I Pronunciation

Read the sentences and underline the stressed words. Then practise saying them with a natural rhythm.

1. Can farming affect the global temperature?
2. Some building materials are no longer allowed to be used.
3. Are you sure that these energy resources can be replaced naturally?
4. Coal is the dirtiest of all fossil fuels, but it's still burnt to produce electricity.
5. We use flowing water to produce electricity for the village.
6. Do you think global warming is linked to rising sea levels?
7. I hope that renewable sources of energy will meet our needs.
8. There is an increase in certain greenhouse gases in the atmosphere.

II Vocabulary

1 Complete the sentences using the correct forms of the words in the box.

heat-trapping	warming	release	waste
coal	emission	methane	fuel

1. Solid _____ like coal and wood are still used for cooking and heating.

2. Burning _____ for heating and cooking can increase indoor air pollution.

3. When trees are cut down or burnt, they _____ the carbon they store into the atmosphere.

4. Many people are not aware that _____ is a stronger greenhouse gas than carbon dioxide.

5. One of our goals is to reduce global CO_2 _____ by half in about ten years' time.

6. Carbon dioxide is a _____ gas because it traps too much of the sun's heat and stops it from escaping back into space.

7. It is important to understand the causes and effects of global _____ to protect our planet.

8. Soot from burning rubbish and organic _____ in open fires can cause the worst type of air pollution.

2 **Choose the correct word or phrase to complete each sentence.**

1. Greenhouse gases/Renewable sources are heat-trapping pollutants that cause global warming.
2. Emissions of black carbon/greenhouse effect from indoor stoves can cause serious health problems.
3. When black carbon falls on snow it warms its surface and the snow melts/releases faster.
4. Carbon dioxide and other greenhouse gases are mainly produced by human activities/bodies.
5. Deforestation/The greenhouse effect means cutting down or burning the trees in an area.
6. The burning of crop waste/fossil fuels can kill useful soil bacteria and make the soil poorer.
7. Renewable/Non-renewable energy is important to our future as it is clean and sustainable.
8. Increase in temperatures can add more water to oceans, which can lead to a rise in sea levels/CO_2 levels.

3 **Choose the best answers to complete the sentences.**

1. Global warming is the _____ in the earth's temperature caused by greenhouse gases.
   A. balance   B. pollution   C. increase   D. heat
2. How do greenhouse gases _____ heat in the earth's atmosphere?
   A. trap   B. burn   C. melt   D. cut
3. The greenhouse _____ is the gradual warming of the earth's surface.
   A. effect   B. gas   C. pollution   D. impact
4. Do you think _____ global temperature rise to 1.5°C is possible?
   A. cooling   B. limiting   C. achieving   D. stopping
5. Countries should switch _____ clean sources of energy.
   A. from   B. on   C. to   D. off
6. Forests are useful as they _____ CO_2 from the atmosphere and slow global warming.
   A. release   B. remove   C. cut   D. replace
7. Ending deforestation will be an _____ way to limit global warming.
   A. useful   B. unusual   C. equal   D. effective
8. Methane is _____ for more than 30 per cent of global warming from human activities.
   A. responsible   B. dirty   C. powerful   D. important

III **Grammar**

1 **Choose the correct forms of the verbs to complete the sentences.**

1. Known/Knowing that Mai is interested in environmental issues, Mike bought her a book about global warming.
2. Affected/Affecting badly by soot produced by their old coal stove, they decided to switch to an electric stove.

3. Waited/ Waiting for his classmates, Tuan made some changes to their presentation on deforestation.

4. Burnt/Burning in open fires, rubbish and organic waste produce a great amount of black carbon.

5. Encouraged/Encouraging by students' interest in climate change, the Green Club members organised many activities to raise awareness of the issue.

6. When cut/cutting down, trees release a lot of carbon dioxide into the atmosphere.

7. Done/Doing research on climate change, Mike became interested in environmental studies.

8. Used/Using widely for cooking and heating, sunlight and wind can reduce use of fossil fuels.

2 **Rewrite the sentences using present or past participle clauses.**

1. Black carbon traps sunlight and sends it back into the air as heat.

   → _____, black carbon sends it back into the air as heat.

2. When fossil fuels are burnt for energy, they release CO_2 and other greenhouse gases.

   → _____, fossil fuels release CO_2 and other greenhouse gases.

3. Some farmers burn crop waste and kill the useful bacteria living in the soil.

   → _____, some farmers kill the useful bacteria living in the soil.

4. Mr Viet is a geography teacher, so he knows a lot about climate change.

   → _____, Mr Viet knows a lot about climate change.

5. Many buildings were hit by the heavy storm and got seriously damaged.

   → _____, many buildings got seriously damaged.

6. When farmers cut down forests to make space for farm animals and crops, they contribute to global warming.

   → _____, farmers contribute to global warming.

3 **There is a mistake in each sentence. Find the mistake and correct it.**

1. Black carbon falls on the surface of snow or ice, speeds up the melting process.

2. Sea levels will continue to rise if global warming is not limiting.

3. Flooding during the heavy rain, our house took a week to dry up.

4. If carbon emissions reduced, the impact of global warming will be less serious.

5. Affecting by climate change, some regions are experiencing extreme heat.

6. If we using more renewable energy, the price of natural gas and coal will go down.

7. To be a powerful greenhouse gas, methane causes nearly a third of today's warming from human activities.

8. Been cut down or burnt, trees release the carbon they store into the atmosphere as CO_2.

1 **Read the text. Match the headings (A–F) below with the paragraphs (1–4). There are TWO extra headings.**

A. Hopes for the future

B. Methane emissions in Canada and Brazil

C. The cow mask and its uses

D. Efforts to reduce methane emissions

E. Keeping cows healthy

F. Cows, methane, and global warming

Methane-catching masks for cows

1. _____

There are more than one billion cows in the world, and cow farming is a large source of methane emissions. This colourless and odourless gas is much more powerful than CO_2 at warming the earth.

2. _____

Farmers and companies are developing solutions for decreasing cows' methane emissions. In Canada and Brazil, farmers started adding a special ingredient to their animals' feed to reduce cows' methane production. In New Zealand, scientists are working on a vaccine that can cut methane emissions. Rather than stopping methane emissions, a UK company has designed face masks to catch the gas before it is released.

3. _____

The masks will allow cows to continue their normal diet, but will turn methane into CO_2 and water. They can fit comfortably on the cow's head and can be adjusted to different head sizes. Sensors on the masks can notice when methane comes out of the cow's mouth and provide the percentage of the gas. This information can also be useful for farmers who can use it to identify the early signs of disease. For example, if a cow eats less, but produces more methane than usual, it may have a health problem.

4. _____

It is predicted that the need for beef and dairy products will go up in the coming years. The company developing the methane-catching masks hopes that farmers will start using their invention, which will slow down global warming.

2 Read the text and choose the best answers.

Renewable energy is the future

Most of our energy comes from fossil fuels. Burning them increases the amount of greenhouse gas (1) _____ in the atmosphere. If we continue to use fossil fuels the way we do now, we will soon run (2) _____ of them.

Fortunately, we no longer have to depend only on fossil fuels like oil, coal, and natural gas. We can use renewable energy from sources such as wind, rain, waves, and sunlight, which can be replaced (3) _____. In addition, such energy has a low (4) _____ impact. Renewable energy used to be very expensive. In recent years, (5) _____, it has become cheaper and easier to produce thanks to technological advances.

Wind energy is one of the (6) _____ and most sustainable type of energy. It does not release carbon emissions and is entirely renewable as there will always be wind. Solar power is the most (7) _____ source of renewable energy. It exists in large quantities and is freely available. It is also completely renewable as the (8) _____ will keep on shining. Hydropower, a form of renewable energy that uses the force of fast-moving water to produce electricity, is even more reliable than solar or wind power.

There are other types of renewable energy available. In the future, we will need to use more renewable energy (9) _____ to meet our energy needs and reduce the (10) _____ impact of global warming.

1. **A.** sources	**B.** representatives	**C.** fuels	**D.** emissions
2. **A.** across	**B.** into	**C.** out	**D.** away
3. **A.** naturally	**B.** carefully	**C.** normally	**D.** finally
4. **A.** efficient	**B.** environmental	**C.** natural	**D.** careful
5. **A.** however	**B.** in addition	**C.** in short	**D.** actually
6. **A.** dirtiest	**B.** most serious	**C.** cleanest	**D.** biggest
7. **A.** positive	**B.** global	**C.** heavy	**D.** common
8. **A.** rain	**B.** sun	**C.** light	**D.** wind
9. **A.** sources	**B.** challenges	**C.** waves	**D.** activities
10. **A.** active	**B.** effective	**C.** negative	**D.** positive

V | Speaking

1 Complete the conversations by circling the best answers. Then practise reading them.

Conversation 1

Nam: If I (1) were you/was me, I wouldn't burn the dry leaves in the garden. Breathing in smoke can hurt your eyes and make you sick.

Mike: (2) Oh really?/Watch out! I'd better put out the fire.

Conversation 2

Mark: Dad, (3) watch/watch out for the falling tree!

Dad: Oh no! I nearly got hit. (4) Thank/Thanks for the warning.

Conversation 3

Nam: (5) Mind your/Mind you head. The ceiling is very low.

Mai: Don't worry. I'm (6) very careful/very worried.

Conversation 4

Doctor: I must (7) warn you/thank you that the treatment will have side effects.

Patient: I understand. (8) Thanks/Mind for letting me know.

Conversation 5

Mark: I (9) would use/wouldn't use a coal stove inside the house if I were you. Burning coal can cause indoor air pollution.

Mai: Oh, really? I (10) know/didn't know that.

2 Talk about why we should use renewable energy. Use the suggested ideas in the box to help you. You can start your talk with the sentence below.

Renewable energy:
- is clean and free of black carbon; does not pollute the environment.
- comes from natural resources that will never run out.
- can replace fossil fuels; they are freely available and reliable.

'I think we should switch to using renewable energy for the following reasons. First, …'

VI Writing

1 Rewrite the sentences without changing their meanings.

1. Bioenergy as a form of renewable energy comes from natural sources.
   → As a form of renewable energy, _____ sources.

2. We can produce bioenergy from food waste, manure, and other organic substances.
   → Bioenergy _____ food waste, manure, and other organic substances.

3. Bacteria break down these organic substances, and methane is released.
   → These _____ by bacteria, and methane is released.

4. We collect methane, and then use it to produce electricity and heat.
   → After _____, it is used to produce electricity and heat.

5. We can also make methane into biomethane, called renewable natural gas (RNG).
   → Methane _____, called renewable natural gas (RNG).

6. We can use renewable natural gas (RNG) as a vehicle fuel.
   → Renewable _____ used as a vehicle fuel.

7. We use bioenergy, and this limits the amount of methane released into the air.
   → Using _____ methane released into the air.

8. We can reduce our dependence on fossil fuels by using bioenergy.
   → Thanks _____, we can reduce our dependence on fossil fuels.

2 Use the words and phrases below, and add some words where necessary to make meaningful sentences. You may need to change the forms of some verbs.

1. Wave energy / be the energy / come from ocean waves.
   _____.

2. Most ocean waves / be formed as wind / blow over the ocean surface.
   _____.

3. Wave power / be turned into electricity / use special equipment / place on the ocean surface.
   _____.

4. height, length, / speed of waves determine / energy production.
   _____.

5. Oceans cover nearly two thirds / earth's surface, so wave energy / be widely available.
   _____.

6. In addition, this type of energy / be very clean because / not release CO_2 / any harmful gases.

_____.

7. Wave energy / be also renewable and reliable, / never run out as there / always be waves and wind.

_____.

8. In short, wave energy / be renewable and / have fewer effects / the environment.

_____.

3 **Look at the incomplete leaflet. Write two paragraphs of 60–75 words each to complete it. Use the suggested ideas in 1 and 2 to help you.**

TO SAVE OUR PLANET
Use renewable energy as it releases little to no greenhouse gases!

TYPES OF
RENEWABLE ENERGIES

Bioenergy – clean and sustainable!

BIOENERGY

_____
_____
_____
_____
_____
_____
_____

Bioenergy is cheaper than fossil fuels!

From waves to electricity!

_____
_____
_____
_____
_____
_____
_____

Wave energy is our future!

LIVEWORKSHEETS