier.
- If I (have) _____ one million US dollars, I (build) _____ more parks in our city.
- Ngoc's mother is unhappy. If Ngoc (tidy) _____ her room every day, her mother (not be) _____ so upset.
- There isn't a garden at our house. If there (be) _____, we (grow) _____ vegetables.

5 Write a conditional sentence type 2 for each situation, as in the example.

- People throw rubbish in the street. The street doesn't look attractive.
→ *If people didn't throw rubbish in the street, it would look attractive.*
- There are so many billboards in our city. People cannot enjoy the view.
→ _____.
- There is so much light in the city at night. We cannot see the stars clearly.
→ _____.
- We turn on the heater all the time. We have to pay three million dong for electricity a month.
→ _____.
- The karaoke bar makes so much noise almost every night. The residents complain to its owner.
→ _____.
- She has a headache after work every day. She works in a noisy office.
→ _____.

6 CHAIN GAME



Work in groups. Student A begins with a conditional sentence type 1 or type 2. Student B uses the end of student A's sentence to begin his/her own sentence. Student C does the same. Continue the game until the teacher tells you to stop.

Which group has the most sentences?

Example:

- A: If each person plants a tree, there will be a lot of trees.
B: If there are a lot of trees, the air will be cleaner.
C: If the air is cleaner, fewer people will be ill.

- 2** Have Ss read the pairs of sentences. Ask two Ss to write the new conditional sentences type 1 on the board while other Ss write their own sentences. Ask Ss to comment on the sentences on the board. Give feedback on these sentences and ask other Ss to correct them if necessary.

For a more able class, this activity can be done as a game. Ss work in groups and write the sentences on a big piece of paper. Go through the groups' sentences and give marks to the groups with all correct sentences.

Key: 1. Students will be more aware of protecting the environment if teachers teach environmental issues at school.
2. When light pollution happens, animals will change their behaviour patterns.
3. The levels of radioactive pollution will decrease if we switch from nuclear power to renewable energy sources.
4. If the water temperature increases, some aquatic creatures will be unable to reproduce.
5. People will get more diseases if the water is contaminated.

Conditional sentences type 2

Write this incomplete sentence on the board: *If I were a billionaire, I would _____*. Ask some Ss to complete the sentence orally. Write the most original answer on the board. Tell Ss that this sentence is an example of the conditional sentence type 2.

Have Ss look at the structure of the conditional sentence type 2 in the language box. Draw Ss' attention to the example sentence on the board. Underline the subject, verb, etc. in this example and explain the structure of the sentence at the same time.

Now Ss read the second example in the language box. Tell them that this sentence is a piece of advice.

Ask Ss to give one or two examples.

- 3** Ss do this exercise individually, and then compare their answers with a classmate. Check Ss' answers.

Key: 1. b 2. c 3. d 4. e 5. a

- 4** Ss do this exercise individually. Invite two Ss to the board to write their answers. Go through the answers with the class. Have other Ss correct the answers if necessary.

Key: 1. were; would ... do 2. exercised; would be 3. had; would build
4. tidied; wouldn't be 5. was/were; would grow

- 5** Have Ss quickly read the example. Ask Ss to comment on the example. They may see that the meaning of the original sentences was made opposite in the new conditional sentence (i.e. positive into negative form for the first sentence and negative into positive for the second sentence). Have Ss do this exercise individually and then compare their answers with a classmate. Ask one or two Ss to write their sentences on the board.

If time doesn't allow, have Ss write sentences 2 and 3 and correct these carefully. The rest can be done as homework.

Key:
2. If there weren't so many billboards in our city, people could enjoy the view.
3. If there wasn't/ weren't so much light in the city at night, we could see the stars clearly.
4. If we didn't turn on the heater all the time, we wouldn't have to pay three million dong for electricity a month.
5. If the karaoke bar didn't make so much noise almost every night, the residents wouldn't complain to its owner.
6. She wouldn't have a headache after work every day if she didn't work in a noisy office.

- 6** Put Ss in groups of five or six to play this chain game. Explain that the aim of the game is to keep the chain going for as long as possible using type 1 or 2 conditional sentences. If a group hesitates for more than 10 seconds they are out. Walk around the class, listening to groups and monitoring the game. Groups that are still going when the five minutes is up are the winners. Note that the aim is to practise the language in a fun, verbal way so be sure to keep the atmosphere light.

COMMUNICATION

Tell Ss that in this lesson they will have the opportunity to explore noise pollution, a common pollution type that not many people recognise as a pollution.

Go through the extra vocabulary with Ss. If Ss do not know any word in the box, quickly teach it. T can teach the words using different ways:

- *permanent*: give the definition (lasting forever; never changing) or give the antonym (this is the opposite of *temporary*)
- *earplug*: draw a pair of earplugs on the board and explain 'We put these into our ears to keep out noise or water.'
- *affect*: tell Ss that this is the verb form of the noun *effect*
- *hearing loss*: ask if Ss know the verb form of *loss*. If they do not, give them the verb *to lose*. Then give a simple explanation 'When you have hearing loss, you can't hear things clearly.'
- *blood pressure*: give an example (My father has high blood pressure. Whenever he goes to hospital, the nurse measures his blood pressure.) and ask if Ss can guess the meaning. T may give the Vietnamese translation.

- 1 Have Ss read the questions in the questionnaire to make sure they understand everything. Explain any unclear points. Then Ss answer the questionnaire individually. Remind them to circle their answers.
- 2 Ss work in pairs to compare their answers and see if they have any different answers. They do not have to reach an agreement at this stage. Ask some pairs to report on their differences.
- 3 Play the recording for Ss to check their answers. Ss listen to the recording twice. If there are any incorrect answers, Ss correct them. Ask Ss if any of the answers has surprised them, and if so, why.

Key: 1. B 2. C 3. A 4. B 5. C 6. A 7. A 8. C



Audio script:

Noise is constant and loud sound. To measure the loudness, or volume of sounds, people use a unit called a decibel. When a sound is louder than 70 decibels, it can cause noise pollution. Do you know that the noise from a vacuum cleaner or a motorcycle can result in permanent hearing loss after eight hours? The sounds of a concert are even more serious. They can reach as high as 130 decibels and may cause immediate and permanent hearing loss. Noise pollution can also lead to headaches and high blood pressure. If you are listening to music through headphones, and other people can hear it, it means the music is too loud and unsafe. If there seems to be a ringing or buzzing in your ears, it means the noise is affecting you and damaging your hearing. Wearing earplugs when you go to concerts or other loud events, and listening to music through headphones or headsets at safe levels can help you reduce the effects of noise pollution.

- 4 Ask Ss which of the eight questions in the questionnaire proposes ways to prevent noise pollution. Have Ss work in groups in five minutes to discuss more ways to reduce noise pollution. Ss write their answers on a big piece of paper and then present their answers. Have Ss vote for the best ways.

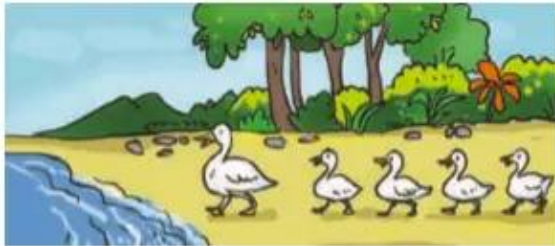
This activity can be carried out as a game to find out which group in five minutes can come up with the most ways. The winning group then presents the answers to the whole class. Other groups add more if they have any different ways.

SKILLS 1

Reading

- 1** Work in pairs. One of you looks at picture A, and the other looks at picture B on page 15. Ask each other questions to find out the differences between your pictures.

Picture A



What do the pictures tell you?

- 2** MI and Nick have decided to give a presentation on water pollution to the class. Read what they have prepared and answer the questions.

Water pollution is the contamination of bodies of water such as lakes, rivers, oceans, and groundwater (the water beneath the Earth's surface). It is one of the most serious types of pollution.

Water pollution can have many different causes. Factories dump industrial waste into lakes and rivers. Sewage from households is another cause. Farms using pesticides to kill insects and herbicides to kill weeds can also lead to water pollution. These factors cause 'point source' pollution while pollutants from storm water and the atmosphere result in 'non-point source' pollution.

Water pollution can have dramatic effects. In many poor nations, there are frequent outbreaks of cholera and other diseases because of people drinking untreated water. Humans can even die if they drink contaminated water. Polluted water also causes the death of aquatic animals such as fish, crabs, or birds. Other animals eat these dead animals and may also get sick. In addition, herbicides in water can kill aquatic plants and cause further damage to the environment.

So what should we do to reduce water pollution?

1. What does the second paragraph tell you about?
2. What does the third paragraph tell you about?
3. What is groundwater?
4. What are point source pollutants?
5. What are non-point source pollutants?
6. Why do people use herbicides?

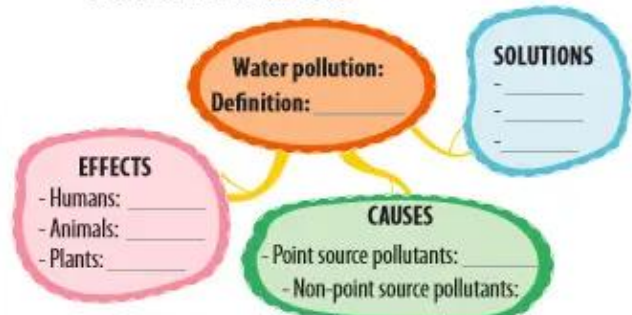
- 3** Read the text again and complete the notes about the effects of water pollution. Fill each blank with no more than three words.

1. If the drinking water is untreated, an outbreak of _____ may happen.
2. People drinking contaminated water may _____.
3. Fish, crabs or birds, may also die because of _____.
4. Other animals may become ill if they eat the _____ animals.
5. Herbicides kill both weeds and _____.

Speaking

- 4** Work in groups and discuss the solutions to water pollution. Make notes of your answers.

- 5** Now complete the diagram of water pollution. Use the information from the text for the causes and effects and your group's ideas for the solutions.



- 6** Make a presentation about water pollution based on the diagram.

SKILLS 1

Reading

1 Have Ss do this activity in pairs. One student looks at picture A on page 12 while the other looks at picture B on page 15. They ask each other Yes/No questions to find out the differences between the two pictures. T may model asking and answering questions with a strong student. For example:

T (**picture A**): Are there five ducks in your picture?

S (**picture B**): Yes, there are. Are the ducks black in your picture?

T: No, they aren't. They're white.

...

Suggested differences:

| Picture A | Picture B |
|---|---|
| - The ducks are white. - They're going to the lake. - There aren't any factories near the lake. - The lake water is clean. | - The ducks are black. - They're going from the lake. - There are some factories near the lake. - The lake water is dirty/black. |

Call on one student to report on the differences. Other Ss can add some more.

Ask Ss what the pictures tell them (water pollution). Lead to the second activity.

2 Ask Ss to read the passage quickly and answer the questions. Tell Ss that the first two questions ask for general information while the rest focus on details. Ss can underline parts of the passage that help them with the answers. Ss compare their answers before giving the answers to T.

Key: 1. The second paragraph tells about the causes of water pollution.

2. The third paragraph tells about the effects of water pollution.

3. It's the water beneath the Earth's surface.

4. They are industrial waste, sewage, pesticides, and herbicides.

5. They are pollutants from storm water and the atmosphere.

6. They use herbicides to kill weeds.

3 Remind Ss quickly of the way to do this type of exercise. Ss read the sentences quickly to underline the keywords. For example, in sentence 1, the keywords are *drinking water*, *untreated* and *outbreak*. Then they locate the keywords in the passage and pick the suitable words to fill each blank. For instance, for the blank in sentence 1, a noun should be filled in. Have some Ss read aloud their answers. Confirm the correct ones.

Key: 1. cholera 2. die 3. polluted water 4. dead 5. aquatic plants

Speaking

4 Ss work in groups to discuss the solutions to water pollution. To help them focus their ideas, T can suggest they make two sub-headings:

Point source pollution

Non-point source pollution

They can then go through each cause in the presentation and think of the solutions. For example:

Factories dump industrial waste.

Solution 1: Give heavy fines to companies that are found doing this.

Solution 2: Educate companies about the environment.

Solution 3: Give tax breaks to companies that find 'clean' ways to dispose of their waste.

They make notes of the answers on a piece of paper. Invite one group to quickly present their solutions. Other groups add any ideas if necessary. As it is an open activity, accept all the answers as long as they make sense.

5 Ss work in groups again to complete the diagram. Set the time of about five to seven minutes. It is better if Ss draw the diagram on a big piece of paper.

6 Ask some groups to give a presentation about water pollution. Other groups listen and give comments. The class may vote for the best presentation and T can give them marks. If the class size is small and time allows, all the groups can present.

SKILLS 2

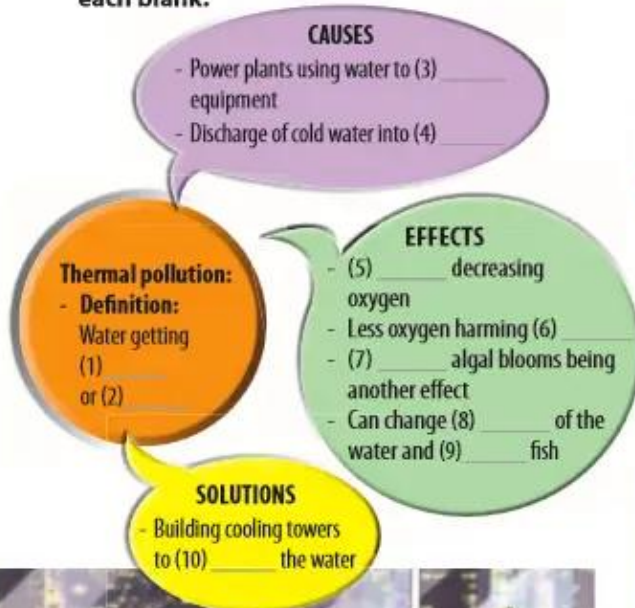
Listening

- 1 Describe what you see in the pictures and talk about the relationship between them.



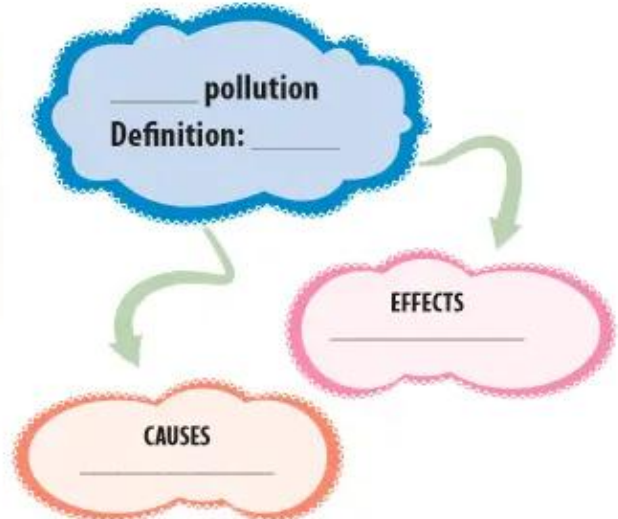
Listen and check your answers.

- 2 Listen to part of a conversation on TV between a reporter and an environmentalist about thermal pollution. Complete the diagram. Use no more than three words for each blank.



Writing

- 3 Work in pairs. Discuss the causes and effects of one type of pollution in your area. Make notes in the diagram.



- 4 Imagine that you two are writing an article for the local newspaper about a type of pollution in your area. One of you writes about the causes and the other writes about the effects of the pollution type you have just discussed in 3.



- 5 Read each other's work and put them together to make a complete article.

SKILLS 2

Listening

- 1 Ss work in pairs, describing the pictures and the relationship between them. Call on one or two Ss to give their answers. Play the recording for Ss to check their answers.

Key: The first picture shows an algal bloom in coastal seawater.
The second picture shows the cooling towers from a power station.
They are both related to thermal pollution.

Ask Ss what they know about thermal pollution.

- 2 Have Ss quickly read the diagram and identify the form of the word/ phrase to be filled in each blank. For example, the words for blanks 1 and 2 are adjectives. Play the recording once. Ask for Ss' answers and write them on the board. If all the answers are correct, move to the next activity. If Ss are not sure about their answers, play the recording again for Ss to check. Make changes to the answers on the board.

Key: 1. hotter 2. cooler 3. cool 4. warm rivers 5. Warmer water
6. fish populations 7. Harmful 8. colour 9. poison 10. cool down



Audio script:

Reporter: Does thermal pollution mean that bodies of water get hotter, Mr Nam?
Mr Nam: Not always. Sometimes the water becomes colder, and that's also thermal pollution. In general, thermal pollution means a change in the water temperature.
Reporter: That's interesting! What causes it?
Mr Nam: Power stations are one factor. They use water in the nearby lakes or rivers to cool their equipment, which heats up the water. Then they dump the hot water back into its source.
Reporter: Are there any other causes?
Mr Nam: Yes. Thermal pollution may also happen due to the discharge of cold water from reservoirs into warm rivers.
Reporter: Thermal pollution can have dramatic effects. Right?
Mr Nam: Certainly. Most aquatic creatures need a certain temperature to survive. Warmer water has less oxygen in it, and this can harm fish populations. Besides, warmer water can cause harmful algal blooms. This can change the colour of the water like in the first picture and, more seriously, the algae poisons the fish.
Reporter: What can we do, Mr Nam?
Mr Nam: In many places, they build cooling towers like in the second picture to cool down the water from power stations.
Reporter: Anything else we can do? ...

Writing

In this writing part, Ss are asked to write about the causes and effects of one pollution type in their area. Recap on the types of pollution by turning quickly back to the beginning of the unit in the **GETTING STARTED** section.

- 3 Ss work in pairs and decide which pollution type in their area they are going to discuss. Have Ss take notes of the causes and effects. Move around to offer help as pairs discuss their ideas.
- 4 Ss stay with their partner. One writes about the causes and the other writes about the effects based on their notes from 3. Remind Ss to use markers like *firstly*, *secondly*, *finally* to navigate through their points. Move around to offer help and take notes of any structures or language that Ss are struggling with. Bring the whole group together if there is a point T wants to clarify, then they can continue with the writing.
- 5 Now have Ss share their work with each other and combine it to make a complete article. Tell them that they should add one or two sentences at the beginning to introduce the topic and other ones at the end to conclude their article. Note, if Ss need more support, post the sample article (see next page) on the board as a reference when Ss get to this stage of the lesson. This will help them structure their work. Next, have pairs swap and read each other's articles. Finally, ask for volunteer pairs to read their articles out to the class and have Ss comment on them. Then collect all the articles for marking.

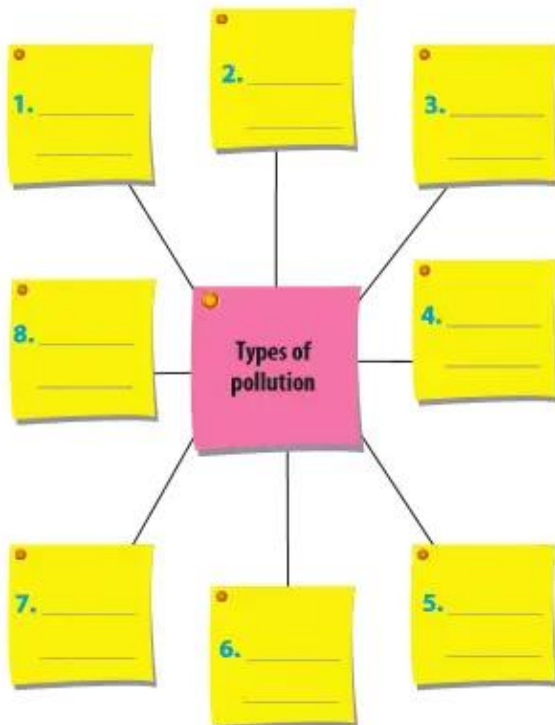
LOOKING BACK

Vocabulary

- 1** Complete the sentences with the correct form of the words in brackets.

I live on the outskirts of a city in Viet Nam. Three years ago, my neighbourhood was very clean and beautiful, with paddy fields and green trees. However, in the last two years, some factories have appeared in my neighbourhood. They have caused serious water (1. pollute) _____ by dumping industrial waste into the lake. The (2. contaminate) _____ water has led to the (3. die) _____ of aquatic animals and plants. Also, tall residential buildings have replaced the paddy fields. More people result in more cars and motorcycles. (4. Poison) _____ fumes from these vehicles are serious air (5. pollute) _____.

- 2** Write types of pollution in the word web.



- 3** Rewrite the sentences, using the words in brackets.

1. The noise from the music club is loud, so the residents of the street cannot sleep. (because of)
→ _____
2. Vy had a stomachache because she ate a big dinner. (since)
→ _____
3. Because it rained heavily, the road in front of my house was flooded. (due to)
→ _____
4. His room is untidy, so his mother is unhappy. (because)
→ _____
5. Global warming happens when there is too much carbon dioxide (CO₂) in the atmosphere. (causes)
→ _____

Grammar

- 4** Put the verbs in brackets into the correct form.

1. It (not be) _____ possible to save the Earth if we (not take) _____ action now.
2. If the world temperatures _____ (continue) to rise, there _____ (be) less snow.
3. If I (be) _____ you, I (wear) _____ earplugs when going to the concert.
4. If we _____ (do) nothing to stop global warming, we _____ (see) big changes in the future.
5. How you (travel) _____ to work if you (not have) _____ this motorbike?
6. Our garden is so beautiful. There (not be) _____ any flowers if my sister (not take care) _____ of it every day.

- 5** Complete the sentences, using your own ideas.

1. If I were an environmentalist, _____.
2. If our school had a big garden, _____.
3. If the lake wasn't polluted, _____.
4. If we have a day off tomorrow, _____.
5. If you want to do something for the planet, _____.

Sample article: **WATER POLLUTION**

There are several types of pollution. However, water pollution is the most serious in our area. It is caused by several factors. Firstly, families dump sewage into the river. In the past it was a very beautiful river, but now the water is almost black. Secondly, there are two new factories in our area, and they are dumping chemical waste into the lake and river. Thirdly, pesticides are another source of pollution. Farmers in our area usually use these to kill insects.

Water pollution badly affects our area. We do not have enough fresh water to water the plants and crops. People cannot raise fish in the river and the lake because the water there is so polluted. In addition, there are no more wild ducks near the river today since they cannot find fish for food. Another negative effect is that sometimes in the afternoon there is a bad smell from the polluted river, so people do not like walking along it anymore.

People in our area are all aware of this problem, and we are thinking of some ways to solve it.

LOOKING BACK

Encourage Ss not to refer back to the unit. Ask them to keep a record of their answers to each exercise so that they can use that information to complete the self-assessment box at the end of the unit.

Vocabulary

- 1 Ss do this exercise individually then compare their answers with a partner. Check Ss' answers.

Key: 1. pollution 2. contaminated 3. death 4. Poisonous 5. pollutants

- 2 Ss do this exercise individually. Ask some Ss to write their answers on the board. Confirm the correct answers.

Key:

1. radioactive pollution 2. noise pollution 3. visual pollution 4. thermal pollution
5. water pollution 6. land/soil pollution 7. light pollution 8. air pollution

- 3 Ss write the sentences using the words in brackets. Ss compare their sentences with a partner. Have two Ss write their sentences on the board. T and other Ss give comments.

This activity may be conducted as a game if T wants to lighten the atmosphere. Ss write the sentences in pairs. Pick the sentences of three quickest pairs. Announce the winning pair with the most correct sentences.

Key:

1. The residents of the street cannot sleep because of the loud noise from the music club.
2. Vy had a stomachache since she ate a big dinner.
3. The road in front of my house was flooded due to the heavy rain.
4. His mother is unhappy because his room is untidy.
5. Too much carbon dioxide (CO₂) in the atmosphere causes global warming.

Grammar

- 4 Ss do this exercise individually and then share the answers with a classmate. Check their answers.

Key:

1. won't be; don't take 2. continue; will be 3. were/was; would wear
4. do; will see 5. would ... travel; didn't have 6. wouldn't be; didn't take care

- 5 Ss complete the sentences individually using their own ideas. Remind them to identify whether the sentence is a conditional sentence type 1 or type 2. Call some Ss to share their sentences. Accept all the sentences if they make sense.

Communication

6 Work in groups. Discuss what you would do or say in each situation.

1. Your neighbours littered near your house.
2. Your friend wore headphones every day to listen to music.
3. Your brother dumped his clothes and school things on the floor.
4. Your sister had a bath every day.

Example:

- A: If my neighbours littered near my house, I would write them a letter explaining that it was making the neighbourhood dirty.
- B: Oh, I would put a large sign up saying 'No littering'.
- C: I think I would knock on their door and explain that it was polluting the area.

| Finished! Now I can ... | ✓ | ✓✓ | ✓✓✓ |
|---|---|----|-----|
| <ul style="list-style-type: none"> • use words/ phrases related to the topic and those showing cause/ effect relationships suitably • use conditional sentences type 2 appropriately • pronounce words ending in <i>-ic</i> and <i>-al</i> correctly in isolation and in sentences • describe some types of pollution • discuss the causes and effects of pollution as well as ways to reduce it | | | |

PROJECT

What would you do if...???

Imagine that your group is entering a competition to lead the Green Club in your school. You are asked the question: *What would you do to reduce pollution in our country if you were the Minister of Natural Resources and Environment?*

You are required to create a collage to show what you would do, and give a presentation about it.

Now...



1. Work in groups and discuss the things you would do.
2. Collect pictures from different sources, or draw the pictures.
3. Stick the pictures on a big piece of paper.
4. Prepare a presentation. Remember to assign who will talk about what.
5. Give a presentation to the class.

Picture B - **SKILLS 1**



Communication

- 6 Ss work in groups to discuss what they would do or say in each situation. Ask Ss to read the example. Ss may not need to discuss all the situations. Two or three groups may discuss the same situation. Move around the class to listen to their ideas.

Finished!

Ask Ss to complete the self-assessment. Identify any difficulties and weak areas and provide further practice.

PROJECT

What would you do if...???

Ask Ss to read the information about the project. Ask if Ss still remember what a collage is. They made a collage in Grade 7. If they do not remember clearly, tell them that a collage is a picture made by sticking photographs, pictures or drawings onto a surface. Remind Ss that they should use conditional sentences type 2 to give the presentation.

Ss work in groups to do the project following the instructions in the book. Answer Ss' questions if there are any. Remember to have Ss present their collage in the next lesson and vote for the best.

