



DMYTRO MOTORNYI
TAVRIA STATE AGROTECHNOLOGICAL UNIVERSITY

English for Ecology

Viktoriiia Lemeshchenko-Lagoda
Iryna Kryvonos
Viktoriiia Skyba



Viktoriia Lemeshchenko-Lagoda

Iryna Kryvonos

Viktoriia Skyba

ENGLISH FOR ECOLOGY

Навчальний посібник з дисципліни

«Іноземна мова за фаховим спрямуванням (англійська)»

для здобувачів вищої освіти зі спеціальності

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Рецензенти:

Масікевич Ю. – д.б.н., професор, професор кафедри фізіології імені Я.Д. Кіршенבלата Буковинського державного медичного університету, Заслужений працівник освіти України, Член комісії МОН з розробки держстандарту за спеціальністю 101 «Екологія»

Вознюк Н. – к. с.-г. н., професор кафедри екології, технології захисту навколишнього середовища та лісового господарства Національного університету водного господарства та природокористування

Коноваленко Т. – к.п.н., доцент кафедри германської філології та методики викладання Мелітопольського державного педагогічного університету імені Богдана Хмельницького

Сурядна Н. – к.б.н., доцент, завідувача кафедрою екології та інформаційних технологій Мелітопольського інституту екології та соціальних технологій Університету «Україна»

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ПЕРЕДМОВА

Навчальний посібник «English for Ecology» призначено для вивчення дисципліни «Іноземна мова за фаховим спрямуванням (англійська)» здобувачами вищої освіти спеціальності Е2 «Екологія».

Посібник укладено з метою поглиблення та вдосконалення граматичних, лексичних і письмових навичок, отриманих студентами на початковому етапі вивчення англійської мови, а також для розвитку практичних умінь іншомовного листування та опрацювання професійно орієнтованої літератури англійською мовою.

Навчальний посібник складається з восьми розділів та тридцяти двох підрозділів. Джерелом інформації стали сучасні матеріали, запропоновані провідними фахівцями з екології та природокористування, у тому числі матеріали онлайн-видань, офіційних порталів країн Європейського Союзу тощо.

Тематика розділів охоплює широкий спектр актуальних питань — від основ екології, екосистем та біомів до змін клімату, екологічного сліду, проблем забруднення, переробки відходів, принципів циркулярної економіки, сталого розвитку та екологічних політик.

Навчальний посібник «English for Ecology» можна використовувати як для проведення аудиторної, так і для позааудиторної, самостійної роботи у закладах вищої та передвищої освіти.

Автори посібника

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INTRODUCTION TO ECOLOGY

SPEAKING

Task 1. Do you know...

- what is ecology and what does it study?
- what is the purpose of ecology?
- what are the specific tasks of ecology?

Task 2. Read these facts. Which one surprised you the most and why?

1. The biosphere covers about 14% of Earth's surface.
2. Coral reefs make up less than 1% of the ocean but support 25% of marine life.
3. Forests absorb about 30% of carbon dioxide emissions from human activities.
4. The Amazon rainforest produces 20% of the world's oxygen supply.
5. Wetlands store nearly 1/3 of the world's freshwater resources.
6. Urban areas can be up to 5°F hotter than surrounding rural areas.
7. The Earth is home to approximately 8.7 million species of plants and animals.
8. Bees pollinate about 75% of the crops we eat globally!
9. Only 1% of Earth's water is accessible for drinking and irrigation.
10. Climate change could threaten up to 1 million species with extinction by 2050.

VOCABULARY

Task 3. Read and memorize the following words and word-combinations.

abiotic factors	абіотичні чинники
anthropogenic factors	антропогенні чинники
applied ecology	прикладна екологія
autecology	аутекологія (екологія окремих організмів)
biosphere	біосфера
biosphere reserve	біосферний заповідник
biotic factors	біотичні чинники
closed ecological system	замкнена екологічна система
ecology	екологія
ecosystem	екосистема
environmental sustainability	екологічна сталість / сталий розвиток довкілля
environmental tolerance	екологічна толерантність
noosphere	ноосфера
population dynamics	динаміка популяцій
synecology	синекологія (екологія угруповань)

Task 4. Match the terms with their definitions:

abiotic factors, anthropogenic factors, applied ecology, autecology, biosphere reserve, biosphere, biotic factors, closed ecological system, ecology, ecosystem, environmental sustainability, environmental tolerance, noosphere, population dynamics, synecology

- A. The study of individual organisms in relation to their environment.
- B. Human-made influences or actions affecting the natural environment.
- C. The total area of the Earth where life exists, including land, water, and air.
- D. A system that includes all living organisms and their physical environment functioning together.
- E. The balance and ability of ecosystems to remain productive and diverse over time.
- F. The scientific study of relationships among organisms and between organisms and their environment.
- G. The interactions and changes in the size and structure of populations over time.
- H. Physical and chemical non-living components of the environment, like temperature, water, and soil.
- I. Protected areas that promote sustainable development and conservation of biodiversity.
- J. The interactions among species in a community and their environment.
- K. The maximum and minimum limits within which an organism can survive.
- L. Components of the environment that come from living organisms, such as plants and animals.
- M. A theoretical or real-world system isolated from outside environmental factors.
- N. The scientific concept referring to the "sphere of reason" – the influence of human thought on the planet.
- O. The use of ecological knowledge to solve real-world environmental problems.

READING

Task 5. Read the text and mark the statements as True (T) or False (F).

WHAT IS ECOLOGY?

The term 'ecology' (from the Greek *oikos*, meaning home, dwelling, place of residence, and *logos*, meaning science) was first proposed in 1866 by the German scientist E. Haeckel.

Ecology is the science of the habitat of organisms, the relationships between them, their groups and the natural environment in which they live. The subject of ecology is the interrelationships and interactions between the components of the biosphere — species, populations, interacting with inanimate objects — light, air, mineral components (abiotic factors). Together, they form the biosphere — the very home — 'oikos' — that Haeckel had in mind.

Modern ecology can be described by the term 'megalogy', i.e. grand science, based on chemistry, biology, physics, mathematics and the humanities — law, pedagogy, philosophy, political science, sociology and culture.

The structure of modern ecology includes the following main areas: general, special and applied ecology. There are also numerous interdisciplinary sections, such as social ecology and environmental economics.

General ecology studies the organisation of ecosystems, as well as the interaction of biosystems of different levels of integration with each other and the environment. In essence, the structure is divided into four interrelated but, to a certain extent, independent sections:

- *Autecology (ecology of organisms)* studies the relationships between members of a species and their environment. This section of ecology is mainly concerned with determining the limits of a species' stability and its relationship to various environmental factors. Autecology also studies the influence of the environment on the morphology, physiology, and behaviour of organisms.
- *Demecology (ecology of populations)* describes fluctuations in the numbers of different species and establishes their causes. This section is also called population dynamics or population ecology.

- *Synecology (community ecology)* analyses the relationships between individuals belonging to different species within a given community of organisms, as well as between them and their environment.

- *Biospherology (global ecology)* studies the biosphere as a single planetary whole and determines the patterns of its evolution.

Special ecology studies individual groups of organisms: plant ecology, fungal ecology, animal ecology, etc.

Applied ecology studies the impact of humans on the environment, the mechanisms of biosphere destruction, and develops methods to prevent this and ways of rational nature management. It aims to solve practical issues and problems: for example, environmental pollution from industrial emissions or research into the impact of radioactive contamination on living organisms.

1. The word 'ecology' comes from Greek and was introduced by a German scientist in the 19th century.	
2. Ecology only studies living organisms and does not include non-living components.	
3. Modern ecology includes elements from both natural sciences and humanities.	
4. Autecology focuses on relationships between different species in a community.	
5. Demecology studies population changes and their causes.	
6. Applied ecology only deals with natural ecosystems and avoids human-related issues.	
7. Special ecology includes studies like animal ecology and plant ecology.	

Task 6. Read the texts and answer the questions.

BIOSPHEROLOGY – THE STUDY OF THE BIOSPHERE

The word biosphere was first used in 1873 by an Austrian geologist named Suess. He used the word in his book about the Alps, but he didn't explain it as a science at that time.

The biosphere is the part of the Earth where life exists or has existed. It is like a huge global ecosystem. It includes all living things (plants, animals, fungi, bacteria, etc.) and non-living things (like water, soil, air, and sunlight) that help living things survive.

The biosphere includes:

- the top layer of the ground (called the lithosphere),
- the soil (pedosphere),
- water on Earth (hydrosphere), and
- the lower layer of the air (atmosphere).

All these parts are connected to life and its processes. The biosphere supports between 3 to 30 million species of living things — from small bacteria to big animals.

The biosphere is sometimes called the "zone of life" on Earth. Together with the atmosphere (air), hydrosphere (water), and geosphere (rocks), it forms the Ecosphere — the complete system where life is possible.

Life can be found in the deepest ocean (like the Mariana Trench) and in cold or hot places — from the poles to the equator. The biosphere is divided into biomes — large areas with similar life and climate. Examples of biomes are forests or tundras.

Main Parts of the Biosphere

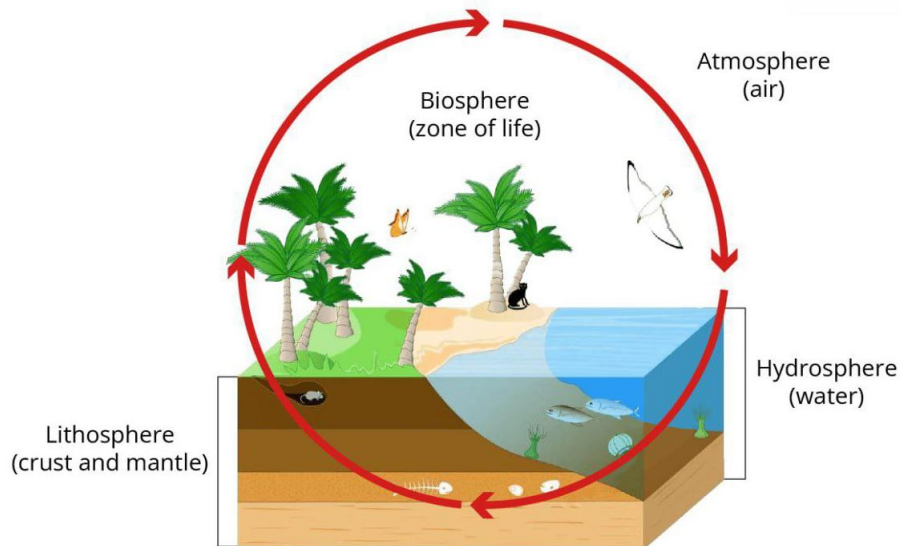
Life exists in many places on Earth — high mountains, deep oceans, hot deserts, and thick jungles. The biosphere has both living and non-living parts:

- Lithosphere – rocks and soil.

- Atmosphere – all the gases around us, like oxygen, nitrogen, and carbon dioxide. It has several layers.

- Hydrosphere – all water on Earth (liquid, solid, and gas).

To survive, all living things need air, water, land, energy, and a suitable temperature.



Biosphere Reserves and the MAB Programme

In the early 1970s, the United Nations started a project called the Man and the Biosphere Programme (MAB). Its goal is to support sustainable development, which means helping people use natural resources without harming nature.

As part of this project, a network of biosphere reserves was created. These are special areas where people and nature live and work together in balance.

Today, there are 563 biosphere reserves around the world. The first biosphere reserve was created in Yangambi, in the Democratic Republic of Congo. This area is in the rich Congo River Basin and has 32,000 types of trees. It is home to rare animals, like the forest elephant (*Loxodonta cyclotis*) and the red river hog (*Potamochoerus porcus*). People in Yangambi grow food, hunt, and mine in sustainable ways.

Biosphere Reserves in Ukraine

Ukraine has five biosphere reserves:

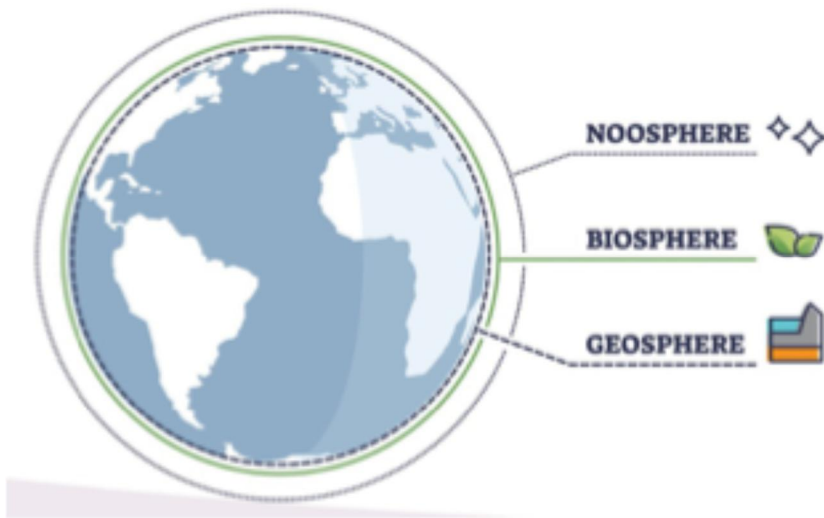
- Askania-Nova Biosphere Reserve (Kherson region)
- Danube Biosphere Reserve (Odesa region)
- Carpathian Biosphere Reserve (Zakarpattia region)
- Chernobyl Radiation-Ecological Biosphere Reserve (Kyiv region)
- Black Sea Biosphere Reserve (Kherson region)

These reserves help protect Ukraine's nature and support activities like research, conservation, and eco-tourism.

1. Who first used the word "biosphere" and in what year?
2. What does the biosphere include besides living things?
3. What are the four main parts of the biosphere mentioned in the text?
4. How many species does the biosphere support, approximately?
5. What is the Man and the Biosphere Programme (MAB) and what is its main goal?
6. Where was the first biosphere reserve created and what are some of its unique features?
7. Name at least three biosphere reserves located in Ukraine.
8. What is the Ecosphere and which spheres does it include?
9. What kinds of environments and climates can life be found in within the biosphere?
10. How do biosphere reserves help people and nature coexist sustainably?

LISTENING

Task 7. Look at the picture and listen to the audio 1.1. What is noospherology?



Task 8. Listen to the audio again and choose the correct answer (A, B, C or D).

1. *Who introduced the idea of the noosphere?*

- A) Charles Darwin
- B) Albert Einstein
- C) Volodymyr Vernadsky
- D) Isaac Newton

2. *What does the word "noosphere" mean?*

- A) The water part of Earth
- B) The layer of rocks
- C) The sphere of human mind and nature
- D) The part of the Earth with only animals

3. *What new force began to change the biosphere, according to Vernadsky?*

- A) Weather
- B) Human mind and science
- C) Volcanoes
- D) The moon

4. *What is needed to solve the environmental crisis?*

- A) More machines
- B) Stronger governments
- C) New relationships between people and society
- D) Better transport

5. *What does the noosphere represent?*

- A) A type of animal habitat
- B) The history of human life
- C) A stage where human thought shapes the planet
- D) An area with rare plants

6. *How should people interact with nature in the noosphere?*

- A) Use it as much as possible
- B) Ignore natural limits
- C) Live in balance with it
- D) Stay away from wild areas

7. *What kind of world does the noosphere aim to create?*

- A) A world with no technology
- B) A world with only cities
- C) A fair and sustainable world
- D) A world with fewer people

8. *What is the name of Ukraine's main research ship?*

- A) Independence
- B) Antarctic
- C) Noosphere
- D) Biosphere

Task 9. Listen to the audio 1.2 and mark the statements True (T) or False (F).



1. An ecological factor is something in the environment that can affect an organism.	
2. Ecological factors have no impact on where organisms live.	
3. Abiotic factors include things like climate and soil.	
4. Biotic factors refer to natural disasters like earthquakes and hurricanes.	
5. Anthropogenic factors are related to human activity.	
6. Organisms can survive under any level of environmental factor influence.	
7. The term "limits of endurance" refers to the range within which an organism can live.	
8. Shelford's law of tolerance explains that each environmental factor has no upper or lower limit of effect.	
9. Non-periodic environmental factors include events like volcanic eruptions.	
10. Directional effects of environmental factors happen quickly and last only a few hours.	

Task 10. Listen to the audio 1.2 again and answer the questions.

1. What is an ecological factor, and how does it affect organisms?
2. What are the three main types of ecological factors?
3. What does the term "limits of endurance" mean in ecology?
4. What is Shelford's law of tolerance?
5. What are the differences between periodic, non-periodic, and directional environmental effects?

WRITING

Task 11. Think about the following:

- How often do you write essays?
- Do you find writing essays difficult or easy to write? Why?

Task 12. Read the writing strategy. Learn how to write an essay using 8 simple steps. Look through the essay structure.

An *OPINION ESSAY* is a short piece of writing that expresses information as well as the writer's opinion [30].

8 steps for a good essay

To write an essay, you should:

- decide what kind of essay to write:

Narrative essay – Tell a story or impart information about your subject in a straightforward, orderly manner, like in a story.

Persuasive essay – Convince the reader about some point of view.

Expository essay – Explain to the reader how to perform a given process.

Descriptive essay – Focus on the details of what is going on.

- brainstorm your topic
- research the topic
- choose a writing style
- develop a thesis
- outline your essay
- write your essay
- edit your writing to check spelling and grammar [30].

Task 13. Write an opinion essay on topic "Why is ecology important in today's world?" (100 – 150 words).

SPEAKING

Task 1. Do you know...

- what is ecosystem?
- what is biome?
- what is biodiversity?

Task 2. Read these facts. Which one surprised you the most and why?

1. There are over 1,500 different ecosystems on Earth today.
2. Tropical rainforests cover only 6% of Earth's land but host 50% of species.
3. The Sahara Desert grows larger by about 30 miles each year.
4. Wetlands filter 50% of pollutants from water, protecting ecosystems.
5. Coral reefs support 25% of ocean life despite covering 1% of ocean floor.
6. Taiga is the largest biome, covering 29% of terrestrial areas on Earth.
7. Some deserts receive less than 3 inches of rain annually.
8. Grasslands, or prairies, once covered 40% of Earth's surface.
9. The Amazon rainforest produces 20% of the world's oxygen supply.
10. Ecosystem services are valued at \$125 trillion globally each year.

VOCABULARY

Task 3. Read and memorize the following words and word-combinations.

biodiversity	біорізноманіття
biome	біом
biotope	біотоп
cycle	цикл
diversity	різноманіття
ecosystem	екосистема
environment	навколишнє середовище
geoecosystem	геоекосистема
invasive species	інвазивні види
living organism	живий організм
loss of natural habitat	втрата природного середовища існування
natural habitat	природне середовище існування
pollution	забруднення
population	популяція
producer	продуцент
species	вид
subspecies	підвид
trophic chain / food chain	трофічний ланцюг / харчовий ланцюг
trophic group	трофічна група
urban ecosystem	міська екосистема

Task 4. Match the terms with their definitions:

biodiversity, biome, biotope, ecosystem, geoecosystem, invasive species, natural habitat, producer, urban ecosystem

- A. a large regional grouping of plant and animal communities adapted to the regional physical characteristics of the environment, climate and landscape; the main types of biomes are terrestrial and aquatic.
- B. the diversity of living organisms on Earth at all levels of organisation of life and in all spatially limited habitats (terrestrial, freshwater, marine).
- C. an area of the Earth's surface with the same relief conditions, climatic characteristics and other abiotic factors occupied by a specific biotic community (biocenosis).
- D. a set of different species of organisms living together and the conditions of their existence, which are in a regular interconnection with each other, forming mutually conditioned biotic and abiotic phenomena and processes.
- E. a complex, integrated, spatial-temporal natural or natural-anthropogenic system, the elements of which are closely interrelated by processes characteristic of them, such as heat and moisture exchange and the biogeochemical cycle of certain types of economic activity.
- F. a functional unity of the living components of a city, their environment and the processes that occur as a result of their interaction with each other and with other components of the urban geosocial system.
- G. organisms that synthesise organic matter from inorganic compounds.
- H.** a non-native plant, animal, fungus, or other organism that has been introduced to an ecosystem (intentionally or accidentally) and begins to spread rapidly, outcompeting native species and disrupting the natural balance of the ecosystem.
- I. the natural environment in which a species lives and grows, providing the conditions and resources it needs to survive, reproduce, and thrive.

READING

Task 5. Read the text and mark the statements as True (T) or False (F).

ECOSYSTEMS

An ecosystem is one of the main concepts in modern ecology. It is the community of living organisms in a certain area together with the conditions in which they live. All parts of an ecosystem are connected by the exchange of matter, energy, and information. The term "ecosystem" was first used in 1935 by the English botanist A. Tansley. It includes not only living organisms but also the physical and chemical factors of their environment.

An ecosystem is a smaller and more specific unit than a biome. In an ecosystem, living things interact with each other and with the environment, creating cycles of matter and flows of energy. A biome is a larger area with a specific climate, plants, and animals. One biome can include many different ecosystems.

In all ecosystems, matter is constantly recycled. Substances that living organisms need are used to build their bodies, and after death, these substances return to the soil, water, or air. Energy flows through the ecosystem, and although ecosystems need a constant energy supply, they can regulate and maintain themselves.

Types of ecosystems

Ecosystems can be very small or very large, up to the size of the whole biosphere. They can be classified by:

Type of nutrition – autotrophic (mainly producers) or heterotrophic (like glacier or deep ocean ecosystems)

Location – terrestrial (land) or aquatic (water)

Human impact – natural or artificial (agricultural, urban, industrial)

The most important natural ecosystems are taiga, tundra, oceans, wetlands, temperate grasslands, temperate forests, tropical rainforests, mountains, islands, and others.

Main characteristics of an ecosystem include species composition, the number of species and populations, biomass, the ratio of trophic groups, and the intensity of production and decomposition of organic matter.

Structure of a typical ecosystem:

- Primary producers (autotrophs)
- Consumers
- Decomposers
- Inorganic substances (CO₂, O₂, H₂O, CaCO₃, etc.)
- Organic substances (proteins, fats, carbohydrates, vitamins, enzymes, etc.)
- Climatic factors (temperature, light, humidity, precipitation, etc.)

The first three components are living organisms, and the last three make up the physical environment in which the ecosystem exists.

1. The term "ecosystem" was first introduced by the English botanist A. Tansley in 1935.	
2. An ecosystem contains only living organisms and does not include the physical environment.	
3. All ecosystems have a cycle of matter and a flow of energy.	
4. Biomes are smaller units that exist within ecosystems.	
5. Ecosystems can be natural, such as forests and oceans, or artificial, such as cities and farms.	
6. Primary producers in ecosystems are also called autotrophs.	
7. Climatic factors like temperature and rainfall are part of the living components of an ecosystem.	

Task 6. Read the text and answer the questions.

Biodiversity

Biodiversity means the variety of all life on Earth — from tiny bacteria to huge whales, including humans. It covers everything from genes to ecosystems, from oceans to the cold Arctic tundra. Scientists have studied biodiversity for many years. The short word “biodiversity” started to be used after the American National Forum on Biodiversity in 1986.

Biodiversity can be seen on several levels:

Genetic diversity – differences in genes within a species. This helps species adapt to changes in the environment and survive over time.

Species diversity – the number of different species living in an area.

Ecosystem diversity – the variety of ecosystems and how they interact.

Functional diversity – the variety of roles or functions that organisms have in an ecosystem, such as pollination or breaking down waste.

The Decline of Biodiversity

Biodiversity is disappearing faster than ever before in human history. The United Nations says that every day one species of plant or animal disappears. Every 8 months, a mammal or bird becomes extinct. Normally, a bird species might live for 2 million years, and a mammal species for 600,000 years — so the current loss is extremely fast.

Since 1900, the number of native species in many land habitats has dropped by at least 20%. One major reason is pollution. For example, marine pollution has increased ten times since 1980, harming hundreds of species, including 86% of sea turtles, 44% of seabirds, and 43% of marine mammals. Other causes include the destruction of land, overuse of species, and climate change.

Why Biodiversity Loss Matters

Species are now disappearing 10 to 100 times faster than normal. This is mostly caused by human activities like deforestation, habitat destruction, and climate change. Losing biodiversity harms important ecosystem services, such as

pollination, clean water, and healthy soil. For example, the loss of wetlands, which clean freshwater, has caused a 35% global decrease since 1970. This has reduced water supply for over 2 billion people and increased waterborne diseases.

Main Causes of Biodiversity Loss

- Loss, damage, and breaking up of natural habitats
- Unsustainable use of resources and land
- Uncontrolled or harmful fires
- Changes to rivers, lakes, and water flow
- Pollution
- Spread of invasive species
- Climate change and extreme weather

1. What does the term “biodiversity” mean?
2. When did scientists start using the short form “biodiversity”?
3. Name two levels of biodiversity mentioned in the text.
4. What is genetic diversity and why is it important?
5. How often, according to the UN, does one species of plant or animal disappear?
6. By how much has marine pollution increased since 1980?
7. Which three groups of marine animals are especially affected by pollution?
8. How much have native species in many land habitats decreased since 1900?
9. What are wetlands important for, and what has happened to them since 1970?
10. List three main causes of biodiversity loss given in the text.

LISTENING

Task 7. Do you know what DDT is? Read short description and then listen to the audio 2.1. to learn about its negative impact.



DDT (4,4'-dichlorodiphenyltrichloromethane) is the most widely used contact organochlorine insecticide in the second half of the 20th century, synthesised in 1883. Paul Müller was awarded the Nobel Prize in Medicine and Physiology in 1948 for discovering its insecticidal properties. DDT was initially used to combat malaria and bubonic plague. DDT was also used to combat pests such as flies, cockroaches and moths. However, despite a number of advantages, its use in most countries around the world began to decline sharply in the 1970s. This was because the negative impact of DDT on the environment and humans was discovered. The use of DDT has been banned in Ukraine since 1997.

Task 8. Listen to the audio again and choose the correct answer (A, B, C or D).

1. *Why is biodiversity important according to the text?*

- A) It helps control only plant species
- B) It makes the planet more habitable
- C) It reduces human population
- D) It prevents house damage

2. *What was Indonesia trying to eliminate?*

- A) Rats and plague
- B) Mosquitoes and malaria
- C) Caterpillars and cockroaches
- D) Lizards and cats

3. *What pesticide was used in Indonesia?*

- A) DDT
- B) TNT
- C) PVC
- D) GMO

4. *How did DDT affect cockroaches?*

- A) It killed all of them instantly
- B) It made them reproduce faster
- C) It slowed them down
- D) It made them avoid lizards

5. *Why did lizards become easy prey for cats?*

- A) They were poisoned and had weaker reflexes
- B) Cats became faster and stronger
- C) They stopped hiding in reeds
- D) There were fewer insects to eat

6. *What was the result of the mass death of lizards?*

- A) More mosquitoes appeared
- B) Caterpillars multiplied and damaged house roofs
- C) Cats became more aggressive
- D) Rats disappeared from the island

7. *Why did the rat population increase?*

- A) There was more food for them
- B) Cats died from DDT poisoning
- C) Lizards started eating rats
- D) Mosquitoes carried rat diseases

Task 9. Listen to the audio 2.2 and mark the statements True (T) or False (F).



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1. The bald eagle is the national symbol of the USA.	
2. By 1963, there were about 5,000 pairs of bald eagles in the United States.	
3. DDT was banned in the USA in 1972.	
4. The Endangered Species Act was introduced in 1983.	
5. The bald eagle moved from the "endangered" list to the "threatened" list in 1995.	
6. The bald eagle was removed from the threatened list in 2007.	
7. Illegal hunting was one of the reasons for the decline in bald eagle numbers.	

Task 10. Listen to the audio 2.2 again and answer the questions.

1. What is the national symbol of the USA?
2. How many pairs of bald eagles were left in 1963?
3. What were the main reasons for the decline in bald eagle numbers?
4. In what year was DDT banned in the USA?
5. What is DDT and why was it harmful to bald eagles?

WRITING

Task 11. Think about the following:

- How often do you read blogs?
- Have you got your own blog?
- What is it about?

A *BLOG* (a shortened version of “weblog”) is an online journal or informational website displaying information in reverse chronological order, with the latest posts appearing first, at the top. It is a platform where a writer or a group of writers share their views on an individual subject.

Task 12. Read the writing strategy. Do you find writing blogs difficult or easy? Why?

How to Write a Blog Post

1. Address a compelling topic. (The most popular posts address a compelling topic that will appeal to your target audience.)
2. Come up with a great post title. (Come up with a catchy title that will hook readers and make them want to read your article.)
3. Outline your post. (Decide how you want to lay out your ideas and outline your post in order to walk readers through your thought process and help them relate to your point of view.)
4. Explain your connection to the topic. (Bloggers connect with their audience and produce great content by making their blog writing personal and demonstrating a connection with their blog content.)
5. Use a clear layout. (Make sure your post is laid out in a clear and visually clean way to help readers follow along with your thoughts.)
6. Propose solutions. (It’s important to have a clear point of view in your blog posts and wrap up posts with a clear conclusion or solution to a problem you’ve focused on.)

7. Consider search engine optimization. (Make sure that your page SEO is up to snuff in order to get clicks on your articles and bring new readers to your page.)
8. Proofread. (It's not enough to focus on search engine optimization or designing a flashy infographic for your homepage; professional bloggers should take pains to make sure their posts are free from typos and careless errors.)
9. Promote your writing. (Consider appearing on a podcast, starting an email list, or guest blogging on a related blog as ways to promote your own work. Content marketing is a hugely important part of being a successful blogger.)
10. Write from the heart. (Writing blog posts that you feel passionately about will help readers connect with your work and grow your audience base.)

Task 13. Read the following blog post and write a comment.

Why Ecosystems Matter to Us All

Have you ever wondered how much your life depends on nature? From the air we breathe to the food we eat, it all comes from healthy ecosystems.

An ecosystem is a community of plants, animals, and microorganisms living together with air, water, and soil. They are connected through the flow of energy and the cycle of nutrients. Ecosystems can be tiny, like a pond, or huge, like a rainforest or the ocean.

Ecosystems give us clean air and water, food, climate balance, and homes for wildlife. But pollution, deforestation, and climate change can damage them, putting both nature and people at risk.

I saw this in my own life. I grew up near a river, but over the years, pollution reduced the fish population. It showed me how fragile nature is.

We can help by reducing waste, planting trees, saving water, and supporting conservation. Healthy ecosystems mean a healthy future — for all living things, including us.

SPEAKING

Task 1. Do you know...

- What is climate change?
- How does climate change affect the weather?
- What can people do to help stop climate change?

Task 2. Read these facts. Which one surprised you the most and why?

1. Climate change can cause sea levels to rise by up to 3 feet by 2100.
2. Ice in the Arctic is melting at a rate of 13 percent per decade.
3. The past seven years were the hottest on record globally.
4. Over 1 million species face extinction due to habitat loss and climate change.
5. Carbon dioxide levels are now higher than they have been in 800,000 years.
6. Extreme weather events are increasing by 80% since the 1970s.
7. Deforestation contributes approximately 15% of global greenhouse gas emissions.
8. 70% of coral reefs could die by 2030 without urgent action.
9. Climate change could displace up to 200 million people by 2050.
10. Renewable energy jobs have grown by 11% annually over the last decade.

VOCABULARY

Task 3. Read and memorize the following words and word-combinations.

anthropogenic emissions	антропогенні викиди
carbon (climate) balance	вуглецева (кліматична) рівновага
carbon neutrality	вуглецева нейтральність
climate change	зміна клімату
climate migrants	кліматичні мігранти
climate refugees	кліматичні біженці
earth's surface heat balance	тепловий баланс земної поверхні
emission reduction	зменшення викидів
fossil fuel	викопне паливо
global warming	глобальне потепління
greenhouse effect	парниковий ефект
greenhouse gases	парникові гази
mitigation	мітігація (зменшення викидів)
ocean acidification	окислення океану (закислення океану)
sea level rise	підвищення рівня моря

Task 4. Match the terms with their definitions:

anthropogenic emissions, carbon neutrality, climate refugees, earth's surface heat balance, fossil fuel, greenhouse effect, greenhouse gases, mitigation, ocean acidification, sea level rise

A. non-renewable energy sources formed from the organic matter of plants and microorganisms that lived millions of years ago. This energy was originally captured through photosynthesis by living organisms such as plants, algae and photosynthetic bacteria.

B. greenhouse gas emissions resulting from human activities such as fossil fuel combustion, industry, agriculture and deforestation.

C. the process of lowering the pH of seawater, mainly caused by the absorption of carbon dioxide (CO₂) from the atmosphere.

D. means that any carbon dioxide emissions into the atmosphere as a result of human activity are offset by its removal, for example, through absorption by forests or oceans, or through artificial carbon capture and storage systems.

E. actions aimed at reducing or preventing greenhouse gas emissions, as well as increasing carbon sinks (e.g. forests).

F. people who are forced to leave their homes due to the effects of climate change (e.g. flooding, droughts).

G. gases in the planet's atmosphere that are capable of strongly absorbing infrared radiation, causing the greenhouse effect.

H. an increase in the average water level in the world's oceans caused by global warming and other climate changes. It occurs as a result of the melting of glaciers and ice sheets, as well as the thermal expansion of water when it heats up.

I. the gradual warming of the planet's climate as a result of the accumulation of anthropogenic carbon dioxide and other gases (methane, fluorocarbons and chlorocarbons) in the atmosphere, which, like the closed glass of a car, allow sunlight to pass through but prevent infrared (heat) radiation from escaping from the Earth's surface.

J. the algebraic sum of heat flows entering and leaving the Earth's surface. It is expressed by the equation: $R + P + LE + B = 0$, where R is the radiation balance of the Earth's surface; P is the turbulent heat flow between the Earth's surface and the atmosphere; LE is the heat expenditure for evaporation; B is the heat flow from the Earth's surface into the soil or water and back.

READING

Task 5. Read the text and mark the statements as True (T) or False (F).

GLOBAL WARMING AND CLIMATE CHANGE

The terms '*global warming*' and '*climate change*' are often used interchangeably, but they have different meanings and refer to different phenomena.

Global warming is a long-term increase in the Earth's average temperature caused by excessive emissions of greenhouse gases, particularly carbon dioxide (CO₂) and methane (CH₄). These gases trap heat in the atmosphere, acting as a 'thermal blanket' covering the planet. The main cause of this increase is the burning of fossil fuels — oil, coal and natural gas — for energy production, transport and industry. As a result, heat that would normally be released back into space is trapped, disrupting the natural balance between incoming solar radiation and heat leaving the planet. According to numerous scientific studies and measurements conducted since 1880, the average global temperature has risen by approximately 1.28 °C (2.3 °F) in the period up to 2024. This figure is unprecedented in the history of observations. Analysis of the isotopic composition of carbon dioxide in the atmosphere confirms that the main source is emissions from the burning of fossil fuels. [39]

Climate change is a broader term that encompasses long-term changes in various climate indicators, such as temperature, precipitation, winds, and extreme weather events, occurring at the global and local levels. Climate change manifests itself differently in different regions. For example, in the 20th century, the United States as a whole became wetter, while the Sahel region of Central Africa became drier. Local changes include changes in the seasonality and intensity of precipitation, leading to rarer but more intense storms, increased soil erosion, and an increased risk of floods and droughts. One example is the Sierra Nevada in the United States, where global warming is reducing snow cover, threatening water resources and increasing the risk of forest fires. [39]

In general, climate change is causing an increase in the frequency and intensity of extreme weather events, from severe hurricanes and floods to droughts and forest fires.

According to the European Copernicus Climate Service, between 2015 and 2024, the average global temperature was 1.28 °C higher than in the pre-industrial period (late 19th century). At the same time, according to the British Meteorological Service, every decade since the 1980s has been warmer than the previous one. The year 2024 was the hottest in the history of meteorological observations. The main factor behind the record high temperatures was climate change caused by anthropogenic factors. [40]

It is worth noting that the 1.5 °C warming threshold, which was considered critical for avoiding the most dangerous consequences of climate change, was exceeded in 2024. This underscores the urgent need for active mitigation — reducing greenhouse gas emissions and transitioning to renewable energy sources.

1. Global warming and climate change mean exactly the same thing.	
2. Burning fossil fuels like oil and coal releases greenhouse gases that trap heat in the atmosphere.	
3. Since 1880, the Earth’s average temperature has risen by about 1.28 °C.	
4. Climate change only refers to changes in temperature worldwide.	
5. The Sahel region in Central Africa has become wetter during the 20th century.	
6. The year 2024 was the hottest year recorded in history.	
7. The critical warming limit of 1.5 °C was exceeded in 2024, highlighting the need to reduce greenhouse gas emissions.	

Task 6. Read the text and answer the questions.

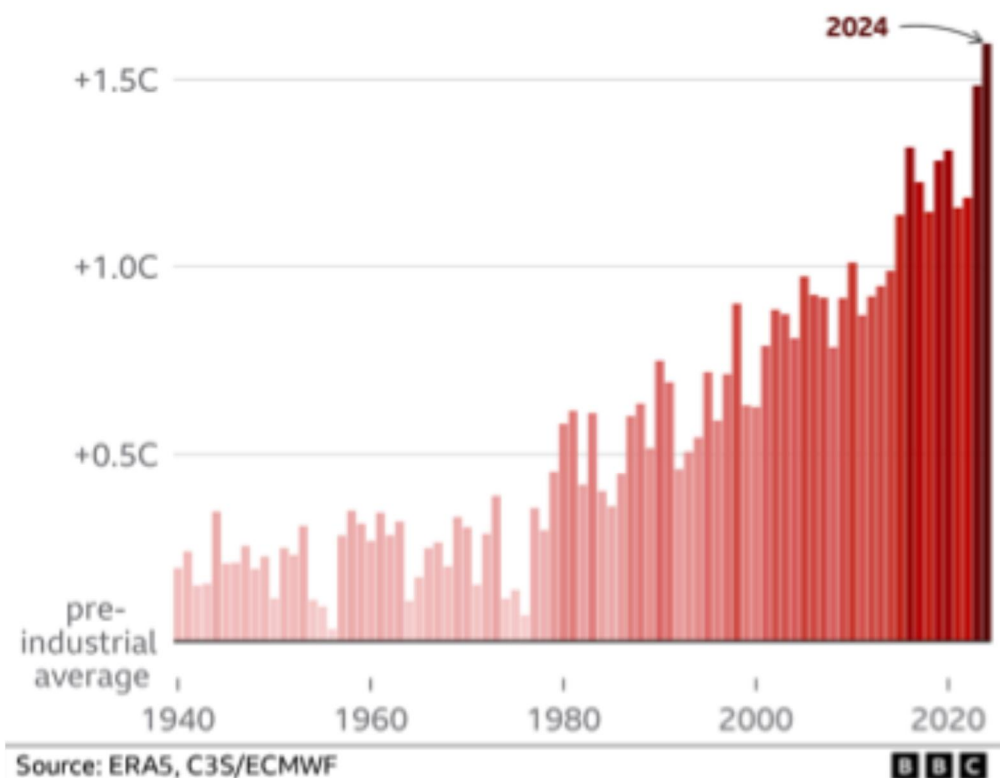
HOW ARE HUMANS CAUSING CLIMATE CHANGE?

The climate has changed naturally many times in Earth's history. But now, humans are causing faster changes. The main reason is burning fossil fuels like coal, oil, and gas in homes, factories, and cars. When these fuels burn, they release greenhouse gases, mainly carbon dioxide (CO₂). CO₂ works like a blanket that traps heat near the Earth's surface, making the planet warmer.

Since the Industrial Revolution, when people started using a lot of fossil fuels, the amount of CO₂ in the air has grown by about 50%. This is much higher than normal levels in recent Earth history. [40]

2024 was the hottest year on record

Global average temperature by year, compared with the pre-industrial average, 1850-1900



What effects of climate change have already been seen?

Climate change is already changing the environment in many ways:

- More frequent and stronger extreme weather, like heatwaves and heavy rain.
- Fast melting of glaciers and ice sheets, which makes sea levels rise.
- Large losses of Arctic sea ice.
- Warmer oceans that can create stronger storms and harm sea life, such as coral reefs.

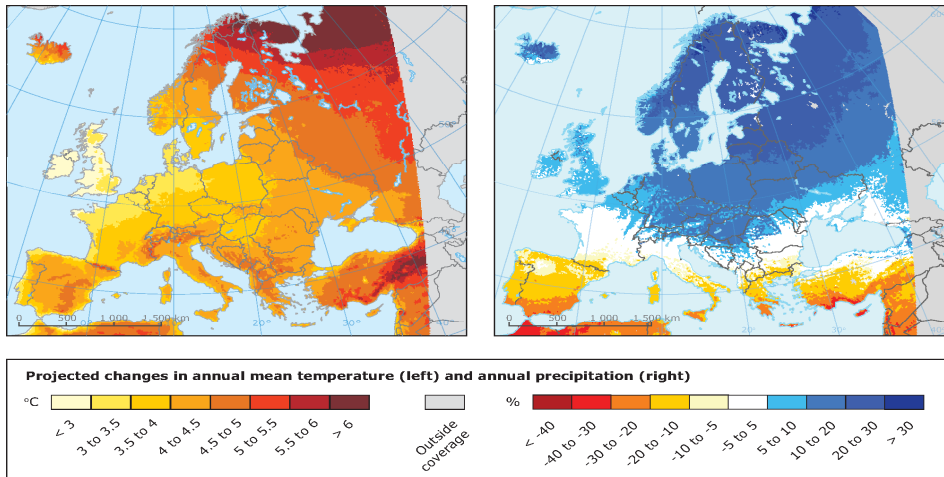
These changes affect people and economies worldwide. For example, Hurricanes Helene and Milton hit parts of the US in late 2024. Each storm might cause damage costing over \$50 billion. Helene killed more than 200 people, and Milton killed at least 16. Scientists say climate change made the storms stronger.

In 2022, East Africa had its worst drought in 40 years, putting more than 20 million people at risk of hunger. Climate change made this drought at least 100 times more likely, according to scientists.

1. What are the main human activities causing climate change?
2. How does carbon dioxide (CO₂) affect the Earth's temperature?
3. When did the amount of CO₂ in the atmosphere start to rise quickly?
4. Name two examples of extreme weather caused by climate change.
5. What happens to glaciers and ice sheets because of climate change?
6. How do warmer oceans affect storms?
7. How much damage did Hurricanes Helene and Milton cause in 2024?
8. How many people died because of Hurricane Helene?
9. What was the effect of the 2022 drought in East Africa?
10. Why are some communities affected more by climate change than others?

LISTENING

Task 7. Look at the picture and listen to the audio 3.1. How will future climate change affect the world?



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Task 8. Listen to the audio again and choose the correct answer (A, B, C or D).

1. Why is it important to keep the global temperature rise below 1.5°C?

- A) Because it will cause no changes to the climate
- B) Because warming above 1.5°C will cause much worse damage
- C) Because 1.5°C is the current global temperature
- D) Because 1.5°C is the temperature during the Industrial Revolution

2. What did almost 200 countries agree on in the Paris Agreement in 2015?

- A) To stop all industrial activities
- B) To limit global warming to 1.5°C
- C) To increase fossil fuel use
- D) To keep the temperature rise at 2°C

3. What is the difference between a 1.5°C and 2°C rise in extreme hot days in mid-latitude regions?

- A) Extreme hot days would be 1°C hotter at 2°C warming
- B) Extreme hot days would be 3°C hotter at 2°C warming
- C) Extreme hot days would be 4°C hotter at 1.5°C warming
- D) Extreme hot days would be 4°C hotter at 2°C warming and 3°C hotter at 1.5°C warming

4. How much higher could sea levels rise with 2°C warming compared to 1.5°C?

- A) About 1 meter
- B) About 0.1 meters (10 centimeters)
- C) About 5 centimeters
- D) Sea levels would not rise

5. What could happen to coral reefs if the temperature rises by 2°C?

- A) 70–90% could be lost
- B) More than 99% could be lost
- C) Coral reefs will grow larger
- D) Coral reefs will not be affected

6. How will a 2°C temperature rise affect plants and animals compared to 1.5°C?

- A) Half as many will be affected at 2°C
- B) Twice as many will face unsuitable climates at 2°C
- C) No change in the number of affected species
- D) All plants and animals will survive

Task 9. Listen to the audio 3.2 and mark the statements True (T) or False (F).



1. About 3.6 billion people live in areas very vulnerable to climate change.	
2. Climate change will not cause any extra deaths between 2030 and 2050.	
3. Undernutrition means not getting enough food or nutrients.	
4. Malaria is a disease that spreads through contaminated water.	
5. Diarrhea is often caused by unsafe water.	
6. Heat stress is a health problem caused by very low temperatures.	
7. The direct costs for health problems caused by climate change could be up to 4 billion US dollars per year by 2030.	
8. The costs mentioned include farming and water supply sectors.	
9. Health is connected to other sectors like food and water.	
10. The real costs and impacts of climate change on health could be higher than currently estimated.	

Task 10. Listen to the audio 3.2 again and answer the questions.

1. How many people currently live in areas vulnerable to climate change?
2. What is the expected number of extra deaths caused by climate change each year between 2030 and 2050?
3. What does undernutrition mean?
4. What causes heat stress?
5. How much could direct health costs related to climate change be by 2030?

WRITING

Task 11. Think about the following:

- How often do you read manuals?
- Do you think the manuals are important? Why?

A MANUAL is a detailed guide or instruction book that provides information on how to properly use, maintain, and troubleshoot the instrument.

Task 12. Read the writing strategy. Do you find writing manuals difficult or easy? Why?

How to Write a Manual

1. Know Your Audience

Consider the user's degree of experience with the instrument. Are they a student, field technician, or climate scientist? This will determine the level of technical detail and terminology you use.

2. Create a Table of Contents

Organize your manual in a logical sequence, starting with the most general information and working up to more detailed sections.

Include sections such as:

Introduction

Safety Precautions

Instrument Overview

Setup Instructions

How to Use

Maintenance & Care

Troubleshooting

Technical Specifications

FAQs

Contact Information (for support)

3. Write an Introduction

Provide a brief description of the instrument, including its purpose, key features, and any essential safety details.

Example:

“This is the installation and user guide for the GHG-3000 Portable Greenhouse Gas Analyzer, designed for accurate measurement of CO₂, CH₄, and N₂O concentrations in field and laboratory settings. The instrument provides high-precision readings for climate change research and environmental monitoring.”

4. Safety Precautions

State all risks and safety guidance connected with using the instrument.

Example:

“Always operate the analyzer in well-ventilated areas when measuring gases from concentrated sources. Avoid exposing the sensor to excessive humidity or dust. Never attempt to open the sealed sensor chamber, as this may damage the calibration.”

5. Instrument Overview

Describe the components and functions of the analyzer, preferably with labeled diagrams or photos.

Example:

“The analyzer has the following components: Main body with LCD display, Air intake port, Gas sampling tube connection, Battery compartment, USB data port, Calibration control panel”

6. Setup Instructions

Provide clear steps for preparing the analyzer for operation.

Example:

Attach the gas sampling tube securely to the intake port.

Insert fully charged lithium-ion batteries into the battery compartment.

Turn on the device by pressing and holding the power button for three seconds.

Wait for the initial warm-up period (approx. 2 minutes) before starting measurements.

7. How to Use

Provide step-by-step instructions for typical measurement scenarios.

Example:

“To measure ambient CO₂ concentration: Place the analyzer in the target location at breathing height (about 1.5 meters above ground).

Ensure there are no direct sources of exhaust or smoke nearby.

Press the ‘Start Measurement’ button.”

8. Maintenance & Care

Provide directions for cleaning, calibration, and storage.

Example:

“Clean the exterior with a soft, damp cloth. Do not use solvents or alcohol on the display screen. Calibrate the sensors every 6 months using certified gas standards. Store the analyzer in its protective case in a dry, cool environment when not in use.”

9. Troubleshooting

List common issues and solutions.

Example:

Problem: No reading appears.

Solution: Check battery level and ensure the sampling tube is connected correctly.

10. Technical Specifications

Provide essential performance details.

Example:

Measured gases: CO₂, CH₄, N₂O

Range: CO₂ 0-2000 ppm, CH₄ 0-50 ppm, N₂O 0-5 ppm

Accuracy: ±2% of reading

Response time: <5 seconds

Power source: Rechargeable lithium-ion battery, 12 hours continuous use

Data output: USB and SD card

11. FAQs

Example:

Q: Can the analyzer be used in high-humidity environments?

A: Yes, but prolonged exposure to humidity above 90% may affect sensor performance. Use with caution and store in dry conditions.

12. Contact Information

Example:

*"For technical support, visit our website or contact us at support@tools.com.
Phone: +1-555-123-4567."*

13. Review & Test

After writing the manual, review it for clarity and technical accuracy. Have a person unfamiliar with the analyzer follow the instructions to ensure usability.

Task 13. Write your own user manual for any piece of environmental monitoring equipment (100 - 150 words):

- Use short sentences and short paragraphs.
- Arrange your points in logical order.
- Make your statements specific.
- Use the imperative mood.

SPEAKING

Task 1. Do you know...

- What is ecological footprint?
- Have you ever calculated your ecological footprint?
- What can people do to reduce it?

Task 2. Read these facts. Which one surprised you the most and why?

1. The concept of 'ecological footprint' was introduced in the 1990s by William Rees and Mathis Wackernagel to measure the impact of humans on nature.
2. It is measured in global hectares (gha) — a unit that shows how much land and water area is needed to meet our needs and absorb waste.
3. Humanity is living 'on credit': today we consume approximately 1.7 Earths per year, meaning that resources are being depleted faster than they can be replenished.
4. Food has a big impact on our footprint: the production of meat and dairy products creates a much larger ecological footprint than growing plant-based foods.
5. Transport is a key factor: fossil fuel-powered cars increase the carbon component of our ecological footprint.
6. Waste is part of the footprint: the more waste we create and the less we recycle, the greater our impact on nature.
7. Countries vary greatly: for example, the average ecological footprint in the United States is over 8 gha per person, while in India it is about 1 gha.

VOCABULARY

Task 3. Read and memorize the following words and word-combinations.

biocapacity
carbon footprint
ecological deficit
ecological footprint
ecological reserve
great acceleration
natural resource management

overconsumption
resource consumption
resource use
water footprint

біоемність
вуглецевий слід
екологічний дефіцит
екологічний слід
екологічний резерв
велике прискорення
управління
природокористуванням
надспоживання
ресурсоспоживання
ресурсовикористання
водний слід

Task 4. Match the terms with their definitions:

biocapacity, carbon footprint, ecological deficit, ecological reserve, natural resource management, overconsumption, resource consumption, resource use, water footprint

- A. the regenerative capacity of our planet's ecosystems. It tracks the ecosystem's inherent ability to restore biomass.
- B. the volume of water required to produce goods and services. It is usually applied to water consumers (individuals, organisations, countries) and takes into account the source of water consumption, as well as the time and intensity of consumption.
- C. part of the ecological footprint that reflects the amount of greenhouse gas emissions (mainly CO₂) associated with human activity.
- D. the direct use of natural resources by humans to meet their economic needs.

E. a situation where the ecological footprint exceeds the biocapacity, meaning that a region or country consumes more resources than it can renew, leading to the depletion of natural capital.

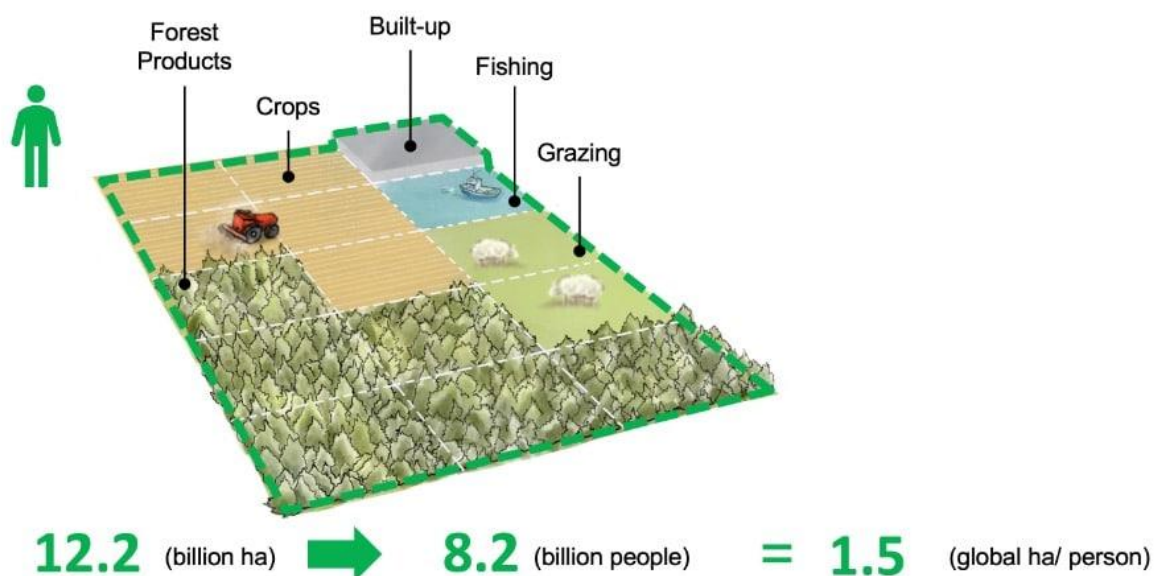
F. measures that, when implemented, will change natural phenomena and processes (enhance or limit them) in a direction desirable to humans.

G. a situation in which biocapacity exceeds the ecological footprint, indicating sustainable use of resources.

H. a global situation in which humanity's cumulative ecological footprint exceeds the Earth's biocapacity, meaning that we are using resources faster than they can be replenished.

I. the use of resources without removing them from the natural environment.

Our biocapacity per person in the world (2025)



Source: <https://www.footprintnetwork.org/what-biocapacity-measures/>

READING

Task 5. Read the text and mark the statements as True (T) or False (F).

THE ERA OF 'GREAT ACCELERATION'

Today, the resource problem is caused by a significant excess of the permissible load on ecosystems that support the stability of physical conditions on Earth.

The industrial complex uses only a small portion of the extracted natural resources. The lion's share (according to some estimates, from 90% to 95%) is returned to nature, but in a much more toxic and unregulated state, causing the destruction of natural systems.

According to the WWF Living Planet Report, the rate of human use of the planet's resources in the 20th century has grown at an incredibly rapid pace (Fig. 1). We are living in a time of 'Great Acceleration' — a unique event in the 4.5 billion-year history of our planet. Right now, population growth and economic growth are causing unprecedented changes to the planet, as they drive ever-increasing demand for energy, land and water [42].

The Great Acceleration, and the rapid and immense social, economic and ecological changes it has spurred, show us that we are in a period of great upheaval. Some of these changes have been positive, some negative, and all of them are interconnected. What is increasingly clear is that human development and wellbeing are reliant on healthy natural systems, and we cannot continue to enjoy the former without the latter [42].

ECOLOGICAL FOOTPRINT

How objective are the grounds for concern among the global community about the problems of the global ecological crisis and climate change?

This question preoccupied Canadian ecology professor William Rees. It was he, together with ecologist Mathis Wackernagel, who proposed and developed the concept of calculating the ecological footprint in the 1990s. This indicator is

designed to measure humanity's demand for natural resources and compare it with the planet's biocapacity, i.e. nature's ability to meet these needs and absorb waste.

The ecological footprint is an indicator of human demand on ecosystems, or more precisely, on the planet's biocapacity. It tracks the mutually exclusive, biologically productive area needed to restore human demand for nature's products and services.

In other words, it is the land and water area that the human population needs to obtain the renewable resources it consumes and to absorb the corresponding waste it produces, using prevailing technologies. In other words, it measures the 'amount of nature' we use and compares it to how much 'nature' actually has.

You can try calculating your ecological footprint yourself: [calculator](#)

1. The industrial complex uses most of the extracted natural resources directly, without returning them to nature.	
2. According to some estimates, 90–95% of extracted resources are returned to nature in a more toxic and unregulated state.	
3. The term "Great Acceleration" refers to the slow and gradual changes in Earth's ecosystems over millions of years.	
4. Human wellbeing depends on the health of natural systems.	
5. William Rees and Mathis Wackernagel introduced the ecological footprint concept in the 1990s.	
6. The ecological footprint measures the biocapacity of ecosystems but does not compare it to human demand.	
7. The ecological footprint considers both the resources humans consume and the waste they produce.	

Task 6. Read the text and answer the questions.

IS THE ECOLOGICAL FOOTPRINT OF DIFFERENT COUNTRIES THE SAME?

The 'ecological footprint' indicator characterises the average area of our planet (in global hectares) per capita (or per unit of production) required to provide the necessary natural resources and dispose of (absorb, bury, clean) the waste generated. According to a report by the non-profit organisation Global Footprint Network and the World Wildlife Fund (WWF) [42], for the past 40 years, humanity's consumption of natural resources has exceeded the Earth's capacity to reproduce them. According to estimates by these organisations, in order to reproduce all the resources consumed by humans, it is necessary to use natural resource potential that is one and a half times greater than the capacity of planet Earth. To be precise, today the average 'ecological footprint' per capita is close to 2.6 global hectares, while the planet's biopotential capacity is 1.7 hectares per capita (Global Footprint). This means that the permissible load on the planet's ecosystems is exceeded by more than 50%. With such an excessive load, ecosystems not only begin to perform their functions of reproducing natural resources and cleaning up pollution less effectively, but also begin to collapse under the influence of eco-destructive pressures, which in turn leads to a further slowdown in their functional activity.

For the record, Ukraine has an 'ecological footprint' per person of 3.2 hectares. This is less than in China (3.5 hectares), the United States (7.5 hectares) and Canada (8.4 hectares).

1. What does the 'ecological footprint' indicator measure?
2. In what units is the ecological footprint expressed?
3. Which organisations provided the data mentioned in the text?
4. How long has humanity been consuming natural resources faster than the Earth can replenish them?

5. How many times greater is the natural resource potential required compared to the Earth's capacity to reproduce resources?
6. What is the current average ecological footprint per capita worldwide?
7. What is the planet's biopotential capacity per capita?
8. By what percentage is the permissible load on Earth's ecosystems exceeded?
9. What is Ukraine's ecological footprint per person?
10. Which country mentioned in the text has the highest ecological footprint per capita?



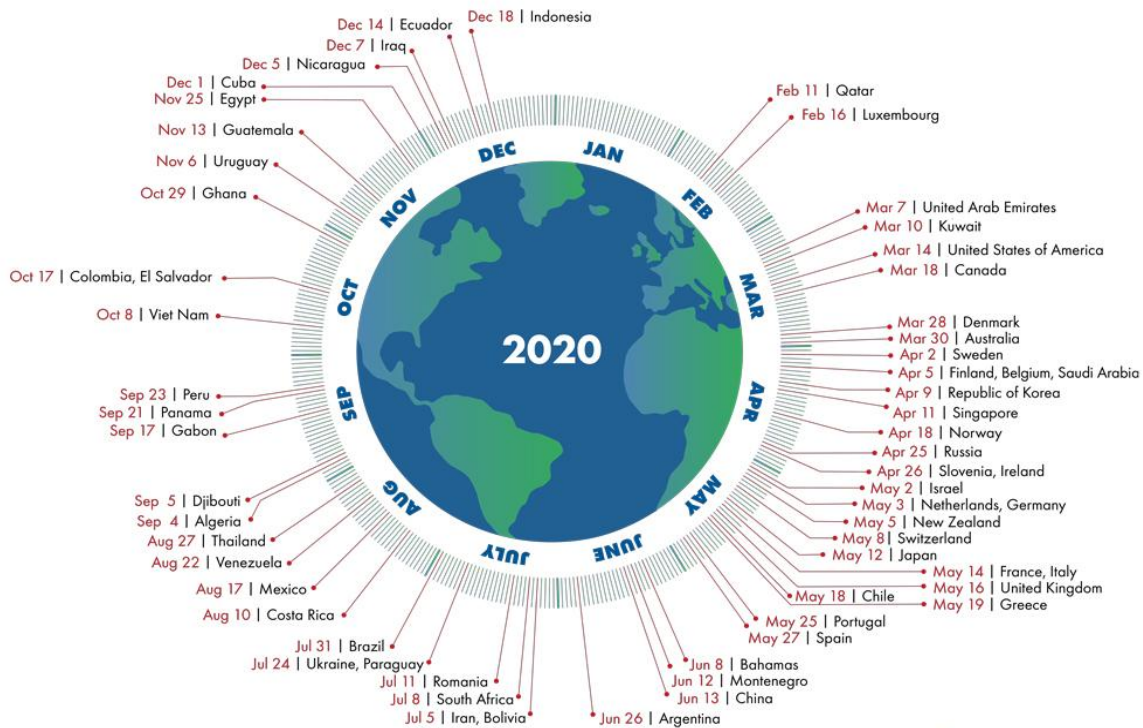
LISTENING

Task 7. Look at the picture and listen to the audio 4.1.
What is Country Overshoot Day?



Country Overshoot Days 2020

When would Earth Overshoot Day land if the world's population lived like...



Source: Global Footprint Network National Footprint and Biocapacity Accounts 2019



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Task 8. Listen to the audio again and choose the correct answer (A, B, C or D).

1. What does Earth Overshoot Day represent?

- A) The day Earth's rotation slows down
- B) The date when humanity's resource use exceeds Earth's annual capacity
- C) The start of the calendar year
- D) The day when CO₂ emissions peak

2. How many planets like Earth does humanity currently need to meet its demands?

- A) 1.25
- B) 1.5
- C) 1.75
- D) 2

3. Since what year has the Earth Overshoot Day indicator been calculated?

- A) 1986
- B) 1993
- C) 2003
- D) 1970

4. In which year was Earth Overshoot Day recorded on 29 December?

- A) 1986
- B) 1970
- C) 1993
- D) 2021

5. When was Earth Overshoot Day in 2025?

- A) 29 July
- B) 24 July
- C) 13 August
- D) 2 August

6. Which of the following years had Earth Overshoot Day on 2 August?

- A) 2015
- B) 2017
- C) 2021
- D) 2003

7. What percentage of the world's population lives in countries running an ecological deficit?

- A) More than 50%
- B) More than 60%
- C) More than 70%
- D) More than 80%

8. What is a Country Overshoot Day?

- A) The date a country reaches its annual CO₂ target
- B) The day a country's ecosystems collapse
- C) The date when the planet's annual biocapacity would be used up if everyone lived like that country's residents
- D) The anniversary of Earth Overshoot Day

9. In which year was Earth Overshoot Day recorded on 13 August?

- A) 2015
- B) 2017
- C) 2021
- D) 2003

10. According to the text, how is humanity currently using resources?

- A) At the same rate as they are replenished
- B) Much slower than they can be replenished
- C) Much faster than they can be replenished
- D) Only natural renewable resources

Task 9. Listen to the audio 3.2 and mark the statements True (T) or False (F).



1. The rate of degradation of the planet's ecosystems is decreasing.	
2. Humanity is consuming resources faster than they can be replenished.	
3. Earth Overshoot Day marks the start of the calendar year.	
4. According to the Global Footprint Network, humanity currently needs about 1.75 Earths to meet its demands.	
5. The Earth Overshoot Day indicator has been calculated since 1986.	
6. In 1970, Earth Overshoot Day was on 29 December.	
7. In 2025, Earth Overshoot Day is projected to fall on 24 July.	
8. In 2017, Earth Overshoot Day was recorded on 13 August.	
9. More than 80% of the world's population lives in countries with an ecological deficit.	
10. Country Overshoot Day is the same for all countries regardless of consumption levels.	

WRITING

Task 10. Think about the following:

- Have you ever written leaflets?
- Do you know their purpose?

A *LEAFLET* is a small sheet of printed paper that gives clearly and concisely some kind of information. Businesses use leaflets to advertise their products and services. They're often also used to let people know about new trends, special offers, events or very important social issues.

Task 11. Read the writing strategy. Do you find writing leaflets difficult or easy? Why?

Leaflets must

- be aimed at the right audience and for the right purpose;
- look attractive and be easy to read;
- have headings with different sizes and styles of writing;
- include all the relevant facts in a logical and clear way;
- attempt to persuade the reader to do something using slogans or persuasive language;
- include illustrations to catch the readers' attention, but not too many.

Do & Don't

- Use illustrations
- Use headings + subheadings
- Make paragraphs

x Write lots of 1 sentence paragraphs

x Use too many bullet points

Task 12. Look at this leaflet and say what improvements it needs.

Activists in the fight against climate change



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Around the world, individuals are leading the fight against climate change; calling on their governments and corporations to take action to protect our planet and ensure we all have a safe place to call home. [24]

Ilyess El Korbi. Born in Ukraine, Ilyess grew up in Morocco, moving back to Ukraine when they were 14-years-old. When Ilyess wanted to take part in climate movement protests in 2019, they discovered that none had yet been registered in Ukraine. Together with friends, they changed this and Ilyess is now the board secretary of Fridays For Future Ukraine. [24]

When the war broke out in Ukraine, Ilyess was in Kyiv and fortunately was able to flee to Berlin a short time after. Together with other climate activists in Germany, they are now raising awareness about the situation in Ukraine and the climate crisis. [24]

"It's not just about Ukraine anymore. It's about Syria and other countries around the world," says 25-year-old Ilyess, [24]

We have to demand change together. People need to come out to the streets on Friday and strike together with us. [24]

Task 13. Write your own leaflet about climate change or global warming.

SPEAKING

Task 1. Do you know...

- what kinds of pollution are there?
- how does pollution hurt people and animals?
- what can we do to stop pollution?

Task 2. Read these facts. Which one surprised you the most and why?

1. Annually, approximately 7 billion kilograms of various types of waste end up in the world's oceans.
2. 92% of the world's population lives in places with poor air quality.
3. The largest garbage patch The Great Pacific Garbage Patch is located in the Pacific Ocean. Various researchers estimate its area to be between 700,000 and 15 million km², meaning that even the smallest estimate exceeds the area of Ukraine by 20%.
4. More than 1 million seabirds die each year as a result of the indirect impact of plastic waste on them.
5. Ground-level ozone, which is formed as a result of chemical reactions between air pollutants in the presence of sunlight, reduces crop growth and agricultural productivity.
6. Air pollution causes 1 in 8 deaths worldwide.
7. The only relatively clean place on Earth is Antarctica.
8. Air pollution indoors kills 4.3 million people every year.
9. In India almost 80% of all urban waste is dumped into the Ganges River.
10. About a third of fish in British rivers are changing gender due to water pollution.

VOCABULARY

Task 3. Read and memorize the following words and word-combinations.

anthropogenic pollution	антропогенне забруднення
chemical pollution	хімічне забруднення
electromagnetic pollution	електромагнітне забруднення
factor	чинник
global environmental problems	глобальні екологічні проблеми
light pollution	світлове забруднення
natural disasters	природні катастрофи
noise pollution	шумове забруднення
pollutant	забруднювач
pollution	забруднення
pollution prevention	запобігання забрудненню
radioactive pollution	радіоактивне забруднення
source of pollution	джерело забруднення
standards of maximum allowable	нормативи гранично
concentrations of harmful	допустимих концентрацій
(polluting) substances	шкідливих (забруднюючих)
	речовин
technogenic (man-made) disasters	техногенні катастрофи
thermal pollution	теплове забруднення
xenobiotic	ксенобіотик

Task 4. Match the terms with their definitions:

anthropogenic pollution, global environmental problems, natural disasters, pollutant, pollution, pollution prevention, source of pollution, technogenic disasters, xenobiotic

- A. the introduction into any environment or the emergence therein of new physical, chemical or biological substances that are not characteristic of that environment, exceeding the permissible concentration level of the listed agents in the environment.
- B. the use of processes, practical methods, materials or products that avoid, reduce or combat pollution.
- C. pollution of the natural environment as a result of human economic and domestic activities.
- D. a substance or mixture of substances present in the environment that may be harmful to humans, animals, plants or other organisms, as well as entire ecosystems.
- E. any object or process that releases harmful substances or energy into the environment, negatively affecting it and living organisms.
- F. a substance foreign to living organisms that appears as a result of anthropogenic activity, capable of dissolving in lipids, damaging cell membranes, and relatively easily overcoming the protective barriers of the brain, peripheral nervous system, and reproductive organs.
- G. events or incidents that occur as a result of unforeseen or uncontrolled processes in technical systems, technological processes or other technical facilities.
- H. uncontrollable natural phenomena that have significant negative consequences for human life, infrastructure, and the environment.
- I. problems associated with the disruption of the balance in biosphere subsystems, which are losing their ability to self-regulate under the influence of anthropogenic factors at the national, regional and global levels.

READING

Task 5. Read the text and mark the statements as True (T) or False (F).

POLLUTION

Pollution is a change in the quality of the environment that leads to negative consequences. There are two types of pollution: natural and antropogenic. Natural pollution is caused by natural causes (volcanic eruptions, earthquakes, catastrophic floods, fires).

Natural pollution occurs as a result of natural causes (volcanic eruptions, earthquakes, catastrophic floods, fires).

Anthropogenic pollution is the result of human activity. Currently, the total power of anthropogenic pollution sources in many cases exceeds that of natural sources. Natural sources emit 30 mln tonnes of nitrogen oxide per year, while anthropogenic sources emit 35-50 mln tonnes; sulphur dioxide emissions are 30 mln tonnes and over 150 mln tonnes, respectively. As a result of human activity, 10 times more lead enters the biosphere than from natural sources.

Pollution is classified by scale as:

- a) *global (planetary)*: ozone holes, acid rain, greenhouse effect, increased radiation levels and pollution of the world's oceans;
- b) *regional*: pollution of individual parts of a country, a river basin, etc;
- c) *local*: small-scale pollution from local sources: the exhaust pipe of a specific car, the emission of gaseous or solid waste from a specific enterprise.

1. Pollution always comes from human activity.	
2. Volcanic eruptions can cause natural pollution.	
3. Anthropogenic sources emit more sulphur dioxide than natural sources.	
4. Local pollution can come from a single car's exhaust pipe.	
5. Natural sources emit more nitrogen oxide per year than anthropogenic sources.	

Task 6. Read the text and answer the questions.

TYPES OF POLLUTION

1. *Mechanical pollution* is pollution of the environment with mechanical waste without chemical or physical consequences.
2. *Chemical pollution* happens due to the change in the chemical properties of the environment that has a negative impact on ecosystems and man-made systems. Currently, more than 10 million chemical substances are known. Approximately 70,000 of them are used daily (including pharmaceuticals and pesticides), and about a thousand new chemical substances appear on the market every year. Not only the range of harmful ingredients is impressive, but also their volumes. Every year, 300–400 million tons of hazardous waste are produced worldwide.
3. *Physical pollution* is a change in the physical parameters of the environment that leads to negative consequences.
4. *Biological pollution* is the penetration of ecosystems or man-made systems by living organisms that are hostile to these communities.

Physical pollution is divided into subtypes:

- 1) *Thermal pollution* is a type of physical pollution associated with an increase in the temperature of the environment under the influence of anthropogenic factors.
- 2) *Light pollution*, which is caused by the disruption of natural lighting because of artificial light sources (bright flashes of light, flashes from nuclear explosions, distant headlights of oncoming cars at close range).
- 3) *Electromagnetic pollution* is a change in the electromagnetic properties of the environment. These are a kind of electromagnetic waves, the effect of which is amplified under high-voltage lines, in the vicinity of locators, and near televisions. It has a negative effect on living organisms due to the disruption of cellular and molecular biological structures.
- 4) *Radioactive pollution* is pollution caused by radiation levels exceeding the natural background level.

5) *Noise pollution* is an excess of the natural noise level caused by mechanical vibrations of elastic bodies.

6) *Radioactive pollution (irradiation)* is caused by both natural and man-made sources.

The majority of the radiation dose received by Earth's inhabitants comes from natural sources. The average annual individual equivalent dose from these sources is 0.01 rem. Much of the radiation dose received by Earth's inhabitants comes from natural sources. The average annual individual equivalent dose from these sources is 2 mSv (millisieverts) for Earth's inhabitants. For residents of Ukraine, this figure is higher and, according to the Ministry of Health of Ukraine, is 4.46 mSv .

1. What is mechanical pollution?
2. How many chemical substances are currently known?
3. How many new chemical substances appear on the market each year?
4. What is the estimated amount of hazardous waste produced worldwide annually?
5. What causes thermal pollution?
6. What is light pollution and what can cause it?
7. Where can electromagnetic pollution be especially strong?
8. What negative effects can electromagnetic pollution have on living organisms?
9. What is the average annual radiation dose from natural sources for Earth's inhabitants?
10. How does the average annual radiation dose for residents of Ukraine compared to the global average?

LISTENING

Task 7. Look at the picture and listen to the audio 5.1. What do you think are the main causes of technogenic disasters?



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Task 8. Listen to the audio again and choose the correct answer (A, B, C or D).

1. *What is a main characteristic of an environmental disaster?*

- A) It always causes many human deaths
- B) It never affects the environment
- C) It may not cause deaths but causes serious environmental damage
- D) It only happens in industrial areas

2. *What caused the Fukushima-1 nuclear disaster in 2011?*

- A) A fire at the power plant
- B) A volcanic eruption
- C) An earthquake followed by a tsunami
- D) Human error only

3. How high was the tsunami wave that hit Fukushima?

- A) 5.7 metres
- B) 15 metres
- C) 9 metres
- D) 20 metres

4. *What was the Fukushima accident's rating on the International Nuclear Event Scale (INES)?*

- A) 5
- B) 6
- C) 7
- D) 8

5. *Which radioactive substances were mainly released during the Fukushima disaster?*

- A) Uranium-235 and plutonium
- B) Iodine-131 and caesium-137
- C) Radon and tritium
- D) Mercury and lead

6. *How far was the evacuation zone around Fukushima?*

- A) 10 km
- B) 15 km
- C) 20 km
- D) 30 km

7. *Where did the Sandoz chemical plant disaster occur?*

- A) Japan
- B) Switzerland
- C) Germany
- D) France

8. *What toxic substances entered the Rhine River during the Sandoz disaster?*

- A) Radioactive isotopes
- B) Pesticides, herbicides, and mercury
- C) Oil and gasoline
- D) Plastic waste

9. *What happened to aquatic life in the Rhine after the Sandoz disaster?*

- A) Fish populations doubled
- B) Only small fish died
- C) Mass death of many species, with some disappearing completely
- D) No noticeable effect

10. *What was one long-term consequence of the Sandoz disaster?*

- A) The Rhine became safe to drink immediately
- B) The ecosystem needed years and millions of euros to recover
- C) The river dried up
- D) The Rhine changed its course permanently

Task 9. Listen to the audio 5.2 and mark the statements True (T) or False (F).



1. The Exxon Valdez disaster happened in Alaska in 1989.	
2. The tanker struck a reef because of bad weather conditions only.	

3. The ship's radar was working perfectly during the incident.	
4. The captain of the Exxon Valdez was on the bridge during the collision.	
5. Evidence suggests the captain may have been under the influence of alcohol.	
6. Over 40 million litres of crude oil spilled into Alaskan waters.	
7. The spill was the largest oil spill in world history by volume.	
8. The oil slick affected more than 2,000 kilometres of coastline.	
9. Hundreds of thousands of seabirds were killed in the disaster.	
10. The Oil Pollution Act of 1990 was passed partly because of this disaster.	

Task 10. Listen to the audio 4.2 again and answer the questions.

1. In what year did the Exxon Valdez disaster occur?
2. Where did the Exxon Valdez run aground?
3. Which company owned the Exxon Valdez supertanker?
4. What was wrong with the ship's radar at the time of the accident?
5. Who was in control of the ship when it hit the reef?
6. How many litres of crude oil were spilled?
7. Why were the environmental effects of the spill so severe?
8. How many kilometres of coastline were affected by the oil slick?
9. What happened to many seabirds and marine mammals after the spill?
10. What U.S. law was passed partly in response to this disaster?

WRITING

Task 11. Think about the following:

- What kind of reports do you know?
- Have you ever written any?

A *REPORT* is a document that presents information in an organized format for a specific audience and purpose.

A *WORK REPORT* is a document detailing the progress of work, summary, and recommendations on work-related aspects.

Task 12. Read the writing strategy. What do you think about writing work reports? Are they important? Why?

6 Tips for Writing Work Reports

- Use headings to help others navigate the report. Create headings that are direct and straight to the point.
- Use simple, direct language to convey your ideas. A work report doesn't need to include big words and creative sentences.
- Use concise writing to keep your report as brief as possible.
- Express your ideas using objective and non-emotional language. Stick to the facts and let the reader draw conclusions.
- Avoid using slang, as well as the word "I" in most reports. It may be appropriate to use "I" in a progress report, if you're writing about a project that you are working on alone.
- Keep your language professional throughout your report.

Task 13. Complete the table with Dos and Don'ts using the phrases from the box. Add some of your own.

How to write a work report

use technical terms, use prolonged language, use headings, divide the long sentences into small sentences, use informal tone, copy the work of others, use only software and tools to check for grammar and mistakes

Dos	Don'ts

Task 14. Write a work report about a polluted area you have studied or visited.

Your report should include:

- Introduction – Location and basic description of the area.
- Description of the pollution – Type(s) of pollution and main sources.
- Impact – Effects on the environment, people, and wildlife.
- Measures taken – Any actions already done to solve the problem.
- Recommendations – Your suggestions for improving the situation.

Use clear paragraphs and formal language.

SPEAKING

Task 1. Do you know...

- why is recycling important for the environment?
- what materials can be recycled at home?
- how can people reduce the amount of waste they produce?

Task 2. Read these facts. Which one surprised you the most and why?

1. The problem of waste recycling was first addressed in England 200 years ago. At the end of the 19th century, the first waste incineration plant appeared there.
2. Only 9% of all plastic is recycled worldwide. The rest pollutes our planet.
3. More than 100,000 mammals, birds and fish die every year worldwide due to discarded plastic bags. Animals eat them or suffocate.
4. Each tonne of recycled plastic saves up to 2,000 litres of petrol.
5. A rubbish museum has opened in New Jersey (USA). It houses examples of unusual, interesting and dangerous rubbish.
6. Annually, 7,000,000 tonnes of clothing are discarded worldwide, only 12% of which is recycled and reused.
7. A glass bottle takes 1 million years to fully decompose.
8. The most common type of litter on the planet is cigarette butts. Every year, 4,500,000,000 of them are thrown away.
9. Recycling one tonne of paper saves 17 trees, conserves 26,000 litres of water and 2.5 cubic metres of landfill space.
10. In countries where waste is sorted, the recycling rate reaches 60% or more. This reduces the burden on landfills and helps conserve natural resources.

VOCABULARY

Task 3. Read and memorize the following words and word-combinations.

circular economy	циркулярна економіка
downcycling	даунсайклінг
freecycling	фрісайклінг
hierarchy of waste	ієрархія відходів
household waste	побутові відходи
illegal landfill	несанкціоноване звалище
recycling	переробка
separate waste collection	роздільне збирання відходів
sorting of waste	сортування відходів
upcycling	апсайклінг
waste	відходи
waste disposal facility	об'єкт для розміщення відходів
waste management	управління відходами

Task 4. Match the terms with their definitions:

circular economy, household waste, separate collection of waste, unauthorised landfill, waste, waste disposal facility, waste hierarchy, waste management, waste sorting

A. any substances, materials and objects that their owner discards, intends to discard or is required to discard.

B. mixed and/or separately collected waste from households, including paper, cardboard, glass, plastic, wood, textiles, metal, packaging, bio-waste, waste electrical and electronic equipment, waste batteries and accumulators, hazardous waste in household waste, bulky and repair waste, as well as mixed

and/or separately collected waste from other sources, if this waste is similar in composition to household waste.

C. collection of waste separately according to its type, characteristics and composition in a manner that facilitates its further treatment.

D. an operation involving the mechanical separation of waste according to its physical and chemical properties, material components, energy value and other indicators to prepare it for treatment.

E. a set of measures for the collection, transport, treatment (recovery, including sorting, and disposal) of waste, including supervision of such operations and further care for waste disposal facilities.

F. a fundamental sequence of priorities in waste management: prevention > reuse > recycling > energy recovery > landfill.

G. an economic model aimed at maximising the reuse of materials, minimising waste and rejecting the 'use and throw away' concept.

H. an illegal disposal of waste in places not designated for this purpose.

I. a landfill for the disposal and burial of industrial and household waste, sludge storage facilities, storage facilities and other structures designed and operated in accordance with projects.



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READING

Task 5. Read the text and mark the statements as True (T) or False (F).

WASTE MANAGEMENT AND RECYCLING

The problem of waste recycling is becoming increasingly acute with the growth of the Earth's population and the proportion of people living in cities. In 1900, there were 220 million city dwellers in the world, accounting for 13% of the total population, who produced less than 300,000 tonnes of waste per day. By 2000, 2.9 billion people living in cities (49% of the world's population) were producing more than 3 million tonnes of solid waste per day. By 2025, the volume of waste generated had doubled. According to scientists' estimates, if the growth rate of household waste does not decrease, global waste production will triple by 2100 compared to current levels and reach 11 million tonnes per day as a result of population growth to 9.5 billion people and urbanisation to 80%. [8]

Of the 470 million tonnes of industrial and household waste generated annually in Ukraine, only a small portion is recycled, with the rest accumulating in landfills. A similar situation existed in European countries about fifty years ago. What helped the European Union countries cope with this problem? [8]

Starting in the 1970s, a new culture of waste management gradually took shape in Europe. This was facilitated by the adoption of the Waste Framework Directive in 1975. Another decisive step was the adoption in 2008 of Directive 2008/98, which implements a strategy for transitioning to a circular economy model and emphasises the concept of a waste management hierarchy, showing the sequence of the most desirable activities that ultimately lead to a reduction in waste volumes.[8]

Here are the five basic principles [13]:

1. *It is better to prevent waste than to deal with it later.* The state must create conditions for manufacturers so that their products generate a minimum amount of waste that can end up in landfills after use.

2. *Reuse*. This means using products or their components that have not become waste for the same purpose (e.g., auto parts, electrical appliances, furniture, clothing, etc.). Such items are collected in special centres, where used goods are refurbished and sold on a second-hand basis.

3. *Recycling, or processing waste material into another product*. Glass, ferrous and non-ferrous metals, paper, textiles, plastic and wood are recycled according to this principle. Sorting waste into fractions (glass, paper, metal, plastic) is necessary namely to facilitate recycling.

4. *Waste into energy*. Waste is converted into electrical and thermal energy using waste incineration plants. Currently, between 23% and 58% of solid household waste in European Union countries is incinerated. Biogas plants, which operate at landfills or agricultural waste collection sites, are also becoming widespread.

5. *Landfilling*. Only waste that cannot be recycled in any other way should be sent to landfills. Modern landfills in the European Union are very different from those we are used to, as they involve a complex engineering system that prevents harmful substances from entering the soil or groundwater.

Following these priorities has helped EU countries achieve significant results; at the same time, within the framework of these general principles, each EU country has its own practices for different methods of waste disposal. This approach brings us closer to the implementation of the circular economy model, which is based on smart consumption according to the principle of 'take, make, reuse' [13].

1. In 1900, 13% of the world's population lived in cities and produced less than 300,000 tonnes of waste per day.	
2. By 2025, global waste generation had doubled compared to 2000.	
3. Scientists predict that by 2100, global waste production will decrease due to better recycling.	
4. In Ukraine, most industrial and household waste is recycled each year.	

5. The Waste Framework Directive was adopted in 1975 in the European Union.	
6. Recycling means converting waste into new products like glass, paper, or plastic items.	
7. According to the waste hierarchy, landfilling is the most preferred method of waste management.	

Task 6. Read the text and answer the questions.

TYPES OF SECONDARY PROCESSING

You may have heard terms such as recycling, upcycling, and downcycling before. These are some types of secondary processing that refer to different approaches to it.

Recycling is the process of converting waste into materials that can be reused to create new products. It is an important part of the circular economy and helps reduce the negative impact on the environment. This operation includes the processing of organic material but does not include energy production or the conversion of waste into materials that can be used as fuel or backfill materials.

In English, recycling means 'the process of producing raw materials from secondary raw materials. Materials such as paper, plastic, metal, glass and more complex composite materials, such as Tetra Pak (several layers of cardboard, polyethylene and foil), can be recycled and transformed beyond recognition.

Downcycling is a type of recycling, i.e. also reprocessing. In this case, the quality of the raw materials is reduced, so it is not possible to make an identical product from them. For example, clothing that is unsuitable for reuse is shredded and turned into regenerated fibre, which can be used to stuff upholstered furniture or as building materials. However, this fibre cannot be used to make clothes again.

Upcycling is a way of looking at old things from a new perspective, refining or reinventing them. Thanks to their skill and creativity, many people and

companies transform materials that have served their purpose into products of higher quality and value than they were before.

Freecycling is a new way of dealing with unwanted items and objects, which involves giving away unwanted items or exchanging them for something else.

1. What is recycling?
2. How does recycling help the environment?
3. What materials can be recycled?
4. Does recycling include energy production?
5. What is downcycling?
6. Why can't clothing fibre from downcycling be used to make clothes again?
7. What is upcycling?
8. How does upcycling increase the value of old items?
9. What is freecycling?
10. How is freecycling different from recycling?



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LISTENING

Task 7. Look at the picture and listen to the audio 6.1. What do you think are the main causes of illegal landfills?



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Task 8. Listen to the audio again and choose the correct answer (A, B, C or D).

1. *Where is the Ghaziabad landfill located?*

- A) Mumbai, India
- B) Delhi, India
- C) Accra, Ghana
- D) Agbogbloshie, Ghana

2. *How big is the Ghaziabad landfill?*

- A) 50 hectares
- B) 28 hectares
- C) 72 hectares
- D) 11 hectares

3. *When did the Ghaziabad landfill reach its maximum capacity?*

- A) 1984 B) 2002 C) 2017 D) 2024

4. *How tall is the landfill compared to landmarks?*

- A) Taller than Mount Everest
B) Equal to the Eiffel Tower
C) Almost as high as the Taj Mahal
D) Higher than Burj Khalifa

5. *What tragic event happened at the Ghaziabad landfill in 2017?*

- A) A plane crash
B) A massive landslide of waste
C) An earthquake
D) A flood

6. *How much electronic waste is generated worldwide each year, according to the UN?*

- A) 25 million tonnes
B) 50 million tonnes
C) 100 million tonnes
D) 300 million tonnes

7. *Where is one of the largest electronic waste dumps in the world?*

- A) New Delhi, India
B) Lagos, Nigeria
C) Agbogbloshie, Ghana
D) Nairobi, Kenya

8. Which valuable metal is mentioned as being extracted from used electronics?

- A) Copper
- B) Uranium
- C) Gold
- D) Platinum

9. How does the amount of gold in 1 tonne of electronics compare to gold-bearing ore?

- A) Same as in 1 tonne of ore
- B) Same as in 10 tonnes of ore
- C) Same as in 18 tonnes of ore
- D) Same as in 100 tonnes of ore

10. What is a serious health risk for workers at the Ghana e-waste site?

- A) Frostbite
- B) Exposure to toxic vapours
- C) Starvation
- D) Snake bites

Task 9. Listen to the audio 6.2 and mark the statements True (T) or False (F).



1. The landfill in Manila was officially closed in 1995.	
2. People living at the Manila landfill build houses from rubbish.	
3. The Great Pacific Garbage Patch is located between Europe and Africa.	

4. Some estimates put the Great Pacific Garbage Patch at more than 15 million km ² .	
5. Marine animals sometimes die after mistaking plastic for food.	
6. The Atacama Desert is one of the wettest places on Earth.	
7. NASA has tested rovers in the Atacama Desert.	
8. Fast fashion has no impact on the Atacama Desert.	
9. The Atacama Desert is located in southern Chile.	
10. The UN has called the fast fashion waste problem an "environmental and social emergency."	

Task 10. Listen to the audio 6.2 again and answer the questions.

1. Where is the landfill described in the Philippines located?
2. When did the authorities officially close the Manila landfill?
3. How high is the mountain of rubbish in Manila?
4. What do people living at the Manila landfill do to survive?
5. Between which continents is the Great Pacific Garbage Patch located?
6. What is the smallest estimated size of the Great Pacific Garbage Patch?
7. Name one way marine animals are harmed by plastic waste.
8. Where is the Atacama Desert located?
9. Why has NASA tested rovers in the Atacama Desert?
10. What global issue has the UN linked to the Atacama's waste problem?

WRITING

Task 11. Think about the following:

- How often do you write inquiry letters?
- Do you find writing inquiry letters or responses to them difficult or easy? Why?

An INQUIRY LETTER is a letter that seeks to clarify some specific information. This type of letter is most often written in response to an advert or advertisement that appears in a newspaper, magazine or commercial on television.

Task 12. Read the writing strategy. Look through the inquiry letter structure.

Inquiry letter structure

1. Follow the structure of a formal business letter. Add your address at the top, followed by the date of the letter. The recipient's address is usually on the left. Optional in emails but standard in formal letters.
2. It is better to address the letter to a specific person, but if you do not know the person to whom you can address it, state the name of the department of the firm to which you are writing and add the phrase 'Dear Sir or Madam' or 'To Whom It May Concern'.
3. In the first paragraph, identify yourself and, if applicable, your position and your institution or company.
4. In the second paragraph, briefly explain why you are writing and how you will use the information requested.
Specify the data you need. You can formulate your requests as a question or as a list of specific data.
5. If you have addressed a specific person as 'Dear Mr...' at the beginning of the letter, then use the phrase 'Yours sincerely' at the end.

If you did not mention a specific person at the beginning of the letter and used the phrase 'Dear Sir/Madam' instead, you should write 'Yours faithfully' at the end of the letter.

Viktor Shevchenko
263 Zelena Street
72312 Melitopol, Ukraine
E-mail: v.shevchenko@gmail.com
13 August 2025

Green Solutions Ltd.
73 Apple Avenue
Bristol, BL 4465

Dear Sir or Madam,

I am writing on behalf of an environmental initiative group in Zaporizhzhia, Ukraine. We are committed to promoting sustainable waste management practices and raising awareness about ecological issues in our region.

We have recently reviewed your promotional booklet on waste reduction and recycling solutions and are very interested in learning more about your services. However, before proceeding, we would like to clarify a few points:

- Possible discounts for community-based ecological projects.
- Delivery conditions for your waste management materials or services to Ukraine.

· Terms and conditions for support or consultation on implementing ecological programs.

We look forward to your reply and hope for fruitful cooperation in promoting environmentally responsible waste management.

Yours faithfully,
Signature
Viktor Shevchenko

Task 13. Write a formal inquiry letter to a waste management company requesting detailed information about their recycling and disposal services (100–150 words).

SPEAKING

Task 1. Do you know...

- what is the circular economy?
- how can we protect nature and still grow our economy?
- what can people do to support the circular economy?

Task 2. Read these facts. Which one surprised you the most and why?

1. The circular economy operates on the principle of a 'closed circle', where waste from one industry becomes a resource for another.
2. The transition to a circular model can reduce the amount of waste in the world by up to 90%.
3. Circular economy helps create new jobs in recycling, repair and innovation.
4. One of the key rules of sustainable development is reduce, reuse, recycle.
5. Sustainable development has three components: economic, environmental and social.
6. The EU already has policies in place that require companies to design products that can be repaired and reused.
7. The Netherlands plans to fully transition to a circular economy by 2050.
8. Sustainable development helps fight climate change by reducing greenhouse gas emissions.
9. The circular economy reduces dependence on the extraction of new resources while preserving natural ecosystems.
10. Consumers can support this model by purchasing goods made from recycled materials or with a long lifespan.

VOCABULARY

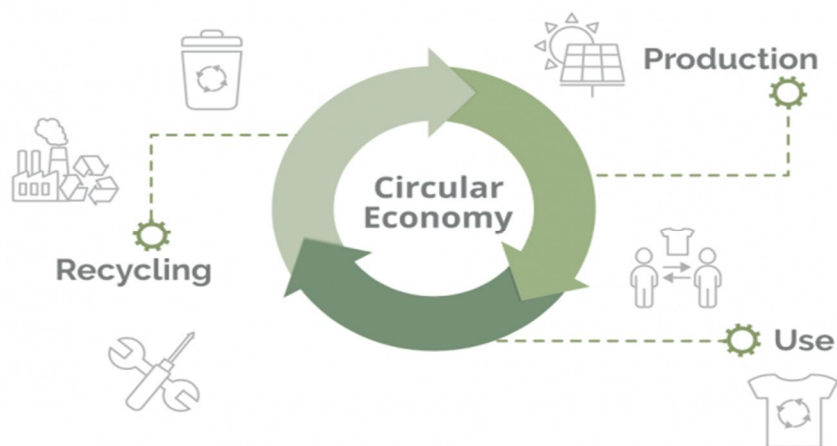
Task 3. Read and memorize the following words and word-combinations.

circular economy	циркулярна економіка
closed-loop innovation	інновація замкнутого циклу
environmental efficiency	екологічна ефективність
green economy	зелена економіка
linear economy	лінійна економіка
recover	відновлювати
recycle	переробляти
reduce	зменшувати
refurbish	оновлювати
refuse	відмовлятися
regenerate	регенерувати, відтворювати
remanufacture	повторно виготовляти
repair	ремонтувати
repurpose	перепрофільовувати
restore	відновлювати
rethink	переосмислювати
reuse	використовувати повторно
sustainable development goals (sdgs)	цілі сталого розвитку
three pillars of sustainability	тріада сталого розвитку

Task 4. Match the terms with their definitions:

circular economy, Closed-Loop Innovation (CLI), environmental efficiency, green economy, linear economy, Sustainable Development Goals (SDGs), Three Pillars of Sustainability

- A. an economic model that aims to use resources efficiently, minimise waste and keep products and materials in circulation as long as possible.
- B. an economic model that focuses on sustainable development, reducing environmental risks and ecological scarcity. It envisages economic growth that is environmentally responsible and socially just.
- C. a traditional production model based on the principle of "take, make, use, dispose". It involves a unidirectional flow of materials and resources that eventually turn into waste.
- D. three interrelated components of sustainable development: economy, society and environment.
- E. a set of 17 interconnected global goals established by the United Nations in 2015 as 'a universal call to action to eradicate poverty, protect the planet and ensure prosperity for all people'.
- F. a process that involves rethinking product design, business models and technologies to achieve the goals of a circular economy. Eco-innovations are new or modified processes, equipment, products, methods and management systems that avoid or reduce harmful environmental impact.
- G. the ability to achieve environmental goals with the lowest resource consumption and minimal negative impact on the environment. It includes a set of measures aimed at reducing pollution, preserving natural resources and restoring ecosystems.



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READING

Task 5. Read the text and mark the statements as True (T) or False (F).

CIRCULAR ECONOMY AND SUSTAINABLE DEVELOPMENT

The circular economy is an economic model aimed at using resources efficiently, minimising waste and keeping products and materials in circulation for as long as possible. It is not just recycling, but a fundamental change in the way we produce and consume. It implies that resources are used as long as possible and waste is minimised.

The circular economy is the opposite of a "linear" economy. The conventional take-make-waste approach results in huge amounts of waste. The circular economy works on the principle of "regenerate-make-restore", where resources circulate and waste becomes raw materials.

The circular economy is built on three main ideas:

1. Remove waste and pollution.

In today's economy, we often follow a "take–make–waste" model. We take raw materials from the Earth, make products, and then throw them away. A lot of this waste goes to landfills or is burned, and we lose it forever. This is not sustainable because our planet's resources are limited.

2. Keep products and materials in use.

The second idea is to keep products and materials in use for as long as possible. When a product can't be used anymore, its parts or materials can be reused to make something new. This way, almost nothing becomes waste, and we keep the value of materials for longer.

3. Help nature recover.

By changing from the "take–make–waste" system to a circular economy, we can support natural systems and give more space for nature to grow and stay healthy.

1. The circular economy focuses only on recycling materials.	
2. In the circular economy, products and materials are kept in use for as long as possible.	
3. The linear economy follows the “regenerate–make–restore” model.	
4. A lot of waste in the current system ends up in landfills or is burned.	
5. One main idea of the circular economy is to remove waste and pollution.	
6. The circular economy helps natural systems recover and thrive.	
7. In the “take–make–waste” model, resources are reused many times before disposal.	

Task 6. Read the text and answer the questions.

ON THE PATH TO SUSTAINABLE DEVELOPMENT

The circular economy is a key tool for achieving sustainable development goals.

Sustainable development is a general concept about the need to strike a balance between meeting the current needs of humanity and protecting the interests of future generations, including their need for a safe and healthy environment. [5]

Sustainable development approaches serve as a guide for humanity in its quest to live in harmony with nature and a benchmark in its efforts to restore the health and integrity of the Earth's ecosystem (definition proposed at the UN Conference on Sustainable Development, 20-22 June 2012, Rio de Janeiro, Brazil). [5]

In September 2015, as part of the 70th session of the UN General Assembly, the UN Summit on Sustainable Development and the adoption of the Post-2015 Development Agenda took place in New York, where new development benchmarks were approved. The outcome document of the Summit,

Transforming Our World: The 2030 Agenda for Sustainable Development, approved 17 Sustainable Development Goals and 169 targets.

The Sustainable Development Goals (SDGs), also called the Global Goals, were agreed by the United Nations in 2015. They are a plan for all countries to work together to end poverty, protect the planet, and make sure that by 2030 everyone can live in peace and have a good life. [37]

There are 17 SDGs. They are connected, because progress in one area can help or harm other areas. Development needs to keep a balance between social, economic, and environmental needs. [37]

Countries have promised to focus first on helping people who are in the most difficult situations. The SDGs aim to end poverty, hunger, AIDS, and discrimination against women and girls. [37]

To reach these goals, the world needs the creativity, knowledge, technology, and money of people and organisations everywhere.

1. What is the main goal of the circular economy in relation to sustainable development?
2. How is sustainable development defined in the text?
3. When and where was the definition of sustainable development in the text proposed?
4. What event took place in September 2015 in New York related to sustainable development?
5. How many Sustainable Development Goals (SDGs) were approved in 2015?
6. What is the main purpose of the SDGs?
7. Why are the SDGs described as “connected”?
8. Which groups of people are countries focusing on helping first?
9. Name at least two problems the SDGs aim to end.
10. What resources are needed from society to achieve the SDGs?

LISTENING

Task 7. Look at the picture and listen to the audio 7.1. What are the different stages where R-strategies can be implemented?

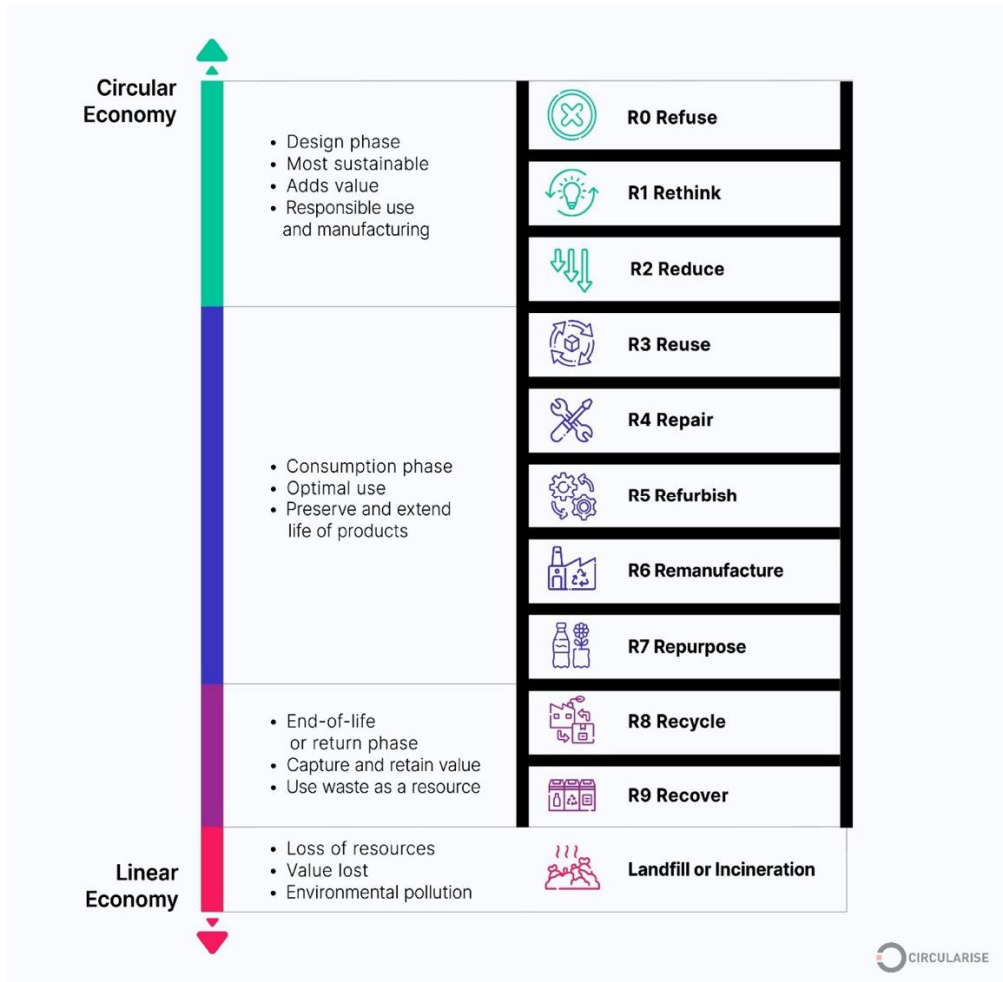


Figure 1. The different stages that R-Strategies can be implemented

Task 8. Listen to the audio again and choose the correct answer (A, B, C or D).

1. *What was the original basis of the circular economy?*

- A) Ten R-principles
- B) Reduce, Reuse, Recycle
- C) Refuse, Rethink, Reduce
- D) Reuse, Repair, Recycle

2. Which R-principle has the highest priority in the expanded list?

- A) R2 Reduce
- B) R1 Rethink
- C) R0 Refuse
- D) R8 Recycle

3. How many R-principles are there in the expanded version?

- A) 3
- B) 7
- C) 9
- D) 10

4. According to the Ellen MacArthur Foundation, how much could the circular economy bring to the global economy by 2030?

- A) \$4.5 million
- B) \$45 billion
- C) \$4.5 trillion
- D) \$450 million

5. Which of these R-principles comes last in the priority order?

- A) Recover
- B) Recycle
- C) Refurbish
- D) Repurpose

Task 9. Listen to the audio 7.2 and mark the statements True (T) or False (F).



1. Ellen MacArthur is from the United States.	
2. She completed her first solo trip around the world at age 18.	
3. Ellen set a world record in 2005 for solo sailing around the world.	
4. Her journey took 71 days, 14 hours, 18 minutes, and 33 seconds.	
5. During her trip, she had unlimited food and water supplies.	
6. Ellen compared her yacht to the Earth because both have limited resources.	
7. After her journey, she continued her career as a professional sailor.	
8. The Ellen MacArthur Foundation was founded in 2010.	
9. The Foundation works mainly on promoting competitive sailing.	
10. Ellen's extreme experience inspired her to promote the circular economy.	

Task 10. Listen to the audio 7.2 again and answer the questions.

1. Where was Ellen MacArthur born?
2. At what age did she complete her first solo trip around the world?
3. In what year did Ellen set her solo sailing world record?
4. How long did her record-breaking journey take?
5. What made Ellen realise that resources are limited?
6. What comparison did Ellen make between her yacht and planet Earth?
7. What major decision did Ellen make after her sailing career?
8. In which year was the Ellen MacArthur Foundation established?

WRITING

Task 11. Think about the following:

- Have you ever heard about proposal letters?
- What is their purpose and main task?

PROPOSAL LETTER is a document that acts as a full proposal for small projects, where an in-depth proposal, with a table of contents and extensive project details, is not required. Alternatively, a proposal letter is sent either as a precursor to a comprehensive and more detailed business proposal or included as part of an actual proposal, used as a cover letter to engage potential prospects.

Task 12. Read the writing strategy. Learn how to write a proposal letter. Look through its structure and components.

How to write a Proposal letter

1. Introduce yourself and provide background information

This paragraph should include basic information about your company and an overview of the topic to make it clear what the recipient will be reading.

2. State your purpose for the proposal

Your purpose for the proposal is what you intend to accomplish, or what problem exists that you intend to fix.

3. Define your goals and objectives

Describe the long-term outcomes you plan to meet and the objectives you will establish to get you there. Be very clear and include specific figures if possible.

4. Highlight what sets you apart

If your proposal is the answer to a company's problem, showcasing your valuable assets can help you stand out. State some of your special skills related to the project and reasons you are the best fit for the job. This might include

experience with a similar issue or outlining a unique process that gets great results.

If your proposal is for a business venture, highlight a few factors that differentiate your ideas from others. When highlighting your key differentiators, you could use bullet points to list your features so they're easier to read.

5. Briefly discuss budget and how funds will be used

Cost is a major factor for decision-makers. You will probably not need to include a full account of costs, but providing a general idea of the budget will give investors a better look at the project.

6. Finish with a call to action and request a follow-up

A call to action is a request for your recipient to take additional steps and creates an urgency for them to move forward. This can increase the chances that they will respond.

Let them know the specific day you will contact them again so they can expect your call or email.

7. Close the letter and provide contact details

Thank the recipient for their consideration of your proposal and encourage them to contact you if they have any questions. End the letter with a professional closing, such as "Sincerely" or "Regards," followed by a comma. Type your name a few lines below, then sign your name above your typed name.

Task 13. You are an environmental consultant working in a circular economy organization. Write a proposal letter or email (100–150 words) to another company, offering your ecological services, sustainable solutions, or circular economy products.

SPEAKING

Task 1. Do you know...

- what is the purpose of environmental policy?
- what global initiatives protect the environment?
- how can countries work together to solve environmental problems?

Task 2. Read these facts. Which one surprised you the most and why?

1. The Paris Agreement (2015) was the first international agreement where almost all countries agreed to limit global warming to 1.5-2 °C.
2. The Kyoto Protocol (1997) was the first international attempt to oblige countries to reduce greenhouse gas emissions.
3. The Sustainable Development Goals (SDGs) include environmental goals such as clean water, climate action and ecosystem conservation.
4. The United Nations Framework Convention on Climate Change (UNFCCC) has become the basis for most international climate agreements.
5. The Convention on Biological Diversity (1992) aims to conserve all species of living organisms and their habitats.
6. The Montreal Protocol (1987) successfully stopped the decline of the ozone layer by limiting the production of harmful gases.
7. The European Green Deal is an EU strategy that aims to become a climate-neutral continent by 2050.
8. International environmental initiatives often include CO₂ emissions trading, which encourages businesses to reduce pollution.

VOCABULARY

Task 3. Read and memorize the following words and word-combinations.

atmosphere	атмосфера
biodiversity	біорізноманіття
cfcs - chlorofluorocarbons	фреони – хлорфторвуглеводні (ХФВ)
climate neutrality	кліматична нейтральність
greenhouse effect	парниковий ефект
greenhouse gases (ghgs)	парникові гази
invasive species	інвазивні види
nationally determined contributions (ndcs)	національно визначені внески (ndcs)
ozone layer	озоносфера (озоновий екран)
ozone-depleting substances (ods)	озоноруйнівні речовини
renovation	реновація

Task 4. Match the terms with their definitions:

biodiversity, chlorofluorocarbons (cfcs), climate neutrality, greenhouse gases, invasive species, nationally determined contributions, ozone-depleting substances, ozone layer (ozone screen), the greenhouse effect

- A. a layer of the atmosphere characterised by a high concentration of ozone and absorbing ultraviolet radiation that is harmful to organisms.
- B. a gradual warming of the global climate as a result of the accumulation of anthropogenic carbon dioxide and other gases in the atmosphere.
- C. chemical compounds that destroy ozone molecules in the stratosphere. The most famous of them are chlorofluorocarbons (CFCs).

D. highly volatile, chemically inert substances in the earth's surface, widely used in everyday life and in production as refrigerants (in refrigerators, air conditioners, refrigerators), foaming agents, spraying agents in aerosol packages, etc.

E. gases that retain heat in the atmosphere, causing the greenhouse effect (main ones: carbon dioxide (CO₂), methane (CH₄) and nitrogen oxide (N₂O)).

F. the neutral impact of human activity on the climate.

G. plans of countries to reduce emissions and adapt to climate change.

H. the diversity of living organisms from all sources, including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part, diversity within a species, between species and ecosystem diversity.

I. alien species that has been naturalised outside its natural (primary) range as a result of direct or indirect human intervention, actively reproduces and spreads independently across the territory, and causes a negative impact on local (autochthonous, indigenous) species, biodiversity, ecosystem services, the economy, and human health.



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READING

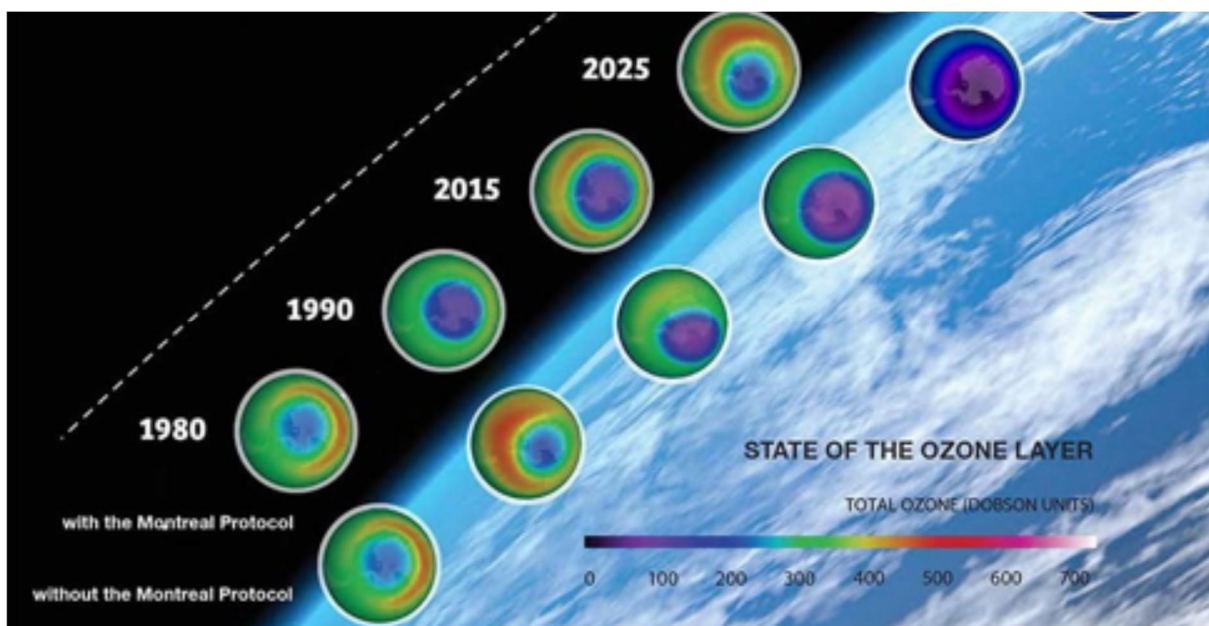
Task 5. Read the text and mark the statements as True (T) or False (F).

ENVIRONMENTAL POLICY AND GLOBAL INITIATIVES

The Montreal Protocol

The Montreal Protocol is an international agreement concluded in 1987 to protect the Earth's ozone layer. It provides for the phase-out of the production and use of substances that deplete the ozone layer, such as chlorofluorocarbons (CFCs). The Protocol is considered to be one of the most successful multilateral agreements in the field of environmental protection, and its compliance helps to restore the ozone layer. [10]

In 1986, Ukraine joined 197 other countries in joining the Vienna Convention for the Protection of the Ozone Layer, and later ratified the Montreal Protocol. Each signatory country stopped or limited the production of a number of substances that depleted the Earth's protective shell. As a result, 99% of substances that damaged the ozone layer were banned. This helped to prevent global warming by 0.5-1 degree Celsius by the middle of this century compared to the scenario of uncontrolled increase in these substances.[18]



State of the ozone layer with and without the Montreal Protocol

An interesting fact! The ozone layer, located in the stratosphere, absorbs about 97-99% of the sun's harmful ultraviolet radiation. Without this protection, life on land would be impossible, as UV-B radiation causes skin cancer, cataracts and damages plant cells. [10]

The name "ozone hole" is metaphorical. In fact, it is not a complete absence of ozone, but a significant thinning of it over Antarctica, which is a temporary and seasonal phenomenon. It occurs every spring due to chemical reactions caused by chlorofluorocarbons (CFCs), which have long been used in aerosols and refrigerators.[18]

At ground level (in the troposphere), ozone is a key component of smog. It is formed as a result of reactions between emissions from industry, transport and sunlight. This "bad" ozone is toxic to the respiratory tract and can cause asthma, bronchitis and damage the lungs. [10]

1. The Montreal Protocol was signed in 1987 to protect the Earth's ozone layer.	
2. Chlorofluorocarbons (CFCs) are substances that help restore the ozone layer.	
3. The Montreal Protocol is considered one of the most successful environmental agreements.	
4. Ukraine joined the Vienna Convention before ratifying the Montreal Protocol.	
5. 99% of substances that damaged the ozone layer were banned under the Protocol.	
6. The "ozone hole" is a complete absence of ozone over Antarctica.	
7. The Montreal Protocol has helped prevent global warming by up to 1°C compared to uncontrolled emissions.	

Task 6. Read the text and answer the questions.

CONVENTION ON BIOLOGICAL DIVERSITY

The Convention on Biological Diversity (CBD) is an international agreement aimed at the conservation of biodiversity, the sustainable use of its components and the equitable sharing of benefits arising from the utilization of genetic resources. Ukraine acceded to the Convention in 1994.

The Convention was signed in 1992 at the famous Earth Summit in Rio de Janeiro. At that time, the world began to realize that the loss of species and ecosystems was occurring at an alarming rate. The Convention became the first and only international document to cover all biodiversity, from microorganisms to blue whales.

On December 19, 2022, the Kunming-Montreal Global Biodiversity Framework was signed in Montreal, Canada, committing the world to halt and reverse biodiversity loss by 2030.

The 196 countries that are parties to the Convention on Biological Diversity are committed to conserving at least 30% of terrestrial, freshwater and marine ecosystems.

The Global Framework Program will be a logical continuation of all the scientific and political processes that have taken place over the past decade.

According to the program, by 2030, the main indicators for biodiversity conservation should be achieved:

1. to stop the loss of areas important for biodiversity;
2. restore 30% of degraded ecosystems;
3. to grant nature protection status to 30% of land, fresh and marine waters;
4. to slow down the spread and reduce the population of invasive species by 50%;
5. to raise more than \$200 billion annually to implement national biodiversity strategies and action plans.

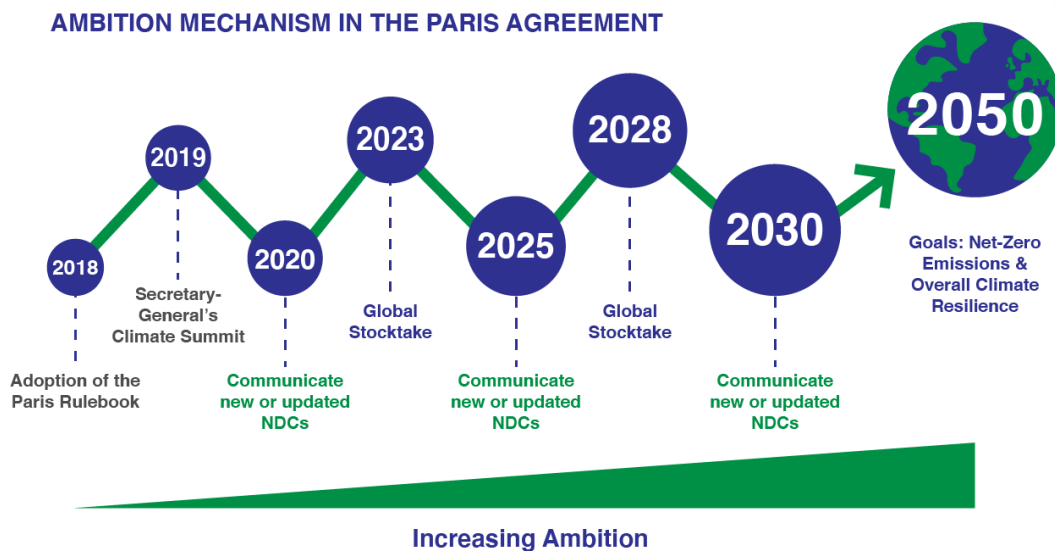
This is a very ambitious plan to stop species extinction, which is currently the fastest in the last 10 million years. The program clearly links climate change mitigation and adaptation to biodiversity conservation, in particular through the implementation of nature-based solutions and ecosystem approaches.

Interesting fact! The biodiversity of our planet includes about 9 million species. However, only a fifth of them have been described by humanity. At the same time, 2-3 species of living organisms disappear on our planet every hour, which is 20-30,000 every year. As the number of plant and animal species decreases, the Earth's ecosystems are degraded and destroyed. Land is turning into deserts and living conditions for various species are deteriorating significantly.

1. What is the main goal of the Convention on Biological Diversity (CBD)?
2. When did Ukraine join the Convention on Biological Diversity?
3. In which year and at which event was the Convention originally signed?
4. What makes the Convention on Biological Diversity unique compared to other international documents?
5. What is the Kunming-Montreal Global Biodiversity Framework, and when was it signed?
6. By 2030, what percentage of terrestrial, freshwater, and marine ecosystems should be conserved according to the CBD?
7. Name two key indicators of biodiversity conservation to be achieved by 2030.
8. How much funding is planned to be raised annually for national biodiversity strategies and action plans?
9. How many species are estimated to exist on Earth, and how many have been described by humans?
10. What is the current rate of species extinction per hour and per year?

LISTENING

Task 7. Look at the picture and listen to the audio 8.1.
What do you know about the Paris Agreement?



Task 8. Listen to the audio again and choose the correct answer (A, B, C or D).

1. *What is the main goal of the Paris Agreement?*

- A) To eliminate all greenhouse gas emissions immediately
- B) To keep global temperature rise within 2°C (preferably 1.5°C)
- C) To stop industrial production worldwide
- D) To promote space exploration

2. *When was the Paris Agreement concluded?*

- A) 2010
- B) 2015
- C) 2016
- D) 2017

3. *How many signatory countries had ratified the agreement when it entered into force?*

- A) 100
- B) 147
- C) 197
- D) 50

4. *When did Ukraine ratify the Paris Agreement?*

- A) July 14, 2015
- B) July 14, 2016
- C) December 12, 2015
- D) January 1, 2016

5. *What is the main problem with countries' efforts under the Paris Agreement?*

- A) Most countries have already reached zero emissions
- B) The majority are not meeting their zero-emission targets and NDCs
- C) Countries have no emission reduction plans
- D) The agreement only applies to Europe

6. *How many times has the United States announced its withdrawal from the Paris Agreement?*

- A) Once
- B) Twice
- C) Three times
- D) Never

7. *What does the US example demonstrate in the international arena?*

- A) A permanent commitment to climate goals
- B) A change in political priorities with a new political force
- C) Complete compliance with zero-emission targets
- D) No influence on global climate policies

Task 9. Listen to the audio 8.2 and mark the statements True (T) or False (F).



1. The European Green Deal (EGD) was presented in 2019.	
2. The goal of the EGD is to make Europe climate-neutral by 2030.	
3. The EGD supports the implementation of the Paris Agreement and Sustainable Development Goals.	
4. The EGD aims to transform Europe into an inefficient economy.	
5. The European Green Deal includes measures to improve health and quality of life.	
6. All EU sectors and policies are expected to contribute to a fair and inclusive green transition.	
7. The EGD focuses only on energy and climate, ignoring agriculture and industry.	
8. The Farm to Table Strategy is part of the European Green Deal.	
9. The EGD seeks to transform climate and environmental challenges into opportunities.	
10. The European Green Deal is a legally binding treaty between EU countries.	

Task 10. Listen to the audio 8.2 again and answer the questions.

1. When was the European Green Deal presented in the European Parliament?
2. What is the main goal of the European Green Deal?
3. How does the EGD relate to the Paris Agreement?
4. Name three key areas covered by the European Green Deal.
5. What is the target year for Europe to become climate-neutral according to the EGD?

WRITING

Task 11. Think about the following:

- Have you ever written formal letters?
- Do you know their purpose?

A FORMAL LETTER is a type of written communication used in official (professional, administrative, business, legal) communication between institutions, organisations, enterprises, or between officials and citizens. Such a letter has a clear structure, adheres to the standards of formal business style, and contains an official purpose.

Task 12. Read the writing strategy. Do you find writing formal letters difficult or easy? Why?

Letter structure

1. Sender's address: usually located in the upper right corner.
2. Date: follows the sender's address.
3. Recipient's address: located on the left, before the salutation.
4. Salutation: a traditional greeting, for example, 'Dear Mr. Smith.'
5. Body of the letter: main content. Often divided into an introduction, main part and conclusion.
6. Closing: a formal farewell, such as 'Sincerely' or 'Best regards'.
7. Signature: your handwritten signature (for printed letters) and full name.

Rules for writing a formal letter in English

Clarity: avoid unnecessary words, be specific.

Formal style: use an appropriate tone and style for your reader.

Correct choice of words: avoid slang and other informal expressions.

Correctness: use grammatically correct constructions, spelling and punctuation.

Structure: make sure your text has a logical structure.

EcoUkraine LLC
14 Zelena St.
Kyiv, 79000
E-mail: eco@gmail.com
Tel.: (067) 987-65-43
27 May 2025

Head of the Department of Environmental Protection
State Environmental Inspectorate of Ukraine
Kateryna Bondarenko

Regarding permission to conduct a biodiversity survey

Dear Ms Bondarenko,

EcoUkraine LLC respectfully requests your permission to conduct a biodiversity survey in the Kyiv Oblast, aimed at assessing the current state of local ecosystems and monitoring endangered species.

The survey will be carried out in accordance with Ukrainian environmental legislation and international best practices for ecological research. All necessary documentation, including survey protocols and risk assessments, is attached to this letter.

We kindly ask you to consider our request within the established time frame and inform us if any additional conditions or documents are required for approval. Your support will greatly contribute to improving environmental monitoring and conservation efforts in the region.

Thank you in advance for your cooperation and assistance.

Sincerely,
Olena Kryv
Director of EcoUkraine LLC
(067) 987-65-43
eco@gmail.com

Task 13. Imagine, you are the director of an ecological research company. Write a formal letter (120–150 words) to a government agency requesting permission to conduct an environmental or ecological project.

KEY EU ENVIRONMENTAL DOCUMENTS

[COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS A new Circular Economy Action Plan For a cleaner and more competitive Europe](#)

Issued by the European Commission on March 11, 2020, this communication outlines a revitalised strategy—A New Circular Economy Action Plan—aimed at transforming the EU into a cleaner, more competitive, and resource-efficient economy.

[European Green Deal](#)

The European Green Deal outlines an ambitious plan to transform the European Union into a sustainable, climate-neutral, and competitive economy. It seeks to turn environmental and climate challenges into opportunities through inclusive and equitable policies.

[Regulation \(EU\) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations \(EC\) No 401/2009 and \(EU\) 2018/1999 \('European Climate Law'\)](#)

Adopted on 30 June 2021, this regulation creates a binding legal framework to ensure the European Union achieves climate neutrality—i.e., net-zero greenhouse gas emissions etc – by 2050.

[Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions \(integrated pollution prevention and control\) \(recast\) \(Text with EEA relevance\)](#)

Adopted on 24 November 2010, this directive establishes a comprehensive framework to minimize pollution from industrial activities across the European Union by applying an integrated approach to controlling emissions to air, water, and soil. It replaces several earlier directives to create a single, streamlined set of rules.

[Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds \(Codified version\)](#)

Adopted on 30 November 2009 and published in January 2010, this directive is a cornerstone of EU nature conservation law. It aims to protect all naturally occurring wild bird species across EU Member States, along with their eggs, nests, and habitats.

[Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives \(Text with EEA relevance\)](#)

Adopted on 19 November 2008 and entering into force on 12 December 2008, this directive provides a comprehensive legal framework to manage waste across the EU, aiming to protect human health and the environment through minimizing waste generation and improving resource efficiency.

[Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe](#)

Adopted on May 21, 2008, and enforced from June 11, 2010. It consolidates several prior air quality laws into a single directive aimed at reducing air pollution and protecting public health and the environment.

[Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks \(Text with EEA relevance\)](#)

Directive 2007/60/EC, adopted on 23 October 2007, establishes an EU-wide framework for managing flood risks. Its aim is to reduce the negative impacts of flooding on human health, the environment, cultural heritage, and economic activities.

[Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy](#)

Directive 2000/60/EC, known as the Water Framework Directive (WFD), was adopted on 23 October 2000 and came into force on 22 December 2000. It establishes a comprehensive framework for European Union water policy, with the primary goal of achieving “good status” for all water bodies—including rivers, lakes, groundwater, coastal and transitional waters.

[Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora](#)

Adopted on 21 May 1992, this directive aims to preserve biodiversity by conserving natural habitats, wild fauna, and flora across the European Union. It contributes significantly to sustainable development through nature preservation.

[River basin management in a changing climate. Common implementation strategy for the Water Framework Directive and the Floods Directive](#)

This publication presents a unified approach for implementing the EU's Water Framework Directive and Floods Directive considering a changing climate. It outlines strategies for managing water resources and flood risks at the river basin level, aiming to ensure coherent policy delivery across both directives.

[Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources](#)

Council Directive 91/676/EEC, adopted on 12 December 1991, aims to protect surface and groundwater from pollution caused by nitrates originating in agricultural activities, such as overuse of fertilizers and livestock waste.

KEY UKRAINIAN ENVIRONMENTAL ACTS AND POLICIES

[Decree of the President of Ukraine No. 722/2019 'On the Sustainable Development Goals of Ukraine for the period up to 2030'](#)

Decree of the President of Ukraine No. 722/2019 dated 30 September 2019 approves the national Sustainable Development Goals of Ukraine until 2030, adapted in accordance with the global goals proclaimed by the UN General Assembly resolution. These goals cover the economic, social and environmental dimensions of sustainable development, aimed at improving the quality of life of citizens, ensuring equal rights and opportunities for all, and preserving the environment. The main areas of focus include overcoming poverty and hunger, ensuring access to quality education, healthcare, water and energy, as well as combating climate change, preserving ecosystems and biodiversity. This decree serves as the basis for the formation of state policy and the development of relevant programmes and regulations aimed at achieving sustainable development in Ukraine.

[The Law of Ukraine 'On Environmental Protection' \(No. 1264-XII of 25 June 1991\)](#)

The Law of Ukraine 'On Environmental Protection' (No. 1264-XII) defines the legal, economic and social framework for nature protection, regulates the use and reproduction of natural resources, ensures environmental safety and prevents the negative impact of human activity on the environment. It establishes liability for violations of environmental legislation, regulates the powers of public authorities, creates mechanisms for monitoring and restoring natural resources, and serves as the basis for developing Ukraine's environmental policy aimed at sustainable development, biodiversity conservation and improving the quality of life of citizens.

The Water Code of Ukraine (No. 213/95-**BP**)

The Water Code of Ukraine, adopted on 6 June 1995, is the main legislative act regulating relations regarding the ownership, use and disposal of water bodies in the country. The main objectives of this legislation are to ensure the conservation and rational use of water resources, protection of water from pollution, contamination and depletion, restoration of water resources, prevention of harmful effects of water and elimination of their consequences, improvement of the condition of water bodies, and protection of the rights of enterprises, institutions, organisations and citizens to use water. The Code defines the system of state water management bodies, their powers and functions, as well as mechanisms for monitoring compliance with environmental standards and regulations. It establishes liability for violations of water legislation and provides for measures to restore and protect water resources. This Code is the basis for the development and implementation of Ukraine's environmental policy aimed at ensuring sustainable development, preserving water resources and improving the quality of life of citizens.

Subsoil Code of Ukraine (No. 132/94-**BP**)

The Subsoil Code of Ukraine, adopted on 27 July 1994, is the main legislative act regulating mining relations in order to ensure the rational and integrated use of subsoil to meet the needs for mineral raw materials and other needs of social production. The main objectives of this legislation are to protect subsoil, ensure the safety of people, property and the environment when using subsoil, and protect the rights and legitimate interests of enterprises, institutions, organisations and citizens. The Code defines the system of state authorities in the field of geological exploration, use and protection of subsoil, their powers and functions, as well as mechanisms for monitoring compliance with environmental standards and regulations. It establishes liability for violations of water legislation and provides for measures to restore and protect water resources. This Code is the basis for the development and implementation of Ukraine's environmental policy aimed at ensuring

sustainable development, preserving water resources and improving the quality of life of citizens.

[The Law of Ukraine 'On Atmospheric Air Protection' \(No. 2707-XII of 16 October 1992\)](#)

The Law of Ukraine 'On Atmospheric Air Protection' is aimed at preserving and restoring the natural state of atmospheric air, creating favourable conditions for life, ensuring environmental safety and preventing the harmful effects of atmospheric air on human health and the environment. It defines the legal and organisational framework for atmospheric air protection, establishes requirements for the regulation of pollutant emissions, levels of physical and biological impacts, and defines the obligations of business entities to protect atmospheric air. The Law also provides for mechanisms of state control, monitoring and accounting of the state of atmospheric air, and defines liability for violation of legislation in the field of atmospheric air protection. This legal act is the basis for the implementation of the state environmental policy and contributes to sustainable development in Ukraine.

[The Forest Code of Ukraine \(No. 3852-XII of 21 January 1994\)](#)

The Forest Code of Ukraine is the main legislative act regulating relations in the field of use, protection and reproduction of forest resources. The main objectives of this Code are to ensure the rational use of forests, protection of forests from harmful impacts, reproduction of forest resources, as well as ensuring environmental safety and sustainable development of forestry. The Code defines the rights and obligations of forest owners and users, state and local authorities, as well as the mechanisms of control and liability for violations of forest legislation. This legal act is the basis for the implementation of the state environmental policy and contributes to sustainable development in Ukraine.

The Law of Ukraine 'On Wildlife' (No. 2894-III of 13 December 2001)

The Law of Ukraine 'On Wildlife' defines the legal, organisational and economic principles of protection, use and reproduction of wildlife as an integral part of the environment and national wealth. It regulates relations with wild animals that live in the wild, in semi-free conditions or in captivity, on land, in water, soil and air, permanently or temporarily inhabit the territory of Ukraine or belong to the natural resources of its continental shelf and exclusive (maritime) economic zone. The Law establishes the basic principles of wildlife protection, defines the rights and obligations of business entities, state authorities and local self-government bodies, as well as mechanisms for control and liability for violations of legislation in the field of wildlife protection, use and reproduction. This legal act is the basis for the implementation of the state environmental policy and contributes to sustainable development in Ukraine.

Law of Ukraine 'On Environmental Protection' (No. 3055-14)

The Law of Ukraine 'On Environmental Protection' is the main regulatory act defining the legal, organisational and economic framework for environmental protection, environmental safety and sustainable development of Ukraine. It establishes the basic principles of environmental policy, defines the rights and obligations of citizens, enterprises, institutions and organisations in the field of environmental protection, as well as the mechanisms of state management, control and liability for violations of environmental legislation. The law provides for measures to prevent pollution of natural resources, preserve biodiversity, rationally use natural resources, restore ecosystems and provide environmental education and information. This law is the basis for the implementation of the state environmental policy and contributes to sustainable development in Ukraine.

Law of Ukraine 'On the Nature Reserve Fund of Ukraine' (No. 2456-XII)

The Law of Ukraine 'On the Nature Reserve Fund of Ukraine', adopted on 16 June 1992, defines the legal, organisational and economic principles for the creation, protection and use of territories and objects of the nature reserve fund. The main purpose of the law is to preserve natural diversity, ecological balance and ensure sustainable development of natural resources by establishing a special legal regime for natural areas and objects of special environmental, scientific, cultural, aesthetic and recreational value. The Law regulates the classification of nature reserves, their organisation, management, financing, and defines the rights and obligations of state authorities, local governments, enterprises, institutions, organisations and citizens in the field of nature reserve protection. This legal act is the basis for the implementation of the state environmental policy and contributes to sustainable development in Ukraine.

The Law of Ukraine 'On Waste Management' (No. 2320-IX of 20 June 2022)

The Law of Ukraine 'On Waste Management' establishes the legal, organisational and economic framework for the prevention of waste generation, reduction of waste volumes, reduction of harmful effects on the environment and human health, as well as ensuring the rational use of resources. The Law defines the basic principles of waste management, the rights and obligations of business entities, state authorities and local self-government bodies, as well as the mechanisms of control and liability for violations of environmental legislation. It also provides for the establishment and operation of a waste management system, including the development of waste management plans for enterprises, institutions and organisations, as well as the implementation of measures to reduce waste generation and recycling. The Law is aimed at ensuring sustainable development, environmental protection and improving the quality of life of Ukrainian citizens.

The Law of Ukraine 'On Drinking Water and Drinking Water Supply' (No. 2918-III of 10 January 2002)

The Law of Ukraine 'On Drinking Water and Drinking Water Supply' defines the legal, economic and organisational principles of providing the population with quality drinking water, regulates relations in the field of water supply and sewerage, and establishes requirements for the quality of drinking water, organisation of water supply and sewerage, licensing of activities in this area, as well as the rights and obligations of consumers and service providers. The main objective of the law is to ensure public health protection, water conservation and sustainable development of the water sector in Ukraine. The Law also establishes the mechanisms of public administration in the field of drinking water and drinking water supply, defines the powers of executive authorities and local self-government bodies, and provides for measures to ensure transparency and efficiency of service provision in this area.

Order of the Cabinet of Ministers of Ukraine No. 1134-p dated 9 December 2022 'On Approval of the Water Strategy of Ukraine for the period up to 2050'

The Order of the Cabinet of Ministers of Ukraine No. 1134-p dated 9 December 2022 approves the Water Strategy of Ukraine until 2050, which defines the main principles of state policy in the field of water resources use, protection and reproduction. The Strategy is aimed at achieving mutual coherence between the use of water resources and their protection, improving water security and reducing water management risks on the basis of sustainable integrated water resources management. The main challenges that led to the adoption of the Strategy are ensuring equal access to quality and safe drinking water, the poor environmental condition of most surface water bodies, the reduction in the amount of available fresh water resources and the increase in damage from floods and droughts, exacerbated by climate change. The main regulatory acts in this area include the Water Code of Ukraine, the

Subsoil Code of Ukraine, the Laws of Ukraine 'On Environmental Protection', 'On the Ecological Network of Ukraine', 'On Air Protection', and others.

[Resolution of the Cabinet of Ministers of Ukraine No. 439 of 12 May 1997 'On the Concept of Conservation of Biological Diversity of Ukraine'](#)

The Resolution of the Cabinet of Ministers of Ukraine No. 439 of 12 May 1997 approved the Concept of Conservation of Biological Diversity of Ukraine, which defines the main directions and strategy for the protection and restoration of biodiversity in the country. The document is aimed at ensuring sustainable development, preserving natural ecosystems and endangered species, and integrating environmental aspects into various areas of state policy. The concept envisages the development and implementation of national programmes, the creation and maintenance of a network of protected areas, and active public participation in nature protection processes. This legal act is the basis for the development of an effective environmental policy and promotes the integration of efforts of the state, scientific institutions, NGOs and international partners in the field of biodiversity protection.

[Law of Ukraine 'On Environmental Impact Assessment' \(No. 2059-VIII of 23 May 2017\)](#)

The Law of Ukraine 'On Environmental Impact Assessment' introduces the legal and organisational framework for environmental impact assessment (EIA) aimed at preventing environmental damage, ensuring environmental safety and rational use of natural resources. This law defines the procedures for environmental impact assessment for planned economic activities that may have a significant impact on the environment, taking into account state, public and private interests. It sets out the requirements for EIA, including the preparation of environmental impact assessment reports, public discussions,

consultations with stakeholders, and decisions on the admissibility of planned activities. The Law also provides for mechanisms for controlling and monitoring the implementation of measures aimed at reducing negative environmental impacts, and defines liability for violations of environmental legislation. This legal act is the basis for the implementation of the state environmental policy and contributes to sustainable development in Ukraine.

[Law of Ukraine 'On Strategic Environmental Assessment' \(No. 2354-VIII of 20 March 2018\)](#)

The Law of Ukraine 'On Strategic Environmental Assessment' (SEA) establishes the legal and organisational framework for assessing the environmental impacts of state planning documents, in particular in urban planning, energy, agriculture and infrastructure. The purpose of the law is to ensure environmental safety, sustainable development of territories and integration of environmental aspects at the early stages of planning. The law provides for mandatory environmental impact assessment for documents that may have a significant impact on the environment, taking into account public discussions and stakeholder participation. It also defines the procedures for conducting SEA, including preparation of reports, consultations with the public and authorities, and mechanisms for monitoring and controlling the implementation of plans. This law is an important tool in ensuring transparency and accountability of state planning, promoting the integration of environmental principles into decision-making processes.




Law of Ukraine 'On the Basic Principles of the State Climate Policy' (No. 3991-IX of 8 October 2024)

This law establishes the legal and organisational framework for the state climate policy of Ukraine aimed at achieving climate neutrality by 2050. The main objectives are to mitigate the effects of climate change, adapt to new climate conditions, ensure low-carbon and sustainable development, as well as environmental, food and energy security of the country. The Law provides for the development and implementation of the Long-Term Low-Carbon Development Strategy, the nationally determined contribution to the Paris Agreement, the Climate Change Adaptation Strategy and other sectoral programmes. It also defines the mechanisms for monitoring, assessing and forecasting climate change, as well as instruments for financing and incentivising business entities to reduce greenhouse gas emissions. The Law promotes the integration of climate goals into all areas of state policy and ensures the fulfilment of Ukraine's international commitments in the field of climate change.

GRAMMAR REVIEW

PRESENT SIMPLE TENSE

Present Simple Tense is used to refer to actions that take place in the present.

		
I run	I don't run	Do I run?
You run	You don't run	Do you run?
He / She / It runs*	He / she / it doesn't run	Does he / she / it run?
We run	We don't run	Do we run?
You run	You don't run	Do you run?
They run	They don't run	Do they run?

* In an affirmative sentence, most verbs in the third person singular (*he, she, it*) have the ending *-s*. The ending *-es* is added:

if the verb stem ends in *-s, -ss, -sh, -ch, -tch, -x*:

to press — presses

to mash — mashes

to fix — fixes

if the verb stem ends in *-y* with a preceding consonant, with the letter *y* changing to *i* before *-es*:

to tidy — tidies

to try — tries

But: If there is a preceding vowel before *y*, then only the ending *-s* is added:

to prey — preys

to pray — prays

if the verb stem ends in *-o*:

to do — does

to go — goes

WE USE PRESENT SIMPLE TENSE

1. To express a repetitive or continuous action

Lily checks her email every morning.

2. To express an action that characterises an object permanently

His partner defines the issues very well.

3. When we talk about facts or absolute truths

The ice melts at room temperature.

4. When we talk about habits and hobbies

They clean their rooms every Saturday.

5. When we talk about a timetable (even if it's for the future)

The plane arrives at 10.

The lecture starts in 10 minutes.


ADVERBS OF FREQUENCY

Always, often, usually, sometimes, rarely, seldom, hardly ever, never are usually placed before the main verb, but after the auxiliaries (do, does), including to be (*am, is, are*) and their derivatives.


We are always glad to see our colleagues from Poland.

Susan does not often write ecological reports.

EXERCISES

 Exercise 1: Fill in the blanks with the correct form of the verb in Present Simple.

1. As we know, the wind turbines _____ (generate) electricity without pollution.
2. The Earth _____ (need) people's help more than ever.
3. Plastic objects _____ (not / decompose) for centuries.
4. Why _____ people often (ignore) the global warming?
5. How often _____ your family _____ (recycle) paper at home?
6. These organizations _____ (promote) recycling in rural areas too.
7. Bees _____ (play) a main role in pollination.
8. They usually _____ (walk) to university to reduce carbon emissions.
9. Our institute regularly _____ (organize) clean-up events in the city's parks.
10. Their company _____ (not / use) plastic bags anymore in their office.

 Exercise 2: Put the verbs in brackets into the Present Simple tense.


1. The recycling factory _____ (not / accept) aluminum tins.
2. Local volunteers _____ (collect) waste from the central park every weekend.
3. The Martines never _____ (throw) batteries into the regular bin.
4. Regional farmers _____ (use) sustainable farming methods.
5. Large plants sometimes _____ (ignore) environmental rules.
6. What time _____ the nature reservation _____ (close)?
7. The mayor team usually _____ (support) ecologically-friendly initiatives.
8. The river near our village often _____ (overflow) after heavy rain.
9. Forest fires _____ (damage) ecosystems badly.
10. Why _____ they always _____ (use) bottled water?

 Exercise 3: Make questions in Present Simple.

1. _____ their university promote eco-projects?
2. What kind of energy _____ Ukraine use most?
3. Where _____ local people usually throw plastic waste?
4. _____ their company provide recycling bins?
5. When _____ the climate summit conference start?
6. _____ animals and plants suffer because of deforestation?
7. What _____ international scientists say about global warming?
8. How _____ the local farmers conserve water?
9. _____ they have enough green zones in their town?
10. What _____ the government do to protect the environment?


 Exercise 4: Choose the correct verb form (Present Simple).

1. The Earth (need / needs) protection.
2. George (don't / doesn't) care about recycling.
3. Miss Diana always (take / takes) part in environmental protests.
4. Trees (clean / cleans) the air we breathe.
5. The local community (use / uses) solar energy.
6. My family (don't / doesn't) waste electricity at home.
7. That film (show / shows) the effects of plastic pollution.
8. The students (plant / plants) trees in the town zones every spring.
9. The ozone layer (protect / protects) us from UV rays.
10. What (do / does) your friends do to help the environment?


 Exercise 5: Complete the sentences with words from the box and put the verbs in Present Simple.

use	reduce	pollute	take	buy
harm	throw	recycle	save	drive

1. People often _____ too much plastic products.
2. Factories _____ the air if they don't follow the rules.
3. Her parents _____ cloth bags instead of plastic ones.
4. That enterprise _____ water and energy.
5. We never _____ batteries – we use rechargeable ones.
6. Our students _____ part in eco-projects four times a year.
7. The local authority _____ renewable sources like wind and solar power.
8. Many companies still _____ sewage into rivers.
9. School children _____ cardboard and paper.
10. Ecological habits _____ the environment a lot.

 Exercise 6: Fill in the gaps with the correct form of the verb in Present Simple.

1. The Amazon rainforest ____ (produce) a large amount of the world's oxygen.
2. People usually ____ (throw) away a lot of plastic bottles every day.
3. Our local recycling center ____ (collect) glass, paper, and metal.
4. Water pollution often ____ (affect) the health of marine animals.
5. The Earth ____ (need) forests to regulate the climate.
6. Many endangered species ____ (depend) on protected habitats.
7. Climate change ____ (cause) more extreme weather events.
8. The organization ____ (work) on projects to reduce carbon emissions.
9. Bees ____ (play) an important role in pollination.
10. The government often ____ (support) campaigns about renewable energy.

 Exercise 7: Correct the mistakes in the sentences (rewrite them correctly in Present Simple).




1. People uses too much water when they wash cars.
2. The ozone layer protects us from the sun's harmful rays?
3. Wind turbines creates electricity from natural energy.
4. The climate in desert regions do not change much.
5. Farmers depends on rain for their crops.
6. Our city council promote public transport to reduce pollution.
7. Plastic waste end up in the oceans every year.
8. Every student study the principles of ecology at school.
9. The organization always support green projects.
10. Trees provides shade and cleaner air.

Exercise 8: Choose the correct answer.

1. Their families always _____ their rubbish.
a) recycle
b) recycles
c) recycling
d) recycled
2. What time _____ the botanical garden open?
a) do
b) is
c) are
d) does
3. Waste management and energy production _____ air pollution.
a) cause
b) causes
c) are cause
d) caused
4. His partner _____ a reusable bottle in the office every day.
a) carry
b) carrying
c) carries
d) carried
5. Why _____ that private enterprise waste so much paper?
a) do
b) are
c) does
d) did

PRESENT CONTINUOUS TENSE

Present Continuous Tense usually refers to a process that is ongoing at the time of speaking. This can be indicated by the context or by words such as now, at the moment, at present, today, these days.

		
I am running	I'm not running	Am I running?
You are running	You aren't running	Are you running?
He / she / it is running	He / she / it isn't running	Is he / she / it running?
We are running	We aren't running	Are we running?
You are running	You aren't running	Are you running?
They are running	They aren't running	Are they running?

The final *-e* of the verb stem falls before *-ing*:

to care – caring

to give – ging

However, two *-ee* remain before the ending *-ing*:

to agree – ageeing

to see – seeing

If the verb stem ends in *-ie*, these vowels are replaced with *-y*:

to lie – lying

to tie – tying

The ending *-y* does not change:

to marry – marrying

The final consonant is doubled in writing when preceded by a short stressed vowel:

to run – runing

WE USE PRESENT CONTINUOUS TENSE

1. The action takes place at the moment of speech:

The professor is carrying out the experiment now.

2. Planned action in the nearest future:


They are landing in Tokyo in 30 minutes.

3. When someone's behaviour is annoying (with the word always):

Why is this student always interrupting the teacher?

Gregory is always shouting at his managers.

EXERCISES

 Exercise 1: Fill in the blanks with the Present Continuous form of the verb.

1. Agricultural farms _____ (release) harmful gases into the air.

2. They _____ (not / drive) to the office these days – they're walking!

3. The local authority _____ (invest) in renewable energy sources.

4. The students _____ (plant) young trees in the town park later.

5. Look! Some people _____ (clean) the beach at this moment. They're volunteers.

6. Why _____ they _____ (use) plastic bottles in the cafe again?

7. People _____ (become) more aware of climate change.

8. More agronomists _____ (switch) to organic methods for their farm land.

9. Who _____ (speak) about Interactive Sustainability Metrics Table at the conference?

10. Scientists _____ (study) the impact of pollution on marine life of the Black Sea.

 Exercise 2: Put the verbs in brackets into Present Continuous.


1. The European Union _____ (try) to reduce CO₂ emissions.
2. The sea level _____ (rise) every spring.
3. The conference experts _____ (discuss) new ways to protect the global environment.
4. More local habitants _____ (use) reusable bags now.
5. What _____ you _____ (do) to help the ecosystem?
6. Activists _____ (not / wait) for politician desicions – they're taking action.
7. They _____ (build) a wind farm near the sea coast.
8. That European city _____ (improve) its recycling system.
9. Look! That chemical company _____ (pollute) the river again.
10. High schools _____ (teach) their students about environmental problems.

 Exercise 3: Make questions using Present Continuous.

1. What _____ the authority _____ (do) to reduce noise pollution?
2. _____ epy greedy entrepreneurs still _____ (cut) down forests?
3. Why _____ James _____ (carry) plastic bags from his car?
4. _____ we _____ (use) too much electricity in the office?
5. Who _____ (write) the new climate report?
6. What kind of energy _____ the partners _____ (promote)?
7. Where _____ they _____ (go) with those cans?
8. _____ your institute _____ (join) any environmental projects?
9. What _____ scientists _____ (learn) from the latest data for the ecology report?
10. _____ laboratory _____ (follow) new regulations?


 Exercise 4: Choose the correct Present Continuous form.

1. They (renovate / are renovating) their solar panels in the company.
2. My flatmates (not use / aren't using) plastic this month.
3. What (are / is) Ann doing with those recycling bottles?
4. Young people (are becoming / become) more eco-conscious.
5. Pharmacy company (are not following / do not follow) the rules again.
6. The students (help / are helping) clean the local park this Friday.
7. He (is giving / gives) a report about sustainability now.
8. What (do they do / are they doing) to reduce your carbon footprint?
9. The government (launches / is launching) a new green campaign.
10. My groupmates (take / am taking) part in an eco-challenge this week.


 Exercise 5: Complete the sentences with Present Continuous verbs and vocabulary from the box.

increase	reduce	protest	speak	build
work	burn	throw	recycle	plant

1. The activists _____ outside the city assembly hall.
2. The power station engineers _____ a new water-purifying system.
3. The municipal specialists _____ hundreds of trees in deforested areas.
4. Students _____ about climate justice in the lecture class.
5. More people _____ their plastic waste properly.
6. That chemical plant _____ too many fossil fuels again.
7. Cities _____ their use of public transportation.
8. Some farmers _____ to ban toxic pesticides.
9. They _____ hard to find eco-friendly solutions.
10. Look! Someone _____ trash in the pond again!

 Exercise 6: Fill in the blanks with the Present Continuous form of the verb.

1. Scientists ____ (study) the effects of climate change on Arctic animals.
2. Volunteers ____ (plant) trees in the city park this week.
3. The government ____ (introduce) new laws to reduce plastic waste.
4. Fishermen ____ (use) more sustainable methods to protect marine life.
5. People in many countries ____ (switch) to renewable energy sources.
6. Students ____ (organize) a clean-up event near the river right now.
7. The polar ice caps ____ (melt) faster than ever before.
8. Farmers ____ (try) new techniques to save water.
9. Our school ____ (run) a campaign about recycling this month.
10. Companies ____ (develop) eco-friendly packaging to replace plastic.

 Exercise 7: Choose the correct form of the verb in Present Continuous.

1. Activists (are fighting / fight) against deforestation in the Amazon.
2. Scientists (are monitoring / monitor) air pollution in big cities.
3. The world's population (is increasing / increases) very quickly.
4. A group of students (are preparing / prepare) posters about clean energy.
5. Environmental organizations (is holding / are holding) a conference today.
6. Farmers (is planting / are planting) crops that use less water.
7. People (are using / use) more bicycles instead of cars these days.
8. Our class (are making / is making) a presentation on endangered species.
9. Waste levels (are growing / grows) in many developing countries.
10. A lot of scientists (are working / work) on new solutions to climate change.

Exercise 8: Choose the correct answer.

1. What _____ they _____ at the moment?
a) do / do
b) are / doing
c) are / do
d) is / doing
2. The local people _____ their old electronics at a recycling center.
a) are bringing
b) bring
c) bringing
d) are bring
3. The air pollution levels _____ in many countries.
a) increases
b) increasing
c) is increasing
d) are increasing
4. Lily _____ a project on clean water access.
a) works
b) working
c) is work
d) is working
5. Why _____ the lake _____ dark brown?
a) is / turn
b) does / turning
c) is / turning
d) do / turn
6. His friend _____ on a climate change project.
a) am working
b) work
c) working
d) is working
7. Our lecturer _____ about zero-waste lifestyles.
a) talk
b) is talking
c) talks
d) talking
8. They _____ new recycling bins around the school.
a) place
b) are placing
c) placing
d) are place
9. The rainforests _____ because of logging in the South America.
a) disappearing
b) are disappearing
c) disappear
d) is disappearing

STATIVE VERBS

State verbs are verbs that describe a state, feeling or perception. State verbs are not usually used in the Present Continuous Tense because they do not describe a process of action.

The cases	State verbs
Likes or dislikes	to like, to love, to dislike, to hate, to enjoy, to prefer, to adore
Everything we perceive with our senses	to feel, to see, to look, to hear, to sound, to smell, to taste
Everything we accept in general	to know, to believe, to understand, to realize, to remember, to forget, to notice, to think, to seem
Verbs that express other states	to want, to contain, to include, to belong, to need, to matter, to cost, to mean, to own, to have (to possess)

Compare:

I think she is beautiful. - I think she's beautiful, (I always think so)

I'm thinking about her. - I'm thinking about her, (I'm thinking of her now)

This meat tastes awful. - This meat tastes terrible, (taste description)

I'm tasting the meat. - I taste the meat, (action without describing the taste)

I see some trees far away. - I see some trees in the distance, (I look and see)

I'm seeing Mark. - I am dating Mark, (I am in a relationship with him)

I'm seeing my lawyer tomorrow. - Tomorrow I have a meeting with a lawyer, (planned meeting)

It looks perfect. - It looks perfect, (characteristic)

The dog is looking at the door. - The dog looks at the door, (action)

These flowers smell nice. - These flowers have a pleasant smell,
(characteristic)

Cat is smelling the milk. - A cat sniffs milk, (action)


He is a rude person. - He is rude, (characteristic)

He is being rude. - He behaves rudely, (behaviour)

Mike has his own car. - Mike has his own car, (description)


Mike is having a shower now. - Mike is taking a shower now, (action)

EXERCISES

 Exercise 1: Fill in the blanks with the correct form – Present Simple or Present Continuous.

1. More people usually _____ (think) recycling is easy, but many still don't do it.
2. The sun _____ (shine) and the solar panels _____ (generate) energy right now.
3. My cousin Freddy _____ (work) for an environmental NGO these days.
4. They _____ (not use) plastic bags in this supermarket anymore.
5. Listen! The birds _____ (sing), so spring _____ (come)!
6. Chemical plants often _____ (pollute) the rivers near big cities.
7. The specialists _____ (build) a new wind farm on the sea coast at the moment.
8. We _____ (believe) that climate change is the most serious threat we face.

9. Look! The ice _____ (melt) much faster than before.
10. The Earth _____ (orbit) the sun, not the other way around.


 Exercise 2: Choose the correct option. (Present Simple, Present Continuous, Stative Verbs)

1. They _____ that reducing single-use plastic is important.
a) are believing b) believe c) believes
2. Right now, our scientific specialists _____ the coast for signs of pollution.
a) monitor b) are monitoring c) monitors
3. Alfred _____ a video on ocean waste at the moment.
a) watches b) is watching c) watching
4. Some students in our class _____ that climate change isn't real.
a) think b) are thinking c) is thinking
5. Jane _____ the smell of smoke in the air next to her room.
a) notice b) am noticing c) noticing
6. The workers _____ to install solar panels on the buldind roof now.
a) try b) trying c) are trying
7. The managers _____ meetings every Wednesday to discuss green policies.
a) has b) have c) are having
8. Susan _____ very tired tonight because she _____ a climate strike.
a) feels / is joining b) is feeling / joins c) is feeling / is joining
9. Why _____ you _____ so many lights in the hall?
a) do / use b) are / using c) do / using
10. Mr Collins _____ this material is sustainable.
a) knows b) is knowing c) know

Exercise 3: Complete the sentences using the correct tense and verb form. Focus on stative verbs:


know	like	love	prefer	hate
seem	believe	understand	need	want

1. Many students _____ (want) to learn more about eco-friendly food production.
2. Miss Jane _____ (not like) the way this factory uses the environment.
3. We _____ (understand) why reusing some materials is important.
4. Their green policy _____ (seem) honest and fair.
5. Edward _____ (believe) everyone has a role in protecting the Earth.
6. The scientists _____ (need) more time to carry on those experiments.
7. My sister _____ (prefer) walking to using buses or taxis.
8. My parents really _____ (love) spending time in nature.
9. Old people usually _____ (not know) where to dispose of e-waste.
10. The students _____ (hate) wasting water during summer.


 Exercise 4: Fill in the gaps with Present Simple, Present Continuous or a stative verb.

1. Daniella _____ (look) great with your eco-friendly handmade shopper!
2. We _____ (not believe) that gas companies take care about the environment.
3. The local forest _____ (get) smaller every season.
4. My friend _____ (enjoy) her trip to the nature reserve at this moment.
5. We _____ (not think) they understand how serious the problem is.
6. These flowers _____ (need) a little water.
7. What _____ the students _____ (do) this Friday for the green challenge?
8. His uncle _____ (support) local farmers.
9. Granny _____ (hear) the rain drops – close the door, please!


10. Mr Franklin _____ (not agree) with the new law on plastic packaging in the government.

 Exercise 5: Mixed Practice (Fill the gaps with the right tense/form)

1. The water in stream _____ (flow) much slower today than earlier.
2. This park usually _____ (attract) great attention from tourists.
3. Mr Dredmond _____ (run) a campaign to ban single-use plastics this week.
4. What _____ (make) that loud and annoying noise?
5. Our tutor _____ (not allow) plastic glasses in the laboratory.
6. The future ecologists _____ (attend) a lecture on green technology right now.
7. You _____ (not see) the problem of cutting down so many trees.
8. That decision _____ (sound) rather effective.
9. Why _____ her neighbours _____ (burn) leaves again?
10. The sea levels _____ (rise) quickly over the years.

 Exercise 6: Correct the sentences. Some verbs should NOT be in the Present Continuous. Rewrite them in the Present Simple.

1. People are knowing that pollution is a serious problem.
2. The forest is belonging to a protected natural reserve.
3. I am seeing many birds in the park today.
4. Scientists are understanding the importance of biodiversity.
5. This organization is having more than 200 volunteers.
6. Our city is seeming cleaner after the recycling campaign.
7. Students are liking the new environmental project.
8. That river is containing dangerous chemicals.
9. The farmers are owning large areas of organic land.
10. She is believing that renewable energy is the future.

 Exercise 7: Choose the correct form of the verb (Present Simple or Present Continuous).

1. The Amazon rainforest (contains / is containing) thousands of unique plant species.
2. Our school (is organizing / has) a clean-up event this week.
3. The air in big cities (smells / is smelling) terrible because of traffic.
4. They (think / are thinking) that protecting endangered animals is very important.
5. Many students (love / are loving) learning about climate change.
6. This solution (seems / is seeming) too expensive for poor countries.
7. The activists (are working / believe) in the importance of solar energy.
8. That area (belongs / is belonging) to a national park.
9. I (am seeing / see) fewer plastic bottles in the river these days.
10. We (know / are knowing) that deforestation is a global problem.

Exercise 8: Choose the correct answer.

1. Martin _____ a lot of information about renewable energy.
a) know b) is knowing c) knows
2. What _____ right now next to the building 5?
a) are you doing b) you doing c) do you do
3. He _____ the crops for signs of disease at the moment.
a) check b) checks c) is checking
4. My parents always _____ the trash before they recycle.
a) sort b) sorts c) are sorting
5. The sky _____ really clear. I think it won't rain.
a) looking b) looks c) is looking
6. Her brother _____ this new environmental app on his laptop.
a) like know b) am liking c) likes
7. Our partners _____ an eco-friendly campaign this week.
a) start b) starting c) are starting

8. Why _____ your relatives _____ plastic bags for shopping?

a) do / use b) are / using c) does / using

9. Their partners _____ very interested in eco-volunteering.

a) seeming b) are seeming c) seems




10. That material _____ to be biodegradable for our experiments.




a) appears b) is appearing c) appearing

PAST SIMPLE TENSE

Past Simple Tense is used to refer to actions that took place in the past.

Past Simple of the verb *to be*

		
I was	I wasn't	Was I ...?
You were	You weren't	Were you ...?
He / She / It was	He / she / it wasn't	Was he / she / it ...?
We were	We weren't	Were we ...?
You were	You weren't	Were you ...?
They were	They weren't	Were they ...?

		
I jogged	I didn't jog	Did I jog?
You jogged	You didn't jog	Did you jog?
He / She / It jogged	He / she / it didn't jog	Did he / she / it jog?
We jogged	We didn't jog	Did we jog?
You jogged	You didn't jog	Did you jog?
They jogged	They didn't jog	Did they jog?

Past Simple Tense of regular verbs

if the infinitive or initial form of the verb ends in *-e* or *-ee*, add *-d*:

to type – typed

to agree – agreed

if the verb ends in a single consonant preceded by a short stressed vowel, the consonant is doubled + *-ed*:

to jog – jogged

to permit – permitted

Exception: the final *-x* is never doubled: to fix – fixed

WE USE THE PAST SIMPLE TENSE

1. The action started and ended in the past.

We saw that presentation yesterday.


Last week, they went to the conference.

2. Actions in the past that occurred one after the other.

Den finished project, went to the library, and found a similar results to learn.

Our partner arrived from the airport at 9:00, checked into the hostel at 10:00, and met us at 11:00 at the university hall.

EXERCISES

 Exercise 1: Fill in the blanks with the correct Past Simple form of the verb in brackets.

1. Last week, our faculty _____ (organize) a recycling conference.
2. The volunteers _____ (collect) over 50 sacks of trash.
3. He _____ (not know) that some materials could take centuries to decompose.
4. The chemical enterprise _____ (emit) harmful liquids into the river.
5. The students _____ (plant) 30 trees on Earth Day.
6. Mary _____ (join) an environmental NGO in 2025.
7. We _____ (not reduce) our carbon footprint last year.
8. The lecturer _____ (show) a documentary about water pollution.
9. That old man _____ (forget) to turn off the lights in the rooms.
10. Their company _____ (launch) a new eco-friendly product.

 Exercise 2: Choose the correct verb in Past Simple.

1. Our organisation _____ a clean-up event near the local waterfall.
a) have b) has c) had

2. That company _____ a campaign to stop illegal logging.
a) start b) started c) starts
3. The strong wind _____ a lot of trees in our area.
a) damage b) damaged c) damages
4. We _____ about climate change in the course.
a) learn b) learned c) learning
5. The administrator _____ plastic straws and plastic glasses last month.
a) banned b) ban c) banning
6. She _____ to reduce water usage in her community.
a) try b) trying c) tried
7. The green party politician _____ new recycling laws.
a) introduce b) introducing c) introduced
8. Aunt Donna _____ her reusable bag again!
a) forgot b) forget c) forgets
9. Billy _____ the garbage before the rain started.
a) picks b) picked c) picking
10. The green department workers _____ a new green space in the city center.
a) create b) created c) creating




Exercise 3: Rewrite the sentences in the Past Simple.

Example: We clean the beach. → We cleaned the beach.

1. Fred takes part in an environmental protest.
2. We organize a tree-planting event.
3. Your neighbours don't recycle their paper.
4. The politicians support the local eco-project.
5. Granny turns off the lights.
6. The students organize the eco-party.
7. The authority bans plastic bags and cutlery.


8. My sister writes an article about climate change.
9. They help the community park zone.
10. This company launches a solar power project.

 Exercise 4: Complete the sentences with the correct negative or question form.

1. They _____ (not attend) the eco workshop last Wednesday.
2. _____ Susan _____ (know) about the air pollution in this area?
3. We _____ (not use) any single-use plastics last month.
4. What time _____ the eco-party _____ (start)?
5. They _____ (not recycle) old batteries.
6. _____ they _____ (see) the new green energy exhibit?
7. That company _____ (not install) wind farm equipment in 2024.
8. Where _____ the conference _____ (take place)?
9. Ruth _____ (not speak) about climate changes.
10. When _____ our groupmates _____ (begin) the eco-event?

 Exercise 5: Mixed Fill-in-the-Blank Practice

1. Our students _____ (visit) the recycling plant last Tuesday.
2. Ursula _____ (forget) to bring her reusable cup in the office.
3. We _____ (not attend) the tree-planting event because of stormy weather.
4. The tutor _____ (demonstrate) the presentation on ocean pollution.
5. The school _____ (renovate) a new eco-friendly classroom.
6. Leo _____ (not answer) the questionnaire.
7. We _____ (see) a documentary about marine life.
8. Your parents _____ (not stop) using plastic bags completely.
9. The company partners _____ (travel) across the region.
10. The students _____ (learn) about sustainable living during his lecture.

 Exercise 6: Put the verbs in brackets into the Past Simple.

1. Last year our class ____ (organize) a project on waste reduction.
2. We ____ (collect) more than 200 kilograms of plastic bottles.
3. The volunteers ____ (clean) the local park on Saturday.
4. Scientists ____ (discover) a new endangered species in the rainforest.
5. My friend ____ (join) an environmental organization last summer.
6. The city council ____ (introduce) new recycling bins in 2022.
7. The company ____ (reduce) its carbon emissions by 15% last year.
8. We ____ (visit) the national park during our summer holidays.
9. The government ____ (ban) single-use plastic bags two years ago.
10. Our teacher ____ (explain) the importance of biodiversity in yesterday's class.

 Exercise 7: Choose the correct form of the verb (Past Simple).




1. Last month we (plant / planted) 50 trees near the school.
2. The river (looked / looks) much cleaner after the clean-up.
3. They (don't recycle / didn't recycle) their waste until last year.
4. The students (studied / study) renewable energy sources in their last lesson.
5. We (saw / see) dolphins during our trip to the Black Sea.
6. Many factories (reduced / reduce) water pollution in 2021.
7. The activists (didn't stop / don't stop) their campaign against deforestation.
8. Our city (started / starts) a new green project last spring.
9. The children (learned / learn) about climate change yesterday.
10. Greenpeace (organized / organizes) a protest last week.

Exercise 8: Choose the correct answer.

1. The students _____ a water conservation video.
a) watched b) watch c) watching
2. Boris _____ his car to university last week.
a) drive b) drove c) driven
3. The campaign _____ a huge impact to the community.
a) has b) had c) have
4. The activists _____ about climate policy in the conference.
a) spoke b) speak c) spoken
5. Mr Gray _____ his presentation last Thursday.
a) gave b) give c) given
6. Your uncle Bens _____ the lights when he left the kitchen.
a) turned off b) turn off c) turning off
7. My father _____ a letter to the authority yesterday.
a) wrote b) write c) writes
8. The fire _____ hundreds of trees on that area.
a) destroyed b) destroy c) destroying
9. _____ they _____ the eco market last week?
a) Do / visit b) Did / visit c) Have / visited
10. Her neighbours _____ their rubbish properly.
a) sorted b) sort c) sorting

PAST CONTINUOUS TENSE

Past Continuous Tense indicates a process that took place at a certain moment or period in the past. In contrast to the Past Simple Tense, this moment is either mentioned directly rather than indirectly (e.g. yesterday at 5 o'clock, when you called, when the rain started) or it is clear from the context.

		
I was running*	I wasn't running	Was I running?
You were running	You weren't running	Were you running?
He / She / It was running	He / she / it wasn't running	Was he / she / it running?
We were running	We weren't running	Were we running?
You were running	You weren't running	Were you running?
They were running	They weren't running	Were they running?

*To form the Past Continuous Tense, you need to use the verb *to be* in the past tense (Past Simple Tense) and the participle of the main verb in the present tense (Participle I).

WE USE PAST CONTINUOUS TENSE

1. Indicate a process that took place at a specific time in the past:
In the evening their elevator wasn't working.

2. Two or more actions took place at the same time:


Helen was doing a project when he was working with the presentation.

3. One action was ongoing (taking place), and another interrupted it:

Lily was typing the report when someone knocked at the door.


Please note that the action that interrupted is shorter in length and is expressed using the *Past Simple Tense*.

EXERCISES

 Exercise 1: Fill in the blanks with the correct form of the Past Continuous.

Use the correct form of was/were + verb-ing.

1. At 9 a.m., we _____ (clean) the beach with local volunteers.
2. While she _____ (plant) trees, it started to rain.
3. The students _____ (discuss) climate change during the lesson.
4. They _____ (not recycle) properly when the inspector arrived.
5. I _____ (read) an article about global warming yesterday.
6. While we _____ (walk) through the forest, we saw plastic waste.
7. The sun _____ (shine), and the birds _____ (sing).
8. What _____ you _____ (do) at the eco-fair last weekend?
9. He _____ (watch) a documentary about endangered species.
10. People _____ (not pay) attention to the energy-saving tips.

 Exercise 2: Choose the correct verb form (Past Continuous or Past Simple).

1. Teo _____ (was picking / picked) up plastic bottles in the park when it started to rain.
2. The workers _____ (built / were building) a solar panel when the electricity went off.
3. My group _____ (was planting / planted) flowers all morning.
4. While Helen _____ (recycled / was recycling) newspapers, she found an old granny's photo.
5. The students _____ (were watching / watched) a short video about pollution.
6. When the delegation arrived, we _____ (cleaned / were cleaning) the park square.
7. While his parents _____ (had / were having) dinner, the lights went out.

8. Peter _____ (was riding / rode) his bike to the eco-rally.
9. The water in the stream _____ (was flowing / flowed) quickly after the heavy rains.
10. What _____ your sister _____ (was doing / did do) when she came back home from the long journey?

 Exercise 3: Correct the mistakes in the sentences. One verb is wrong in each sentence.

1. The environmentalists was discussing a new green project.
2. Jessica were reading an article about nature in that journal.
3. The schoolchildren planting flowers in the schoolyard.
4. My groupmates was preparing posters for Earth Day.
5. My family didn't was using plastic bags at that time.
6. Were they watched the documentary about the marine life of the Black Sea?
7. His friends was not helping the cleanup team during the city eco-event.
8. People were talks about water shortage when we demonstrated our table on the board.
9. The city mayor was speaks at the climate conference.
10. It were raining when we arrived to our relative's place.

 Exercise 4: Make questions in Past Continuous.

Example: (you / work / on the project?) → Were you working on the project?

1. (volunteers / collect / trash in the park zone?)
2. (Melonie / watch / a wildnature video?)
3. (it / rain / during the flower planting?)
4. (Mr Gregory / drive / to the eco-center?)
5. (she / talk / about recycling plastic in our area?)
6. (the students / give / their climate presentations?)

7. (your family / use / single-use plastic at home?)
8. (the schoolchildren / participate / in the cleanup on the beach?)
9. (the managers team / campaign / for clean energy?)
10. (your groupmates / prepare / the report on biodiversity?)

 Exercise 5: Combine the sentences using "while" or "when."

1. We cleaned the river bank. A reporter arrived.
→ *We were cleaning the river bank when a reporter arrived.*

Now you try:

2. We picked up trash on the beach. It started to rain.
3. My sisters walked through the park. They saw illegal dumping.
4. The volunteers distributed eco-flyers. People asked questions.
5. We held signs. The speaker gave a speech.
6. The wind blew strongly. They collected plastic bottles.
7. The activists marched. My friends joined them.
8. The students watched the wildlife in the forest. Someone made a loud noise.
9. I drove to the green market. My mother called.
10. The children cleaned the sportground next to their school. The teacher took pictures.

 Exercise 6: Put the verbs in brackets into the Past Continuous.

1. At 8 o'clock yesterday morning, the students ____ (collect) litter in the park.
2. While we ____ (plant) trees, the rain started.
3. The scientists ____ (study) the effects of pollution when we visited the lab.
4. The activists ____ (organize) a protest against deforestation all day long.
5. At that moment, the factory ____ (release) harmful gases into the air.

6. While the teacher ____ (explain) renewable energy, some students were taking notes.
7. The volunteers ____ (work) on the beach clean-up project last weekend.
8. When I arrived, they ____ (discuss) recycling solutions.
9. The children ____ (watch) a documentary about endangered animals in class.
10. The organization ____ (prepare) a new campaign against climate change yesterday afternoon.



Exercise 7: Complete the sentences with the correct form of the verb (Past Continuous).




1. We ____ (not listen) to the lecture because we ____ (read) about global warming instead.
2. The government ____ (plan) new environmental laws while scientists ____ (warn) about climate change.
3. At that time, the company ____ (not invest) in renewable energy sources.
4. The students ____ (prepare) posters for Earth Day all morning.
5. While the activists ____ (speak) to the media, supporters ____ (hand out) flyers.
6. They ____ (not recycle) properly when the teacher checked their homework.
7. While I ____ (walk) through the forest, I saw people who ____ (cut down) trees.
8. The class ____ (not work) on the project yesterday afternoon because they ____ (visit) a recycling center.
9. The volunteers ____ (collect) plastic bottles when the rain began.
10. The mayor ____ (give) a speech about sustainability while people ____ (protest) outside the city hall.

Exercise 6: Choose the correct answer.

1. Ruth _____ her presentation on pollution problems all morning.
a) prepare b) was preparing c) prepared
2. We _____ the national park when they saw a deer.
a) walked b) walking c) were walking
3. While the students _____ about recycling, the bell rang.
a) were b) discussed c) are
discussing discussing
4. What _____ your friend _____ at the workshop?
a) did / do b) was / doing c) were / do
5. The schoolchildren _____ a video about the climate crisis in their country.
a) watched b) were watching c) was watching
6. It _____ when we left the eco-camp.
a) rained b) was raining c) raining
7. The _____ posters for the protest.
a) were making b) made c) are making
8. The main engineer _____ a speech about clean energy at the conference.
a) was giving b) gave c) is giving
9. Zack _____ a plastic bottle into the wrong bin.
a) was throwing b) threw c) threw
10. While I _____ my bike, I saw a group of activists.
a) drive b) was driving c) drove

USED TO & WOULD

USED TO – one of the modal verbs in English (or semi-modal verbs), used only in the past tense.

		
I used to run	I didn't use to run	Did I use to run?
You used to run	You didn't use to run	Did you use to run?
He / She / It used to run	He / she / it didn't use to run	Did he / she / it use to run?
We used to run	We didn't use to run	Did we use to run?
You used to run	You didn't use to run	Did you use to run?
They used to run	They didn't use to run	Did they use to run?

We used to go to the laboratory every day.

We did not use to think of computer as a common thing when we were younger.

Did they use to invite you to open the conferences?

WE USE USED TO & WOULD

1. USED TO expresses an action that was repeatedly performed in the past and became a habit, but is no longer performed or relevant at the present time.

Susan used to study Ecology at college.

Our partners used to go to the European Union summit.

2. USED TO can also be used to describe phenomena and events that were relevant in the past (occurred in the past) but no longer occur in the present.

My cousins used to live in Melitopol.

Ann used to be thin, but now she is plump.

Jack used to be the best tennis player in our faculty, but now Leo is the best one.

3. Repeated events in the past can also be expressed using the modal verb WOULD.

We would sit and watch the sunrise in the seaside in the mornings.

However, WOULD is only used when the verb denotes a continuous action and is not static (i.e., it cannot be used with verbs such as to hate, to think, etc.).

EXERCISES

 Exercise 1. Complete with used to or would

1. People _____ throw rubbish in the river, but now it is cleaner.
2. My grandparents _____ walk to school through the forest.
3. The factory _____ produce a lot of smoke, but it was closed.
4. Children _____ play outside all day instead of watching TV.
5. The river bank _____ be full of fish.
6. Local people _____ recycle only paper, not plastic.
7. Farmers _____ burn waste, but now they compost it.
8. The town _____ have many green parks, but now there are fewer.
9. Every summer my family _____ plant trees in the yard.
10. The air _____ be much fresher before more cars arrived.

 Exercise 2. Transform the sentences using used to or would

Example: People often polluted the lake in the past. → People used to pollute the lake.

1. The forest was full of birds.
2. My parents often told us to protect nature.
3. The village had a clean spring.
4. Every spring we planted flowers.

5. Cars were smaller and less harmful to the environment.
6. People often wasted water.
7. The sea was cleaner.
8. My grandmother always collected rainwater.
9. The park had more benches and trees.
10. Our teacher often spoke about recycling.



Exercise 3. Fill in the blanks with used to or would

1. People _____ believe that the earth's resources are endless.
2. My uncle _____ tell me stories about animals that are now rare.
3. The government _____ ignore ecological problems.
4. We _____ swim in the river without fear of pollution.
5. My grandfather _____ say that winters were colder.
6. Factories _____ pollute the air much more.
7. Children _____ play with natural materials instead of plastic toys.
8. People _____ eat local food instead of imported goods.
9. Farmers _____ grow crops without chemical fertilizers.
10. I _____ spend hours watching birds in the garden.



Exercise 4. Correct the mistakes

1. People use to recycle less in the past.
2. My grandma would lived near the forest.
3. There would be a river here, but it dried up.
4. I am used to walk to school through the park.
5. We would to pick apples every autumn.
6. People didn't used to care about recycling.
7. My uncle would has a farm near the village.
8. Children use to spend more time in nature.

9. Our town would have more green spaces before new buildings.
10. I used to going camping every summer.



Exercise 5. Open-ended writing (answer with full sentences)

1. What did your grandparents use to do for the environment?
2. How did people in your town use to spend summers?
3. What things would you often do in nature as a child?
4. What food did your family use to eat more often?
5. What habits did people use to have that harmed the environment?
6. What animals or plants were common in your area but are rare now?
7. What activities would your parents encourage you to do outdoors?
8. Did your school use to organize ecological projects?
9. What would you often see in your town that has now disappeared?
10. What used to be different about the climate when your grandparents were young?



Exercise 6: Complete the sentences with used to or would.

1. People ____ (throw) all their waste into rivers before recycling became common.
2. When I was a child, my family ____ (reuse) glass bottles instead of buying plastic ones.
3. The villagers ____ (collect) rainwater for daily use long before modern systems were built.
4. In the past, factories ____ (release) smoke into the air without any control.
5. My grandparents ____ (grow) vegetables in their garden instead of buying them.
6. When we were students, we ____ (organize) clean-up campaigns in our schoolyard.
7. Decades ago, people ____ (not worry) much about climate change.

8. Every summer, we ____ (spend) weeks cleaning the beach from plastic waste.
9. Fishermen ____ (catch) more fish in the river, but now it is polluted.
10. People ____ (believe) that natural resources were endless.



Exercise 7: Rewrite the sentences using used to or would.

1. My teacher always explained the importance of protecting forests when I was at school.
2. There was a recycling center in our town, but it closed down.
3. Every year, our group organized a campaign for Earth Day.
4. When we were kids, we often picked up trash in the park after school.
5. Many years ago, the air was much cleaner in the city.
6. My grandfather often told me stories about nature and wildlife.
7. Decades ago, people burned coal to heat their houses.
8. Every summer, we visited the forest to plant new trees.
9. There were more birds in the wetlands before the area was destroyed.
10. My neighbors often gave food scraps to animals instead of throwing them away.



Exercise 8: Choose the correct answer.

1. People _____ throw plastic bottles in the river, but now they recycle them.
 - a) use to
 - b) used to
 - c) would to
 - d) would have
2. When I was a child, we _____ go camping in the forest every summer.
 - a) used to
 - b) would
 - c) use to
 - d) was used to

3. There _____ be many trees here before the park was destroyed.

- a) would
- b) used to
- c) use to
- d) would has

4. My grandmother _____ collect rainwater for the garden.

- a) used to
- b) would
- c) use to
- d) was used to

5. In the past, factories _____ pollute the air more than today.

- a) use to
- b) would to
- c) used to
- d) be used to

6. When we were children, we _____ swim in the clean river after school.

- a) use to
- b) would
- c) would has
- d) used to

7. People _____ think climate change was not real.

- a) use to
- b) used to
- c) would to
- d) would have

8. My father _____ tell me stories about animals that lived in the forest.

- a) used to
- b) would
- c) use to
- d) was used to

9. This area _____ be a forest, but now it is a parking lot.

- a) used to
- b) use to
- c) would to
- d) would has

10. When I was young, we _____ walk in the mountains every weekend.

- a) would
- b) use to
- c) would has
- d) be used to

ANOTHER/ OTHER(S)/ THE OTHER/ THE OTHERS/ THE SECOND

ANOTHER is used before countable nouns in the singular, meaning 'one more' or 'other'.

When we see a horror film on TV, we immediately choose another channel.

OTHER is used before nouns in the PLURAL when we are talking about people or things that are added to those we already know.

The show is usually interesting and funny but other programmes on this channel are boring at this time.

OTHERS is used INSTEAD OF A NOUN when we talk about people or things that are added to those we already know.

Some news shock people but others try to be informative.

THE OTHER is used before countable nouns in the SINGULAR and PLURAL, meaning 'not this one' or 'the one that remains.' Note that we use THE OTHER when we have no more than two things.

Chicago Bulls played very well but the other team wasn't bad either.

THE SECOND is used to mean 'second' or 'other' when there are more than two things, or when we are listing them in order.

Our groupmate's score was 120 points, the second player scored 108, and the third got below 107 points.

THE OTHERS is used INSTEAD OF A PLURAL NOUN, meaning 'not this one' or 'the one that remains'.

Two of his classmates survived the bus crash but the others died.

A/AN & ONE(S)

We use A/AN when talking about any (“indefinite”) object.

Helen prepared a present for her friend.

ONE(S) is used:

When we want to emphasise quantity:

Helen prepared ONE present for her friend.

With the words night /morning /day /time, when you tell the stories:

One evening, Tom wanted....

We use one, one of (one of) when we want to single out one from a large number, quite often in contrast to the other(s) – others:

One sportsman was short, but the others were rather tall in the basketball team.

To avoid repetition, we use:

one – for singular

ones – for plural

Her old car is much more reliable than her new one. (= her new car)

We are not interested in board games, except for card ones. (= card games)

Without changing the meaning, you can use either a/an or one(s) when talking about time, distance, weight, and price.

Kelvin will come to the office in an/one hour.

The cinema is a/one kilometer away.

Mr Gregory weighs a/one hundred kilos.

BOTH/NEITHER/ALL/NONE/EACH/EVERY

BOTH/NEITHER

We use these words when we talk about two people or two things.

Both is used in a positive sense; only with PLURAL.

Both partners/ Both of the partners/ Both of them are talented partners.

Neither is used in a negative sense; with singular and plural forms.

Neither device is cheap. Neither of the devices / Neither of them are cheap.

ALL/NONE

We use these words when we talk about three or more people, or three or more things.

All is used in a positive sense; only with PLURAL.

All of the groupmates/ All of them wanted to be in the project team.

None is used in a negative sense; with singular and plural forms.

None of these salads are tasty.

WE NEVER USE THE AUXILIARY VERB WITH THE PARTICLE *NOT* AFTER NEITHER AND NONE.

Neither device isn't cheap. / None of these salads aren't tasty.

EACH/EVERY

Each	Every
<u>Two or more things</u> We each received a bonus.	<u>Three or more things</u> The exams are every four months.
<u>Each separately</u> Each student had his own idea.	<u>One as all (a group of people)</u> Every student agreed. (=All students)
<u>It can be used with <i>of</i></u> We gave a present to the each of them.	<u>To describe how often</u> She spends her holiday in her mansion every year.

EXERCISES

Exercise 1: Fill in with ANOTHER / OTHER(S) / THE OTHER / THE OTHERS / THE SECOND

1. Some countries are investing in solar energy, while _____ rely mainly on fossil fuels.
2. One solution is recycling; _____ is reducing plastic use.
3. Many species are endangered, but _____ have already disappeared.
4. One of the rivers is polluted, but _____ is still clean.
5. Wind farms are efficient, but _____ renewable sources are also important.
6. The first project focused on waste separation; _____ project studied air pollution.
7. Some forests are protected; _____ are cut down illegally.
8. One country signed the agreement, but _____ refused.
9. We should plant one tree today and _____ tomorrow.
10. Two parks were cleaned last week; _____ two will be cleaned next month.

Exercise 2: Fill in with A / AN / ONE(S)


1. Planting _____ tree can make a difference in the local ecosystem.
2. We need _____ solution to the problem of plastic waste.
3. There is _____ endangered bird living in this reserve.
4. Could you give me _____ example of sustainable energy?
5. I bought two reusable bottles; this one is mine, that _____ is yours.
6. Recycling is only _____ step toward protecting nature.
7. We need to take _____ action to protect our oceans.
8. A forest is like _____ big lung for the planet.
9. Do you have _____ idea how to reduce water consumption?
10. If every person planted just _____ tree, the Earth would become greener.

 Exercise 3: Fill in with BOTH / NEITHER / ALL / NONE

1. We have two options: reduce plastic or reuse it; _____ are good.
2. The two rivers are polluted, so _____ is safe to drink.
3. _____ countries signed the agreement on climate change.
4. There were five recycling bins, but _____ of them were used.
5. We visited two national parks, but we didn't see animals in _____ of them.
6. _____ of the students in our class took part in the clean-up campaign.
7. _____ of the beaches here are clean; people always leave trash.
8. We looked at two solutions, but _____ worked.
9. _____ forests in the region were destroyed by fire.
10. The government offered two proposals, but _____ was accepted.

 Exercise 4: Fill in with EACH / EVERY

1. _____ student should recycle at school.
2. We must check _____ container before throwing it away.
3. The teacher gave _____ group a task about ecology.
4. _____ country must take part in the fight against climate change.
5. We visited three parks, and in _____ we found some litter.
6. _____ volunteer received a badge for helping.
7. The conference is held _____ year to discuss environmental issues.
8. _____ child has the right to breathe clean air.
9. _____ of the bins was painted green.
10. The scientists studied _____ sample carefully.

 Exercise 5: Fill in the gaps.

1. One factory closed, but _____ is still working.
2. I need _____ reusable bag; this one is broken.
3. _____ people think ecology is important, but not everyone acts.
4. We visited two forests, and _____ was beautiful.
5. One solution is renewable energy; _____ is reducing emissions.
6. The first result was not clear, but _____ was better.

7. _____ country should contribute to fighting global warming.
8. There were five projects, but _____ of them were successful.
9. We must take _____ step to protect endangered species.
10. Some students recycle, but _____ simply ignore the rules.

Exercise 6: Choose the correct answer.

1. If one forest is destroyed, we should protect _____.
 - a) another
 - b) the other
 - c) others
 - d) the others
2. This is my reusable cup. That _____ is my friend's.
 - a) a
 - b) one
 - c) an
 - d) every
3. Two rivers were polluted, but _____ was cleaned last year.
 - a) the second
 - b) another
 - c) each
 - d) none
4. Plastic bottles and bags are harmful. _____ should be banned.
 - a) Neither
 - b) Both
 - c) Every
 - d) The other

5. We visited many national parks, but ____ of them were free of plastic.

- a) each
- b) none
- c) the other
- d) another

6. I planted one tree yesterday and I'll plant ____ tomorrow.

- a) others
- b) another
- c) the second
- d) the others

7. The two governments had solutions, but ____ worked.

- a) both
- b) neither
- c) every
- d) all

8. ____ person can make a difference in protecting nature.

- a) Each
- b) Both
- c) Neither
- d) None

9. Out of five recycling bins, only two were full. ____ were empty.

- a) The second
- b) Another
- c) The others
- d) Neither

RELATIVE CLAUSES

Relative clause – subordinate clause.

It is formed using a relative pronoun (who / which / that), which is indicated at the beginning of the subordinate clause after the specified word.

There are two types of relative clauses:

- Defining relative clauses (clarify the meaning of the specified word):
- Non-defining relative clauses (provide additional information about the specified word)

Defining relative clauses

WHO / THAT is used when talking about people:

The engineer who / that works in this department is the best in this plant. –
(“*Who / that works in this office*” talks about what kind of manager.)

WHICH / THAT is used when talking about things, concepts:

The guide tour which / that they prefer is around the city centre.

Subject and Object Relative Clauses

WHO / WHICH / THAT may be absent if they are in the role of the object

The office worker (who) they hired two days ago has already fired.

If the relative pronoun is the subject:

The office worker who applied last Monday has already been employed.

Non-defining Relative Clauses

are used to provide additional information about a person or object:

Mr Morrison, who is his worst teacher, is going to retire.


In this type of sentence, the relative clause is separated by commas.

‘That’ is not used as an alternative to WHO and WHICH.

A relative clause can refer not only to a single word, but also to an entire main clause. Such a relative clause can only be added using the conjunction WHICH and only after the main clause:

Mary never admits her boyfriend mistakes, which are extremely annoying.


EXERCISES

 Exercise 1: Fill in the blanks with the correct relative pronoun (who, which, that, where, whose)

1. The scientist ____ discovered the new species works at the university.
2. This is the forest ____ many endangered animals live.
3. The book ____ explains climate change is very popular.
4. The city ____ we visited has excellent recycling programs.
5. The organization ____ mission is to protect the environment is growing.
6. The river ____ runs through the valley is heavily polluted.
7. The volunteers ____ cleaned the beach received awards.
8. The factory ____ produces a lot of waste was fined.
9. The park ____ we had a picnic is next to the lake.
10. The policy ____ the government introduced focuses on renewable energy.

 Exercise 2: Combine the sentences using relative clauses

1. The activists spoke at the conference. The activists want to stop deforestation.
2. We visited a recycling center. The recycling center uses solar energy.
3. The report was published last month. The report highlights air pollution problems.
4. The scientist works in the lab. The scientist studies water quality.
5. The school has a garden. The garden is used for teaching sustainability.

 Exercise 3: Choose the correct relative pronoun to complete each sentence

1. The legislation ____ aims to reduce plastic waste was passed recently.

- a) who
- b) which
- c) where

2. The students ____ organized the cleanup are very motivated.

- a) which
- b) that
- c) whose

3. The town ____ we live in has strict environmental rules.

- a) who
- b) which
- c) where

4. The company ____ products are eco-friendly won an award.

- a) whose
- b) which
- c) that

5. The mountain ____ is covered with trees is part of the national park.

- a) who
- b) which
- c) where

 Exercise 4: Rewrite the sentences by adding a relative clause

1. The recycling program is effective. It started last year.

2. The environmentalist gave a speech. She inspired many people.


3. The waste management system is complicated. It needs improvement.

4. The park was closed. It is a habitat for rare birds.

5. The documentary is informative. It explains global warming.

 Exercise 5: Correct the mistakes in the relative clauses

1. The forest which is near the city, they planted new trees.
2. The people who helps with the clean-up are volunteers.
3. The river, that flows through town, is clean.
4. The policy, which their government introduced, is strict.
5. The students, which attend the course, learn about ecology.

 Exercise 6: Complete the sentences with relative pronouns (who, which, that, where, whose).

1. The scientist ____ wrote this article studies climate change in Africa.
2. Recycling is a process ____ helps reduce waste.
3. The organization ____ supports wildlife protection is opening a new office in our city.
4. The river ____ flows through our town is heavily polluted.
5. The students ____ collected plastic bottles won the eco-project award.
6. The country ____ forests are disappearing quickly needs urgent action.
7. Solar panels are devices ____ convert sunlight into energy.
8. The park ____ we usually go for clean-up campaigns is very popular.
9. The activists ____ protested against deforestation were arrested.
10. Composting is a method ____ turns food waste into natural fertilizer.

 Exercise 7: Join the sentences using relative clauses.

1. I visited a village. The villagers recycle almost everything.
2. The book is very useful. It explains the concept of the circular economy.
3. The person is a famous ecologist. He spoke at the conference yesterday.
4. We cleaned a beach. Many tourists usually leave their rubbish there.
5. The factory produces solar panels. It is located in Germany.
6. I saw a documentary. It showed how climate change affects polar bears.
7. The organization helps endangered animals. Its main office is in Nairobi.
8. The forest was destroyed by fire. It used to be full of rare plants.

9. The teacher gave us an article. It was about green energy sources.
10. I met some students. They are working on a project about sustainable farming.

Exercise 8: Choose the correct answer.

1. The company ____ makes solar panels is expanding rapidly.
- a) which
 - b) who
 - c) where
2. This is the park ____ we planted new trees.
- a) which
 - b) where
 - c) who
3. The activist ____ spoke at the event is well-known.
- a) which
 - b) where
 - c) who
4. The river ____ water is clean supports many fish species.
- a) whose
 - b) which
 - c) who
5. The law ____ was passed last month improves air quality.
- a) which
 - b) who
 - c) where
6. The volunteers ____ helped clean the beach received certificates.
- a) that
 - b) where
 - c) which

7. The school ____ focuses on environmental education won a prize.

a) which

b) who

c) where

8. The scientist ____ research is important attended the conference.

a) who

b) whose

c) which

9. The forest ____ we camped is protected by law.

a) who

b) which

c) where

10. The project ____ aims to reduce waste has great support.




a) which

b) who

c) where

FUTURE SIMPLE TENSE

Future Simple Tense indicates that a certain action will take place in the future.

		
I will run	I won't run	Will I run?
You will run	You won't run	Will you run?
He / She / It will run	He / she / it won't run	Will he / she / it run?
We will run	We won't run	Will we run?
You will run	You won't run	Will you run?
They will run	They won't run	Will they run?

WE USE FUTURE SIMPLE TENSE

1. When we make a spontaneous decision:

I'm tired. I'll go home and have a rest on the sofa.

2. When we assume that something will happen in the future, but it is only in our imagination:

Our cars will fly in the streets in 2050.

Donna will be the famous actress one day.

3. When we promise something:

We will help you with it, we promise.


4. When we warn or frighten someone:

If you don't do it, I will not let you go out.

5. With the words: probably, perhaps, I promise, I hope, I believe, I think, I expect, I'm sure, I'm afraid, I bet

I hope my guests will be on time in the restaurant.

EXERCISES


 Exercise 1: Fill in the blanks with the correct form of the verb in Future Simple.

1. Tomorrow, our team _____ (plant) 50 new trees in the park.
2. I'm sure people _____ (become) more aware of climate change in the future.
3. The city council _____ (ban) single-use plastics next year.
4. We _____ (not/use) plastic bottles at the conference.
5. _____ you _____ (support) the campaign for clean energy?
6. If we don't act now, temperatures _____ (keep) rising.
7. The government _____ (launch) a new recycling program soon.
8. Our school _____ (organize) a climate awareness week in May.
9. I think more people _____ (cycle) to work in the future.
10. They _____ (not/ignore) the environmental risks anymore.

 Exercise 2: Choose the correct form of the verb.

1. I think more companies (will use / uses / used) sustainable packaging.
2. We (will help / help / are helping) clean the beach this weekend.
3. My friends (not join / won't join / don't join) the clean-up tomorrow.
4. (Will / Do / Did) you support the new forest protection law?
5. Experts believe the sea level (will rise / is rising / rises) by 20 cm.
6. The eco-club (will host / hosts / hosted) a film screening about pollution.
7. I hope people (will reduce / reduces / reduced) their plastic use.
8. They (will discuss / discussed / are discussing) the air pollution issue next week.

9. We (will not forget / did not forget / don't forget) to recycle the batteries.
10. (Does / Will / Is) your class plant trees on Earth Day?

 Exercise 3: Rewrite the sentences using Future Simple.

1. We recycle more. (next year)
→ We will recycle more next year.
2. She starts an eco-club. (soon)
3. They use public transport. (every day)
4. Our city adopts green policies. (next decade)
5. I speak about climate change. (at the meeting)

 Exercise 4: Make questions using Future Simple.

1. (you / participate / in the clean-up?)
→ Will you participate in the clean-up?
2. (they / support / our petition?)
3. (the government / take / action?)
4. (we / save / endangered species?)
5. (your group / collect / data on pollution?)
6. (he / volunteer / for the eco-project?)
7. (students / plant / more trees?)
8. (we / reduce / energy consumption?)
9. (she / talk / about sustainability?)
10. (people / change / their habits?)

 Exercise 6: Put the verbs in brackets into the Future Simple.

1. If we plant more trees, we ____ (reduce) air pollution.
2. Scientists ____ (develop) new methods to clean the oceans.
3. The government ____ (ban) plastic bags in the next two years.
4. Our school ____ (organize) a recycling campaign next month.
5. I'm sure students ____ (take) part in the ecological conference.
6. The factory ____ (switch) to renewable energy by 2030.
7. If you recycle more, you ____ (help) protect the environment.
8. People ____ (become) more aware of climate change soon.
9. Volunteers ____ (clean) the park on Saturday morning.
10. The community ____ (create) a new eco-center in our district.

 Exercise 7: Complete the sentences with your own ideas in Future Simple.

1. Tomorrow we ____ (collect)...
2. Next week our teacher ____ (show)...
3. The local eco-group ____ (organize)...
4. If the pollution continues, animals ____ (lose)...
5. In the future, people ____ (use)...
6. When I finish my studies, I ____ (work)...
7. On World Environment Day, our city ____ (hold)...
8. If we stop cutting forests, the planet ____ (recover)...
9. Soon more countries ____ (invest)...
10. My friends and I ____ (start)...

Exercise 8: Choose the correct answer.

1. We _____ a documentary about climate change at school.
a) watched
b) will watch
c) are watching

2. I promise I _____ more environmentally friendly.
- a) will be
 - b) am
 - c) was
3. The school _____ a zero-waste week in April.
- a) hosted
 - b) will host
 - c) hosts
4. People _____ the importance of recycling soon.
- a) realize
 - b) will realize
 - c) are realizing
5. _____ you _____ us clean the riverbank next Saturday?
- a) Do / help
 - b) Are / helping
 - c) Will / help
6. We _____ the pollution report tomorrow.
- a) will submit
 - b) submitted
 - c) are submitting
7. They _____ to use compost in their garden next season.
- a) decide
 - b) decided
 - c) will decide

8. I think green energy _____ the future.

a) will be

b) is

c) was

9. Our group _____ 100 signatures by Friday.

a) collected

b) will collect

c) collects

10. The teacher _____ more about global warming next class.




a) talked

b) will talk

c) talks

BE GOING TO

BE GOING TO is often used in English meaning *to intend, to plan something*.

		
I am going to run	I'm not going to run	Am I going to run?
You are going to run	You aren't going to run	Are you going to run?
He / She / It is going to run	He / she / it isn't going to run	Is he / she / it going to run?
We are going to run	We aren't going to run	Are we going to run?
You are going to run	You aren't going to run	Are you going to run?
They are going to run	They aren't going to run	Are they going to run?

WE USE BE GOING TO


1. Talking about planned events (when somebody is going to do something)

I'm going to learn a new foreign language.

2. When we say that something is about to happen and we can see it happening

Look! That runner is very speedy. He is going to crash into the fence.

EXERCISES

 Exercise 1: Fill in the blanks with the correct form of "going to" + verb.

1. We _____ (plant) more trees in the city next month.
2. She _____ (organize) a clean-up event this weekend.
3. They _____ (reduce) plastic waste in their community.
4. The government _____ (introduce) new environmental laws soon.

5. I _____ (attend) a workshop on renewable energy next Friday.
6. The school _____ (start) a recycling program next semester.
7. He _____ (campaign) for better air quality in the city.
8. We _____ (participate) in Earth Day activities this year.
9. The company _____ (invest) in green technologies.
10. Volunteers _____ (collect) trash along the riverbanks tomorrow.

 Exercise 2: Choose the correct form.


1. They (are going to / will / going) launch a new environmental project next month.
2. She (is going to / going to / will) organize a beach clean-up on Saturday.
3. We (are going to / will / going) plant trees in the park tomorrow morning.
4. The city council (is going to / going to / will) improve public transport to reduce pollution.
5. I (am going to / will / going) join the climate action group next week.
6. He (is going to / will / going) present his research at the seminar next Friday.
7. They (are going to / will / going) raise awareness about plastic pollution.
8. The school (is going to / will / going) teach students about sustainability.
9. We (are going to / will / going) reduce our carbon footprint this year.
10. Volunteers (are going to / will / going) plant flowers in the community garden.

 Exercise 3: Rewrite the sentences using "going to."

1. The city will organize an environmental fair next month.
2. She will lead a workshop on recycling tomorrow.
3. They will reduce energy consumption this year.
4. I will participate in the clean-up event on Saturday.
5. The volunteers will collect data about pollution next week.


 Exercise 4: Make questions with "going to."

1. (you / attend / the climate conference next week?)
→ Are you going to attend the climate conference next week?
2. (they / start / a recycling campaign soon?)
3. (she / organize / a workshop on renewable energy?)
4. (we / plant / trees in the park tomorrow?)
5. (he / join / the environmental group next month?)
6. (you / participate / in Earth Day activities?)
7. (they / reduce / plastic use in their office?)
8. (the school / introduce / sustainability lessons?)
9. (we / campaign / for cleaner air in the city?)
10. (she / present / her research at the seminar?)

 Exercise 5: Put the verbs in brackets into the correct form of be going to.

1. Our class ____ (start) a recycling project next week.
2. The scientists ____ (study) the effects of plastic waste in rivers.
3. People ____ (use) more renewable energy in the future.
4. Volunteers ____ (plant) 200 trees in the park tomorrow.
5. The government ____ (introduce) new rules about waste sorting.
6. I ____ (write) a report about climate change for the school magazine.
7. The company ____ (build) a new wind farm near the coast.
8. We ____ (clean) the beach during the summer holidays.

9. Many families ____ (install) solar panels on their houses.
10. The students ____ (prepare) posters for the Earth Day exhibition.

 Exercise 6: Complete the sentences with your own ideas using be going to.

1. Tomorrow my friends and I ____ (collect)...
2. Our teacher ____ (explain)...
3. The local eco-group ____ (organize)...
4. People in my city ____ (take part)...
5. My family ____ (reduce)...
6. The mayor ____ (open)...
7. Soon we ____ (visit)...
8. The company ____ (stop)...
9. I ____ (join)...
10. Students from different schools ____ (share)...

Exercise 7: Choose the correct answer.

1. The city _____ a new park next year.
 - a) is going to build
 - b) will build
 - c) builds
2. Volunteers _____ clean the riverbanks tomorrow.
 - a) are going to
 - b) will
 - c) are
3. She _____ organize a workshop on waste management.
 - a) is going to
 - b) will
 - c) organizing
4. (Are / Do / Will) you going to attend the climate march?

5. The school _____ introduce a new recycling program soon.
- a) is going to
 - b) will
 - c) are
6. We _____ plant more trees in our community.
- a) are going to
 - b) will
 - c) is
7. They _____ reduce carbon emissions by next year.
- a) are going to
 - b) will
 - c) do
8. He _____ join the environmental club this semester.
- a) is going to
 - b) will
 - c) going
9. (Are / Do / Will) they going to participate in the clean-up event?
10. The company _____ invest in renewable energy.
- a) is going to
 - b) will
 - c) are

ARTICLE

In English, there are two types of articles: the indefinite articles – a, an and the definite article - the.

THE INDEFINITE ARTICLE (A, AN)

The indefinite article A, AN is used only before countable nouns in the singular and has no plural form.

This is a laboratory.

These are laboratories.

WE USE THE INDEFINITE ARTICLE

1. When we talk about something for the first time:

It is a dictionary.

2. When we talk about any subject:

I'd like to buy a book.

3. In some expressions:

A lot of, a plenty of, a great deal of

A few, a little

As a matter of fact

For a short (long) time

In a loud (low) voice

It is a pity

To be in a hurry

To have a good time

To have a cold

To go for a walk

THE DEFINITE ARTICLE (THE)

The definite article THE is used before countable and uncountable nouns in the singular and plural.

WE USE THE DEFINITE ARTICLE

1. When we talk about something for the second time and continue the story:

It is a dictionary.

The dictionary is Ukrainian-English. The dictionary is not new.

2. Before objects and items that are unique by nature:

The Earth The sun The moon

The Acropolis

3. Before the names of oceans, seas, bays, straits, rivers:

The Indian ocean

The Thames

The Black sea

4. Before the names of mountain ranges, deserts, groups of islands:

The Carpathian Mountains

The Nevada

The Polynesian Islands

5. Before the names of countries, if their names contain the words STATES, KINGDOM, REPUBLIC:

The United Kingdom

The United States

The Czech Republic

6. Before the names of musical instruments:

The violin, the cello

7. Before the names of hotels, theatres, cinemas, ships, organisations, newspapers and museums:

The Marriot Hotel

The Rex Cinema

The Queen Mary (ship)

The European Union

The Wall Street Journal

The British Museum

8. Before nationalities and surnames, if we are referring to all members of the family as a whole:

The Ukrainians

The Browns

9. Before titles, ranks and positions, if the first name and/or surname are not mentioned:

The Prime Minister

The King

10. When we form the superlative degree of adjectives:

The nicest, the most interesting

11. With ordinal numbers:

The first, the second, the third

12. In some expressions:

In the morning

In the afternoon

In the evening

In the country

On the one (other) hand

On the whole

The day before yesterday

The day after tomorrow

The other day

To tell the truth

NO ARTICLE BEFORE NOUNS

1. With plural nouns, if we are talking about something in general:

Tigers primarily live in Asia.

2. Before first names and surnames:

Lily Berton is his flatmate.

3. Before the names of cities, countries, streets, squares and parks:

Ottawa is the capital city of Canada.

France is a European country.

John lives at 10 Kingston Street.

Grand Canyon is the unique national park in the USA.

4. Before the names of individual islands, lakes, mountain peaks:

The San Juan Islands is an archipelago in the United States.

Lake Victoria, the largest lake in Africa, has a surface area of 69,484 square kilometers.

Mount Everest (8,848.86 m) in the Himalayas is the highest.

5. Before the names of continents:

Asia is the largest continent, both in land area and population.

6. Before the names of sports games and sports:

Badminton is my favourite sport.

7. Before titles, ranks and positions, if the first name and/or surname are mentioned:

President Trump has been elected as chair of the Kennedy Center.

Queen Victoria ruled for the longest period in the English history, for 64 years.

8. With demonstrative and possessive pronouns:

This article has an amazing conclusion. My dog is a very peaceful animal.

9. With language names, if the word LANGUAGE is not specified:

They study Spanish and English at university.

BUT: The Chinese language is very difficult.

10. In some expressions:

At night

At breakfast

At lunch

At dinner (supper)

At home

At school

At work

At first sight

At table

By post

By chance

By mistake

By heart

In time

In fact

On board

On sale

Day after day


To go to bed

By tram (train, bus, plane ...)

From morning to (till) night

From time to time

EXERCISES

 Exercise 1: Fill in the blanks with a, an, or the


1. There is ___ tree in the park that provides shade.
2. She adopted ___ endangered species of bird last year.
3. ___ Earth's atmosphere is getting warmer due to pollution.
4. We need to plant ___ new forest to help fight climate change.
5. Have you seen ___ eagle flying over the mountains?
6. He found ___ interesting article about recycling in the newspaper.
7. ___ pollution in this city has decreased since last year.
8. I want to buy ___ eco-friendly product for my home.
9. They visited ___ Amazon rainforest last summer.
10. ___ sun provides energy for all life on Earth.

 Exercise 2: Choose the correct article (a, an, the, or no article)

1. ___ ocean covers more than 70% of the Earth's surface.
a) A b) An c) The d) No article
2. I saw ___ owl last night near the forest.
a) a b) an c) the d) no article
3. Recycling is ___ important way to protect the environment.
a) a b) an c) the d) no article
4. They live near ___ river that flows through the city.
a) a b) an c) the d) no article
5. We should use ___ energy sources like solar and wind power.
a) a b) an c) the d) no article

 Exercise 3: Correct the mistakes in the use of articles


1. She saw a eagle flying above the trees.
2. We planted an tree in our garden last week.
3. The air pollution is problem in many cities.
4. I bought the reusable bag for shopping.
5. They live near a Amazon rainforest.

 Exercise 4: Fill in the blanks with the correct article or leave blank if no article is needed

1. ___ recycling helps reduce waste.
2. They found ___ owl in the forest.
3. ___ sun sets later in summer.
4. We need to protect ___ environment.
5. She is reading ___ interesting book about climate change.

 Exercise 5: Complete the sentences with a, an, the, or no article

1. I am planning to visit ___ national park next month.
2. There is ___ endangered species living near the river.
3. ___ climate change is a serious global issue.
4. We use ___ solar panels to save energy.
5. She wants to adopt ___ animal from the shelter.

 Exercise 6: Fill in the blanks with a, an, the or leave it blank (zero article).

1. Planting ___ tree is one of the easiest ways to fight climate change.
2. ___ Amazon rainforest is called "the lungs of the planet."
3. Recycling saves energy and reduces the need for ___ new raw materials.
4. Many people try to live without using ___ plastic bags.
5. ___ United Nations often discusses global environmental issues.
6. A lot of animals are in danger because of ___ pollution in rivers.

7. Installing ____ solar panel can help reduce household energy bills.
8. We visited ____ national park in Kenya last year.
9. Overfishing is destroying ____ balance of marine ecosystems.
10. ____ clean air is essential for human health.



Exercise 7: Choose the correct article (a, an, the, or zero article).

1. We need to take action to protect ____ environment.
2. Climate change is ____ urgent problem for the whole world.
3. She is writing ____ article about recycling for the school newspaper.
4. They are building ____ eco-friendly house near the lake.
5. ____ Pacific Ocean covers more area than all the land combined.
6. My friend works as ____ environmental scientist.
7. We must not cut down too many trees in ____ forests.
8. Installing energy-efficient light bulbs is ____ simple way to save energy.
9. The students organized ____ event on Earth Day.
10. Saving water is one of ____ most important tasks for the future.






Exercise 8: Choose the correct answer.

1. ____ forest near my house is home to many animals.
a) a b) an c) the d) no article
2. I saw ____ elephant at the wildlife sanctuary.
a) a b) an c) the d) no article
3. ____ water in this river is very clean.
a) a b) an c) the d) no article
4. We should avoid using ____ plastic bags.
a) a b) an c) the d) no article
5. He read ____ article about renewable energy yesterday.
a) a b) an c) the d) no article
6. ____ sun rises in the east.
a) a b) an c) the d) no article

7. She bought ____ organic apple from the market.
a) a b) an c) the d) no article
8. We are planting ____ tree in our backyard.
a) a b) an c) the d) no article
9. ____ pollution is a threat to wildlife.
a) a b) an c) the d) no article
10. They are building ____ new recycling center downtown.
a) a b) an c) the d) no article

PRESENT PERFECT TENSE

Present Perfect Tense is used to indicate actions that have been completed by the present moment, or those that were completed within the present period of time.

		
I have started (gone)	I haven't started (gone)	Have I started (gone)?
You have started (gone)	You haven't started (gone)	Have you started (gone)?
He / She / It has started (gone)	He / she / it hasn't started (gone)	Has he / she / it started (gone)?
We have started (gone)	We haven't started (gone)	Have we started (gone)?
You have started (gone)	You haven't started (gone)	Have you started (gone)?
They have started (gone)	They haven't started (gone)	Have they started (gone)?

WE USE THE PRESENT PERFECT TENSE

1. To indicate actions that have just been completed (or not completed):

- Have they finished their climate change project? – Yes, they have/ No, they haven't.

The taxi has just arrived.

Paul hasn't written the report yet.

2. To indicate actions that took place in the past, but whose results we see now:

Den can't enter the flat. He's lost his key.

3. To describe actions that began in the past and are still ongoing:

We have known them for years / since our childhood / since 2010.

Kathrin has written about a dozen funny stories.

4. To indicate actions that took place during a period of time that has not yet passed (with expressions such as 'this morning' / 'afternoon' / 'week' – 'today in the morning' / 'afternoon' / 'this week':

Has the food delivery person come this evening?

My brother hasn't phoned this morning.

WORD MARKERS

In affirmative sentences:

- for – We have known her for 5 years.
- Since – Susan has been ill since Sunday.
- already – Molly has already had lunch.
- just – The tutor has just spoken to them.
- recently – She has recently published her first article.
- so far – We've written tests so far.

In interrogative sentences:

- ever – Have you ever met anyone famous in IT?
- how long – How long has he been a vet?
- yet – Has Tony gone to his office yet?
- lately – Have they seen any good cartoons lately?

In negative sentences:


- for – Martin hasn't talked to her for weeks.
- since – You haven't seen Barbara since last weekend.
- yet – The manager hasn't replied to his letter yet.
- never – Adam has never travelled by train.

HAVE GONE TO OR HAVE BEEN TO

HAVE GONE TO – he went away and hasn't returned yet – He has gone to Lviv.

HAVE BEEN TO – he visited (already returned) – Nathan has been to Paris twice.

EXERCISES

 Exercise 1: Fill in the blanks with the correct form of the verb in Present Perfect.

1. The local authority _____ (ban) plastic bags in all city stores.
2. Many world scientists _____ (warn) people about negative climate change.
3. Our university _____ (launch) a campaign to save water.
4. It's so pity but we _____ (not reduce) our energy use enough yet.
5. Some European countries _____ (sign) new agreements on carbon emissions.
6. Teacher said: " Greenpeace _____ (protect) marine wildlife for decades".
7. You know we _____ (never see) a shark in the wildlife before.
8. Grandfather Theodor _____ (leave) the lights on in most rooms again!
9. The faculty of Agronomy and Ecology _____ (plant) over 500 trees this April.
10. My cousin _____ (not recycle) any of his electronics.

 Exercise 2: Choose the correct answer. (Present Perfect)


1. The specialists _____ already _____ the lake cleanup.
a) have / finished b) has / finished c) have / finish
2. Ian _____ a lot of climate strikes recently.
a) attend b) has attended c) have attended
3. The workers _____ never _____ this type of eco-friendly material.
a) have / used b) has / used c) have / use
4. My groupmate _____ just _____ an article on renewable energy.
a) have / read b) has / read c) have / reading
5. My grandparents _____ to the recycling center once a month.

- a) has gone b) have gone c) gone
6. That chemical factory _____ not _____ any waste nowadays.
a) has / produced b) have / produced c) has / produce
7. My mother and sister _____ always _____ organic food in our family.
a) have / bought b) has / bought c) have / buying
8. What _____ they _____ with the old batteries?
a) have / done b) has / done c) have / do
9. Lily _____ already _____ her report about deforestation.
a) has / b) have / c) has /
completed completed complete
10. The university _____ not _____ enough recycling bins.
a) have / b) has / provided c) have /
provided provide

 Exercise 3: Rewrite the sentences using Present Perfect.

Example: We cleaned the beach. → We have cleaned the beach.


1. The students saw this video on air pollution.
2. The green club participants planted 100 trees this week.
3. Kelvin didn't use any plastic bottles this month.
4. My friends joined the environmental club.
5. Denis wrote a report on climate change.
6. His enterprise banned single-use cutlery.
7. They forgot to sort their trash.
8. The Caritas volunteers finished their work.
9. We learned a lot about sustainability in the agriculture.
10. The scientists didn't calculate their carbon footprint.

 Exercise 4: Complete the sentences using just, already, yet, ever, or never.

1. Have you _____ visited a power station?
2. She has _____ started the cleanup in the hotel rooms.
3. He hasn't checked the air quality index _____ in the assembly hall.
4. Martin has _____ volunteered for an environmental group.
5. The chemical factory has _____ reduced its emissions.
6. We haven't launched the new recycling program _____.
7. Have you _____ learnt of this green tech startup?
8. They have _____ seen such a polluted park zone.
9. The students have _____ completed the sustainability checklist.
10. Have the specialists submitted their eco-projects _____?

 Exercise 5: Mixed Fill-in-the-Blank Practice

1. Jerry _____ (already/start) a blog about zero-waste living.
2. The workers _____ (not/receive) the new eco-bin delivery yet.
3. _____ they ever _____ (visit) a nature reserve in this country?
4. We _____ (just/read) an article about air pollution in rural areas.
5. The city authority _____ (not/fix) the water leak in the centre of the city yet.
6. You _____ (learn) so much about green energy since last term.
7. The workers _____ (already/install) solar panels on the roof.
8. It _____ (not/rain) a lot lately due to climate shifts.
9. The environmentalists _____ (hold) two protests this week.
10. _____ he _____ (do) his part for the planet today?

 Exercise 6: Complete the sentences with the correct form of the verbs in Present Perfect.

1. Scientists ____ (discover) several new plant species in the Amazon rainforest this year.
2. People ____ (become) more aware of the importance of recycling in recent years.
3. The government ____ (introduce) new regulations to reduce air pollution.
4. Many organizations ____ (launch) campaigns to save endangered animals.
5. We ____ (plant) hundreds of trees in the local park since spring.
6. Researchers ____ (study) the effects of plastic waste on marine life.
7. Environmentalists ____ (protest) against illegal logging in the national forest.
8. Companies ____ (develop) alternative energy sources like solar and wind power.
9. Citizens ____ (report) several cases of water contamination in the river.
10. Climate activists ____ (organize) events worldwide to raise awareness about global warming.

Exercise 7: Make sentences in Present Perfect using the words in parentheses.




1. Many people ____ (stop / using) plastic straws.
2. We ____ (learn) about the importance of biodiversity.
3. Governments ____ (take) action to reduce greenhouse gas emissions.
4. She ____ (write) an article about renewable energy.
5. They ____ (install) solar panels on the roof of the school.
6. Scientists ____ (observe) changes in Arctic ice levels.
7. Communities ____ (clean) beaches and rivers this month.
8. He ____ (participate) in several tree-planting events.
9. The city ____ (introduce) a new recycling program.
10. Researchers ____ (publish) reports about climate change solutions.

Exercise 6: Choose the correct answer.

1. My colleague _____ to a climate conference before.
a) have gone b) has gone c) have went
2. The engineers _____ our electricity usage.
a) _____ have b) has monitored c) have monitor
monitored
3. The four year students _____ their eco-projects already.
a) submitted b) has submitted c) _____ have
submitted
4. Paul _____ a bike to his college all week.
a) rides b) has ridden c) have ridden
5. My groupmate _____ a report on water conservation yet.
a) haven't written b) hasn't written c) didn't write
6. The water quality _____ improved recently.
a) have b) has c) is
7. We _____ you our green idea yet!
a) don't tell b) didn't tell c) haven't told
8. Eva _____ never seen an electric car charging station.
a) have b) has c) had
9. The volunteers _____ just finished a clean-up of the local park.
a) have b) has c) had
10. _____ your students ever _____ a sustainability workshop?
a) Did / attend b) Have / attended c) Has /
attended

PAST PERFECT TENSE

The Past Perfect Tense is used to show an action that happened before another action in the past.

		
I had started (gone)	I hadn't started (gone)	Had I started (gone)?
You had started (gone)	You hadn't started (gone)	Had you started (gone)?
He / She / It had started (gone)	He / she / it hadn't started (gone)	Had he / she / it started (gone)?
We had started (gone)	We hadn't started (gone)	Had we started (gone)?
You had started (gone)	You hadn't started (gone)	Had you started (gone)?
They had started (gone)	They hadn't started (gone)	Had they started (gone)?

WE USE THE PAST PERFECT TENSE

1. When we talk about an action that happened before another past action.

By the time she arrived, we had finished cleaning.


2. To show the reason or explanation for an event in the past.

He was tired because he had worked all day.

3. In sentences with after, before, when, by the time, until and similar expressions.

After they had left, we went home.

EXERCISES

 Exercise 1: Fill in the blanks with the correct form of the Past Perfect.

Use the structure: had + past participle.

1. By the time they arrived at the park square, the volunteers _____ (collect) most of the waste.
2. Mr Harrison _____ (not finish) the report before the meeting started.
3. The workers _____ (install) solar panels on the roof before winter came.
4. I _____ (never/hear) about zero-waste living until I joined the workshop.
5. The city _____ (already/ban) plastic bags when I moved there.
6. We _____ (not plant) any trees before the rain started.
7. After the partner company _____ (release) the new eco-friendly product, sales increased.
8. The stream was polluted because the chemical plant _____ (dump) waste for years.
9. My colleagues _____ (attend) several climate conferences before organizing their own.
10. Irene felt proud because she _____ (complete) her presentation on clean water.

 Exercise 2: Complete the sentences using Past Simple or Past Perfect.

1. When they got to the forest, the cleanup crew _____ (leave).
2. The local authority _____ (not understand) how serious the issue was until they _____ (see) the real photos.
3. The activists _____ (distribute) all the eco-flyers before the event _____ (finish).


4. The scientists _____ (collect) data before they _____ (write) their article in the Scopus journal.
5. Sharron _____ (feel) confident because she _____ (prepare) thoroughly.
6. Mathew _____ (join) the environmental group after he _____ (watch) a documentary.
7. I _____ (not realize) the water was unsafe until I _____ (get) sick.
8. My team _____ (have) a meeting after we _____ (analyze) the results.
9. The river bank _____ (look) much cleaner after they _____ (clean) it.
10. The politician _____ (announce) new policies before the protest _____ (take place).

 Exercise 3: Rewrite the second sentence using the Past Perfect.

1. They cleaned the park square. Then the inspector arrived.
→ When the inspector arrived, they had cleaned the park square.

Now do the rest:

2. They banned plastic bags in the local stores. Then the local authority voted the law.
3. His brother watched the documentary. Then he changed his lifestyle.
4. William collected all the data. Then he gave his presentation in class.
5. They finished the campaign. Then they celebrated.
6. The climate change report was published. Then colleagues started discussing.
7. The local park was protected. Then the animals returned.
8. The neighbours didn't sort the waste. Then the recycling truck arrived.
9. Zack passed the exam. Then he realized he hadn't studied.
10. We saw the damage. Then we understood the problem.


 Exercise 4: Correct the mistakes. One verb is incorrect in each sentence.

1. Linda had wrote an article about water pollution in her region.
2. The activists had saw the beach before it was cleaned.
3. The workers had build solar panels on the building roof.
4. Joseph had never drink rainwater before.
5. He had not took part in any green projects.
6. The deputates had pass a law before the protest begin.
7. The students had knew the air was polluted after some experiments.
8. Barbara had finish her presentation before the delegation arrived.
9. The team of engineers has collected data for weeks.
10. Karen had forgot to bring her reusable bag to the event.

 Exercise 5: Make questions in Past Perfect.

Example: (he / finish / the climate change report?) → Had he finished the climate change report?

1. (the grandparents / recycle / all their bottles?)
2. (Miss Jane/ read / the environmental law?)
3. (they / attend / the eco-party before?)
4. (you / collect / enough signatures for that law?)
5. (the activists / visit / the green energy plant?)
6. (the schoolchildren / organize / a cleanup the area around school before?)
7. (Lily / prepare / the materials for the workshop?)
8. (the company / reduce / carbon emissions?)
9. (they / plant / more than 50 trees before Earth Day?)
10. (Edward / forget / to bring gloves for the experiment?)

 Exercise 6: Complete the sentences with the correct form of the verbs in Past Perfect.

1. By the time the conference started, scientists ____ (already / submit) their research papers on climate change.
2. The city ____ (already / implement) new waste management policies before the public protest began.
3. By the time the volunteers arrived, the community ____ (already / plant) hundreds of trees.
4. Researchers ____ (already / study) the effects of air pollution before the new legislation was passed.
5. The organization ____ (already / launch) the campaign when the media covered it.
6. By last year, environmentalists ____ (already / organize) several beach-cleaning events.
7. The government ____ (already / ban) single-use plastics before the international summit.
8. By the time the documentary was released, scientists ____ (already / discover) new coral species.
9. Communities ____ (already / report) water contamination before the inspection team arrived.
10. By the time the new eco-park opened, volunteers ____ (already / restore) the damaged area.

 Exercise 7: Rewrite the sentences using Past Perfect.

1. They planted trees. Volunteers arrived later. → By the time volunteers arrived, they ____ (plant) trees.
2. The research team published a report. The students read it later. → The students ____ (read) the report after the research team ____ (publish) it.
3. The city banned harmful pesticides. Farmers complained later. → Farmers complained after the city ____ (ban) harmful pesticides.
4. The scientists collected samples. The lab analysis started later. → The lab analysis ____ (start) after the scientists ____ (collect) samples.

5. The environmental group organized a clean-up. The media reported it later. → The media ____ (report) it after the environmental group ____ (organize) a clean-up.
6. The river was polluted. The government took action later. → The government ____ (take) action after the river ____ (be) polluted.
7. Researchers studied the forest. They wrote their conclusions later. → They ____ (write) their conclusions after they ____ (study) the forest.
8. Citizens recycled waste. The town council praised them later. → The town council ____ (praise) citizens after they ____ (recycle) waste.
9. The NGO conducted workshops. The community participated later. → The community ____ (participate) after the NGO ____ (conduct) workshops.
10. The farm switched to organic methods. The company adapted later. → The company ____ (adapt) after the farm ____ (switch) to organic methods.

Exercise 6: Choose the correct answer.

1. Our groupmates _____ already _____ the petition when the tutor arrived.
 a) had / signed b) signed c) have signed
2. The activists _____ a climate protest before the new law was introduced.
 a) had organized b) organized c) were organizing
3. By the time we arrived, the wind _____ serious damage in the village.
 a) had caused b) had caused c) caused
4. Emily _____ never _____ a compost bin before last season.
 a) had / used b) used c) was using
5. You were late. The film _____.
 a) had already finished b) finished already c) was finishing
6. After the workers _____ the trees and flowers, the square looked better.
 a) planted b) had planted c) were planting

7. Steven didn't realize that the stream _____.
- a) had dried up b) dried up c) has dried up
8. Amanda _____ to the workshop because she had missed the train.
- a) didn't go b) hadn't gone c) haven't gone
9. The volunteers _____ many events before they got media attention.
- a) held b) had held c) were holding
10. The partners _____ the forest until the guide explained its importance.
- a) didn't b) hadn't c) weren't
appreciate appreciated appreciating

IMPERATIVE

The imperative (imperative verb form) in English is usually used to express a command, encouragement to act, prohibition, request, invitation, advice, instructions, etc.

The imperative is formed using the basic form of the verb without the particle to. The person to whom the action is addressed is not specified.

Open the textbooks, please!

The negative form is formed using DON'T and the basic form of the verb without the particle TO:

Don't open the copybooks!

Don't sit here!

WE USE THE IMPERATIVE

1. To express a command or encouragement to act.

Do this task immediately!

Listen to me!

2. To express prohibition.

Don't take my bag!

3. To give instructions.

Write the letter K before the letter N in the verb – KNOW, but don't read the sound K.

4. For invitations.

Come to our party on Friday at 7 p.m.

5. To express a request.

Show us the direction, please!

6. To express an advice.

Take your umbrella! It is raining outside.

EXERCISES

 Exercise 1: Fill in the gaps with the correct imperative form.

1. ____ (recycle) plastic bottles instead of throwing them away.
2. ____ (not waste) so much water when you brush your teeth.
3. ____ (turn off) the lights when you leave the room.
4. ____ (help) your friends learn more about ecology.
5. ____ (not cut) down trees in the park!

 Exercise 2: Rewrite the sentences using imperatives.

Example: You should plant more trees. → Plant more trees.

1. People should reduce air pollution.
2. We mustn't throw litter on the beach.
3. You should save paper at school.
4. Students should use public transport.
5. We mustn't forget to protect endangered animals.

 Exercise 3: Match the halves to make eco-friendly commands.

A. Save


B. Use

C. Don't drop

D. Protect

E. Turn off

1. endangered species
2. the lights when not needed
3. water whenever you can
4. your rubbish in the street
5. recycling bins

 Exercise 4: Make negative imperatives.

1. (waste / food) → _____
2. (use / plastic bags) → _____
3. (kill / wild animals) → _____
4. (pollute / rivers) → _____
5. (forget / to recycle) → _____

 Exercise 5: Write imperatives for an "Eco Poster".

Example: Keep the city clean!

1. _____ (energy)
2. _____ (trees)
3. _____ (rubbish)
4. _____ (air)
5. _____ (planet)

Exercise 6: Choose the correct answer.

1. Don't ____ water when you wash the dishes.
 - a) save
 - b) waste
 - c) keep
 - d) plant
2. ____ the bus instead of driving your car.
 - a) Take
 - b) Put
 - c) Go
 - d) Build
3. ____ the lights when you leave the classroom.
 - a) Save

- b) Reuse
- c) Turn off
- d) Protect

4. ____ litter into the sea!

- a) Drop
- b) Don't drop
- c) Recycle
- d) Put

5. ____ trees in your garden.

- a) Throw
- b) Plant
- c) Turn
- d) Keep

6. ____ paper and glass in the special containers.

- a) Waste
- b) Recycle
- c) Drop
- d) Cut

7. Don't ____ animals in the forest.

- a) feed
- b) kill
- c) help
- d) protect

8. ____ electricity by turning off your computer.

- a) Spend
- b) Save

c) Lose

d) Protect

9. ____ your rubbish in the bin!

a) Put

b) Cut

c) Plant

d) Take

10. Don't ____ the air with smoke.

a) pollute

b) recycle

c) save




d) turn

MODAL VERBS

MODAL VERBS form a separate group of verbs in English. They are not used independently, only together with the infinitives of main verbs, and do not express an action or state.

Modal verbs are used to indicate possibility, necessity, probability, prohibition, permission, etc. of the main action.

THE MODAL VERB 'CAN'

		
I / You / He / She / It / We / You / They can run.	I / You / He / She / It / We / You / They can't (cannot) run.	Can I / you / he / she / it / we / you / they run?

WE USE THE MODAL VERB 'CAN'

1. To express a person's physical and mental abilities:

The tutor can help you to do the task.

He can close this door.

2. To express a prohibition, request or permission:

She cannot eat out she is having lunch at home with her mother.

Can we go to the canteen with you?




You can watch films after you learn the poem by heart.

3. To express surprise, distrust, doubt.

How can they say such words!

This woman cannot be 60!




THE MODAL VERB 'COULD'

		
I / You / He / She / It / We / You / They could run.	I / You / He / She / It / We / You / They couldn't (could not) run.	Could I / you / he / she / it / we / you / they run?

WE USE THE MODAL VERB 'COULD'

1. To express a suggestion, to propose something (there is no present tense form, only past and future tenses):
They could spend their wedding anniversary abroad.
2. To indicate what one was able or capable of doing in the past:
We could speak German when we were at the primary school.
3. To express a polite request:
Could you pass me the spoon, please?




THE MODAL VERB 'MAY'

		
I / You / He / She / It / We / You / They may run.	I / You / He / She / It / We / You / They may not run.	May I / you / he / she / it / we / you / they run?

WE USE THE MODAL VERB 'MAY'

1. To express permission for something:
They may leave the classroom.
2. To express a request or ask for permission:
May I come in your room?




THE MODAL VERB 'MUST'

		
I / You / He / She / It / We / You / They must run.	I / You / He / She / It / We / You / They mustn't (must not) run.	Must I / you / he / she/ it / we / you / they run?

WE USE THE MODAL VERB 'MUST'

- To express duty, obligation (own decision):
They must listen to the teacher at the lecture.
Harry must pay her back soon.
- The negative form MUSTN'T can be translated as 'prohibited':
They mustn't touch that snake it is poisonous.
- The modal verb MUST is only used in the present tense! In the future and past tenses, the modal verb HAVE TO is used instead.

THE MODAL VERB 'HAVE TO'

		
I / You / We / You / They have to run.	I / You / We / You /They don't have to run.	Do I / you / we / you / they have to run?
He / She / It has to run.	He / She / It doesn't have to run.	Does he / she / it have to run?

WE USE THE MODAL VERB 'HAVE TO'

- To express an obligation, a need (required by the situation or circumstances):
We have to visit our grandparents at the weekend.

2. No need to do anything:




Ursula doesn't have to move there this week.

3. The modal verb HAVE TO has past and future tense forms:

Ian had to sign it yesterday.

The nurses will have to work tomorrow.

THE MODAL VERB 'NEED'




		
I / You / He / She / It / We / You / They need run.	I / You / He / She / It / We / You / They needn't (need not) run.	Need I / you / he / she / it / we / you / they run?

WE USE THE MODAL VERB 'NEED'

To express the presence or absence of a need for something:

She needn't go to the market today. We've got some food in the fridge.

THE MODAL VERB 'SHOULD'

		
I / You / He / She / It / We / You / They should run.	I / You / He / She / It / We / You / They shouldn't (should not) run.	Should I / you / he / she / it / we / you / they run?

WE USE THE MODAL VERB 'SHOULD'

1. To give a piece of advice or provide with instructions:

We should save more money for buying a new car.

2. When expressing conclusions based on information that has just become available:

The Donalds arrived a half an hour ago so they should be at home soon.

We use modal verbs MAY, MIGHT, COULD + V1 to describe an event or situation that may happen in the future (probable).

Franky might go to the gym tonight.

In negative sentences, we use MAY NOT, MIGHT NOT, we do not use COULD NOT.

Sarah might not swim in the cold river tomorrow morning.

We use WILL for predictions. If we are not sure about our predictions, we use – 'I think...' or 'probably'.

I think it will be informative lecture tomorrow.

In sentences, we can use the following pattern to determine which verb to use:

100%	90%	70%	40%	10%	0%
will	will probably	could, may, might	may not, might not	probably won't	won't

EXERCISES

 Exercise 1: Fill in the blanks with the correct modal verb

1. We ___ recycle more to protect the environment.
2. People ___ bring their own bags to reduce plastic waste.
3. You ___ leave the lights on when you're not in the room.
4. Factories ___ reduce emissions to improve air quality.
5. We ___ plant trees to help combat climate change.
6. You ___ use public transport if you want to lower your carbon footprint.
7. The government ___ invest more in renewable energy.
8. It ___ rain later, so take an umbrella just in case.

9. Animals ____ migrate if their habitat becomes unsuitable.
10. You ____ not pollute rivers or lakes.



Exercise 2: Rewrite the sentences using a suitable modal verb

1. It is necessary to protect endangered species.
2. It is possible that the weather will get worse.
3. It is allowed to use reusable containers in the cafeteria.
4. It is a good idea to save water during a drought.
5. It is uncertain whether the project will succeed.
6. It is forbidden to dump waste in the forest.
7. It is your duty to care for the planet.
8. It might be difficult to reduce plastic use immediately.
9. It is probable that sea levels will rise.
10. It is recommended to plant native species.




Exercise 3: Choose the correct modal verb (can, must, should, might, could)

1. We ____ reduce energy consumption to fight climate change.
2. You ____ recycle paper and plastic separately.
3. Factories ____ be fined if they break environmental laws.
4. It ____ snow tomorrow according to the weather forecast.
5. You ____ take shorter showers to save water.
6. Trees ____ absorb carbon dioxide from the air.
7. We ____ plant more trees in urban areas.
8. You ____ not throw trash into the ocean.
9. People ____ use electric cars instead of petrol ones.
10. It ____ be dangerous to swim near polluted water.

 Exercise 4: Fill in the blanks with the correct modal verb and verb form

1. If you want to protect wildlife, you ____ (should / protect) their habitats.
2. We ____ (must / reduce) our use of plastic immediately.
3. You ____ (might / see) endangered animals in the national park.
4. They ____ (could / start) a campaign to clean the rivers.
5. We ____ (shall / plant) trees next spring.
6. People ____ (can / help) by volunteering for environmental projects.
7. The government ____ (must / enforce) stricter pollution laws.
8. You ____ (should / recycle) glass bottles instead of throwing them away.
9. Animals ____ (might / migrate) to cooler areas if the climate warms.
10. You ____ (could / reduce) energy use by turning off unnecessary lights.

 Exercise 5: Correct the mistakes with modal verbs in the sentences below

1. You musts recycle paper and plastic.
2. We can't to pollute rivers and lakes.
3. They shoulds plant more trees in the city.
4. You may not to throw trash in the forest.
5. The factory must reduce emissions immediately.
6. People might helps reduce plastic waste.
7. We could to save energy by using LEDs.
8. You shoulds take care of endangered species.
9. It must be important to protect nature.
10. You can't to use plastic bags anymore.

Exercise 6: Fill in the blanks with the correct modal verb (can, could, may, might, must, should, have to, etc.)

1. People ____ reduce their use of plastic to protect the oceans.
2. You ____ bring your own bag to the grocery store to avoid single-use plastics.
3. Factories ____ be fined if they pollute the river.
4. We ____ plant more trees to combat climate change.
5. Wildlife habitats ____ be restored by local communities.
6. Governments ____ implement stricter laws to reduce air pollution.
7. You ____ recycle paper and plastic separately at home.
8. The endangered species ____ disappear if humans do not act.
9. Citizens ____ participate in environmental awareness campaigns.
10. Renewable energy sources ____ help reduce carbon emissions.

Exercise 7: Choose the correct modal verb for each sentence

1. People ____ (should / might / can) limit water usage during droughts.
2. The company ____ (must / may / could) reduce its emissions to meet the new regulations.
3. You ____ (might / must / should) turn off lights when leaving a room to save energy.
4. Renewable energy ____ (can / must / might) replace fossil fuels in the future.
5. Citizens ____ (have to / could / may) report illegal logging activities.
6. We ____ (should / can / might) organize a community clean-up this weekend.
7. Air pollution ____ (may / must / can) cause serious health problems if not controlled.
8. Local governments ____ (must / might / could) support recycling programs in schools.
9. People ____ (can / should / might) use public transport instead of private cars to reduce emissions.
10. The rainforest ____ (might / must / can) be protected through international cooperation.

Exercise 8: Choose the correct answer.

1. You ____ use reusable bags to help the environment.

- a) must
- b) can
- c) might
- d) should

2. Factories ____ lower their emissions by law.

- a) can
- b) should
- c) must
- d) might

3. It ____ rain later, so take a raincoat.

- a) must
- b) could
- c) should
- d) can

4. We ____ plant more trees to reduce carbon dioxide.

- a) might
- b) must
- c) could
- d) should

5. People ____ smoke in the park — it's forbidden.

- a) may
- b) must
- c) mustn't
- d) can

6. You ____ bring your own water bottle to reduce plastic use.
- a) must
 - b) can
 - c) might
 - d) would
7. The government ____ invest in clean energy projects.
- a) should
 - b) can
 - c) must
 - d) could
8. Animals ____ move to new habitats if their current one is destroyed.
- a) must
 - b) can
 - c) might
 - d) should
9. You ____ not leave lights on when you leave a room.
- a) should
 - b) must
 - c) can
 - d) might
10. We ____ protect endangered species to maintain biodiversity.
- a) must
 - b) might
 - c) can
 - d) would

GERUND AND INFINITIVE

The Gerund is a form of an English verb with the suffix -ing, which combines the features of a noun and a verb and conveys the meaning of a certain process.

For example:

paying

running

wearing

An article is never used before a gerund, and it does not have a plural form.

WE USE GERUND

1. In the role of the subject:

Jogging is very good for your body and health.

2. After prepositions:

After watching film, please take your seats.

3. After certain verbs as a complement:

Have you finished eating your dessert?

There are some verbs followed by the GERUND:

Admit	Feel like doing	Recall (= remember)
Adore	Finish	Resent
Avoid	Imagine	Resist
Can not stand	Involve	Risk
Carry on (= continue)	Keep (on) (= continue)	Suggest
Consider		Tolerate
Delay	Look forward to	
Deny	Mention	
Discuss	Mind (= object to)	
Enjoy	Miss	
Escape	Postpone	
Fancy	Practise	
	Quit	

The Infinitive in English is an impersonal form of an English verb that denotes only an action, without indicating either person or number. The infinitive answers the questions: what to do? what should be done?

to lead

to stand

to win

WE USE THE INFINITIVE

1. After adjectives:

It is so amazing to see them in the rock concert!

2. To explain the purpose or intention:

William wants to get a better job in Madrid.

3. After certain verbs:

They decided to learn the other foreign language at university.

There are some verbs followed by the INFINITIVE:

Afford

Agree

Aim

Arrange

Attempt

Ask

Decide

Deserve

Expect

Fail

Guarantee

Hope

Learn

Manage

Need

Offer

Plan

Prepare

Pretend

Promise

Refuse

Seem

Tend (= be likely)

Threaten

Turn out

Volunteer

Undertake

Want

The verbs after which both the gerund and the infinitive can be used.
The meaning of the statement will not change at all!

Begin

Continue

Hate

Intend

Like

Love

Prefer

Start

The meaning of the phrase will change depending on which impersonal form of the verb you choose.

Forget

Forget + to do — to neglect to do (something not done):

I forgot to do the shopping in the butcher's.

Forget + doing — don't remember something (something has been done, but there are no memories of it):

Kate forgot taking pictures of the city symbol.

Go on

Go on + to do — to continue by starting a new action:

The lecturer turned on the projector and went on to explain the scheme on the white board.

Go on + doing — to continue the action that has been started:

Granny asked them to be quiet, but they went on shouting at each other anyway.

Need

Need + to do — to have a need to do something.

Daniel needs to iron his shirt.

Need + doing — to require something (for things and objects).

Your old fen needs fixing.

Mean

Mean + to do — to intend, to plan:

I think the colleague meant to interrupt our conversation.

Mean + doing — to signify:

You have won the prize! It means taking the first place.

Regret

Regret + to do — to be sorry about something (that is happening or has not yet been done).

Kelvin regret to inform her that they fell down with her.

Regret + doing — to be sorry about something (done in the past).

Mario regret telling his sister's secret to everybody.

Remember

Remember + to do — do not forget to do (something that has not been done yet).

Remember to close the front door when they leave.

Remember + doing — to keep something in mind, not to forget (what has already been done).

Teddy will always remember his graduation party.

Stop

Stop + to do — to pause to do something:

Margaret stopped to cross the street.

Stop + doing — to discontinue doing something:

His brother stopped playing football two months ago when he broke his foot.

Try

Try + to do — to attempt, strive, make an effort:

I've tried to stop Sally, but she ran away.

Try + doing — to test, to carry on an experiment.

If you want to lose your weight, try doing some exercises, jogging or running too.

INFINITIVE WITHOUT TO

The INFINITIVE without the particle TO is used in the following cases:

1. With modal verbs, except HAVE TO, BE TO, OUGHT TO:

Kate could sing the songs loudly.

May we take our seats?

2. With the verbs LET and MAKE:

Let me know the truth first.

They can not make her sister believes them.

3. Please note that in passive constructions, the INFINITIVE is used with the particle TO.


Gregory was made to do that report.

4. With modal expressions WOULD RATHER, HAD BETTER:

I'd rather visit your grandparents.

You'd better make breakfast for us.

EXERCISES


 Exercise 1: Fill in the blanks with the correct form (infinitive or gerund)

1. She enjoys ____ (to recycle / recycling) old paper.
2. We decided ____ (to plant / planting) more trees this year.
3. They are interested in ____ (to protect / protecting) endangered species.
4. It's important ____ (to reduce / reducing) plastic waste.
5. He promised ____ (to clean / cleaning) the beach after the event.
6. I'm looking forward to ____ (to visit / visiting) the national park.
7. They stopped ____ (to use / using) harmful pesticides.
8. She forgot ____ (to turn off / turning off) the water tap.

9. The government plans ____ (to ban / banning) single-use plastics.
10. He admitted ____ (to harm / harming) the environment unintentionally.


 Exercise 2: Choose the correct option

1. We want ____ (to improve / improving) air quality in the city.
2. I can't imagine ____ (to live / living) without clean water.
3. The team hopes ____ (to find / finding) new solutions for pollution.
4. She avoided ____ (to throw / throwing) garbage in the park.
5. It's difficult ____ (to change / changing) people's habits quickly.
6. He agreed ____ (to participate / participating) in the recycling program.
7. We enjoy ____ (to hike / hiking) in nature reserves.
8. They need ____ (to finish / finishing) the environmental report by Monday.
9. I don't mind ____ (to work / working) outside in the forest.
10. The organization refused ____ (to accept / accepting) donations from polluters.


 Exercise 3: Complete the sentences with the correct form (infinitive or gerund)

1. ____ (Recycle) is one of the easiest ways to protect the environment.
2. The children love ____ (to learn) about wildlife conservation.
3. He forgot ____ (to switch off) the lights before leaving.
4. They postponed ____ (to plant) the trees due to bad weather.
5. We expect ____ (to see) positive changes soon.
6. I suggest ____ (to use) reusable bags instead of plastic ones.
7. She practiced ____ (to sort) waste properly.
8. They promised ____ (to reduce) energy consumption.
9. Avoid ____ (to waste) water whenever possible.

10. He started ____ (to volunteer) at the local animal shelter.

 Exercise 4: Correct the mistakes in these sentences (infinitive or gerund)

1. I enjoy to help protect the environment.
2. They decided planting more trees this year.
3. She suggested to reduce plastic use.
4. He promised cleaning the park after the event.
5. We can't afford losing more wildlife habitats.
6. She admitted to pollute the river.
7. They postponed to start the clean-up project.
8. He forgot turning off the air conditioner.
9. I hope seeing you at the climate march.
10. We discussed to organize a community recycling day.

 Exercise 5: Choose the correct infinitive or gerund to complete the sentence

1. I'm planning ____ (to attend / attending) the environmental conference next month.
2. They stopped ____ (to litter / littering) in public parks.
3. She decided ____ (to become / becoming) an environmental scientist.
4. We enjoy ____ (to hike / hiking) in national parks.
5. He promised ____ (to reduce / reducing) his carbon footprint.
6. The teacher encouraged ____ (to participate / participating) in the clean-up event.
7. They avoided ____ (to use / using) plastic straws.
8. We need ____ (to protect / protecting) endangered species.
9. She admitted ____ (to forget / forgetting) to recycle yesterday.
10. He refused ____ (to sign / signing) the environmental petition.

- a) learn b) learning
3. They suggested ____ a community garden.
- a) creating b) to create
4. He forgot ____ the windows before the storm.
- a) closing b) to close
5. We need ____ our carbon emissions.
- a) to reduce b) reducing
6. She admitted ____ to recycle regularly.
- a) forgetting b) to forget
7. I enjoy ____ documentaries about the environment.
- a) watch b) watching
8. The city plans ____ more bike lanes.
- a) building b) to build
9. They avoided ____ plastic bags.
- a) using b) to use
10. He promised ____ the park clean.
- a) to keep b) keeping

PASSIVE VOICE

The Passive Voice is used when the performer of the action is obvious or irrelevant, or when the action or its result is more interesting than the performer.

This library was built in 1893.

Passive tense forms are formed using the verb TO BE in the appropriate tense and the PAST PARTICIPLE of the main verb.

Present Simple Passive

is/am/are + V3

Every second is spent on defending our native land from enemies.

Past Simple Passive

was/were + V3

These trees were planted nearly 50 years ago.

Future Simple Passive

will be + V3

The boxes with flowers will be sent tomorrow.

Present Continuous Passive

am/is/are + being + V3

The bike is being repaired now.

Past Continuous Passive

was/were + being + V3

The test was being done that morning.

Present Perfect Passive

has/have + been + V3

This article has already been written.

Past Perfect Passive

had + been + V3

Those magazines had been sold before we came.

Future Perfect Passive

will + have + been + V3

The bottles will have been thrown by tomorrow evening.

The Perfect Continuous (Present, Past and Future) and Future Continuous tenses do not have a passive form. If it is necessary to use one of these tenses, they are replaced by a verb in the active form or another tense.

Modal verbs

Modal verb + be + V3

This IT project should be done today.

BY and WITH in PASSIVE VOICE


1. The preposition BY is used before the subject (the performer of the action):

That experiment was made by our lecturer.

2. The preposition WITH is used to indicate tools, materials, ingredients, etc.

The pancakes are made with flour, milk, oil and eggs or without them.


EXERCISES

 Exercise 1: Fill in the blanks with the correct passive form of the verb in Present Simple or Past Simple

1. Plastic waste ____ (collect) every week in our city.
2. The forest ____ (protect) by volunteers last year.
3. The air pollution ____ (measure) regularly by scientists.
4. Many animals ____ (save) from extinction in recent decades.
5. Renewable energy sources ____ (use) more now than before.
6. The waste ____ (dispose) properly by the factory last month.
7. The park ____ (clean) every Sunday by residents.
8. New trees ____ (plant) in the neighborhood last spring.
9. The water quality ____ (test) by experts yesterday.
10. Dangerous chemicals ____ (ban) in several countries.

 Exercise 2: Rewrite the sentences in the passive voice (Present Simple or Past Simple)


1. People recycle paper in many cities.
2. Scientists discovered a new endangered species last year.
3. The government bans single-use plastics.
4. Volunteers clean the beach every weekend.
5. Factories produce a lot of waste.

 Exercise 3: Fill in the blanks with the correct passive form of the verb in Present Continuous or Past Continuous

1. The river ____ (pollute) by chemicals while the inspection was happening.
2. New environmental laws ____ (discuss) in parliament right now.
3. Many trees ____ (cut down) when the activists arrived.
4. The water ____ (clean) by volunteers at the moment.
5. The endangered species ____ (protect) during the last project.

 Exercise 4: Complete the sentences with the correct passive form in Present Perfect or Past Perfect

1. Several endangered animals ____ (save) by conservationists this year.
2. The harmful waste ____ (dispose) before the inspection began.
3. Many factories ____ (modernize) to reduce emissions recently.
4. The recycling program ____ (introduce) in the city last decade.
5. The forest area ____ (restore) by volunteers before the wildfire.

 Exercise 5: Choose the correct passive form to complete the sentence (mixed tenses)

1. The environment ____ (protect) by many organizations for years.

- a) is protecting
- b) has been protected
- c) was protecting
- d) protected

2. Plastic bottles ____ (recycle) every day.

- a) are recycled
- b) were recycled
- c) is recycled
- d) recycled

3. The water ____ (test) right now.

- a) is being tested
- b) was tested
- c) has tested
- d) tests

4. The laws ____ (change) recently to improve sustainability.

- a) are changed
- b) have been changed
- c) were changed
- d) changes

5. The waste ____ (dispose) properly yesterday.

- a) is disposed
- b) was disposed
- c) were disposed
- d) disposes

 Exercise 6: Change the sentences to the passive voice

1. People plant millions of trees every year.
2. Scientists study the effects of climate change on wildlife.
3. They have banned single-use plastics in many countries.
4. The government will introduce new recycling regulations next month.
5. Volunteers clean the beaches every weekend.
6. Farmers use organic methods to grow vegetables.
7. Experts are monitoring air pollution in urban areas.
8. Researchers have discovered a new species in the rainforest.
9. Companies are reducing greenhouse gas emissions worldwide.
10. They will build new wind farms along the coast.

 Exercise 7: Fill in the blanks with the correct passive form

1. Many forests ____ (destroy) by illegal logging every year.
2. Renewable energy sources ____ (promote) to reduce carbon emissions.
3. Several animal species ____ (protect) by international agreements.
4. Water samples ____ (take) from rivers to check for pollution.
5. The oil spill ____ (contain) by emergency teams last week.
6. Solar panels ____ (install) on the roofs of public buildings.
7. Plastic waste ____ (collect) and recycled in specialized plants.
8. Environmental laws ____ (enforce) strictly in this country.
9. The wildlife sanctuary ____ (visit) by thousands of tourists every year.
10. Climate change issues ____ (discuss) at the United Nations summit.

Exercise 8: Choose the correct answer.

1. The forest ____ by volunteers every year.
a) is protected
b) protects
c) protected
d) was protecting

2. The water ____ by scientists last week.
- a) is tested
 - b) tested
 - c) was tested
 - d) testing
3. New environmental policies ____ at the moment.
- a) is being discussed
 - b) are being discussed
 - c) were discussed
 - d) has discussed
4. The plastic waste ____ properly in this city since 2010.
- a) has been recycled
 - b) is recycled
 - c) was recycled
 - d) recycled
5. The beaches ____ by volunteers yesterday.
- a) clean
 - b) cleaned
 - c) were cleaned
 - d) are cleaned
6. Many endangered species ____ during the last decade.
- a) saved
 - b) was saved
 - c) have been saved
 - d) is saved

7. The air quality ____ continuously monitored.
- a) is
 - b) are
 - c) is being
 - d) are being
8. The hazardous waste ____ safely disposed of last month.
- a) was
 - b) were
 - c) is
 - d) are
9. New solar panels ____ currently installed in the city.
- a) is being
 - b) are being
 - c) was
 - d) were
10. The pollution levels ____ by experts every day.
- a) is measured
 - b) are measured
 - c) was measured
 - d) were measured

REPORTED SPEECH

REPORTED SPEECH is a way of conveying someone's words without quoting them verbatim. Unlike DIRECT SPEECH, in reported speech we do not use quotation marks and we change some grammatical forms

DIRECT SPEECH:

Sally said, "I am bored."

REPORTED SPEECH:

She said (that) she was bored.

BASIC CONVERSION RULES

1. Tenses Shift

When the main clause is in the past tense (e.g. SAID, TOLD), the tense in the subordinate clause changes one step back:

DIRECT SPEECH

REPORTED SPEECH

Present Simple → Past Simple

"I run." → He said he ran.

Present Continuous → Past Continuous

"I am jogging." → He said he was jogging.

Present Perfect → Past Perfect

"I have started." → He said he had started.

Past Simple → Past Perfect

"I knew it." → He said he had known it.

Will → Would

"I will buy it." → He said he would buy it.

If the main clause is in the present tense (SAYS, TELLS), the tense does not change.

2. Modifying Pronouns

We change pronouns according to context:

"I am sad." → She said she was sad.

"They will help you." → They said they would help me.

3. Change in circumstances of time and place

DIRECT SPEECH	REPORTED SPEECH
now	then
today	that day
tomorrow	the next day
yesterday	the day before
here	there
this	that
these	those

4. Use of SAID and TOLD

SAID does not require an object:

She said (that) she was bored.

TOLD requires an object:

She told me (that) she was bored.

INTERROGATIVE SENTENCES IN REPORTED SPEECH

General questions (Yes/No Questions)

We use IF or WHETHER:

"Do you like seafood?" → He asked if I liked seafood.

Special questions (Wh-questions)

The question word remains, but the word order becomes affirmative:

"Where does your girl-friend live?" → He asked where my girl-friend lived.

Commands and requests (Imperatives)

"Close your bag." → She told me to close my bag.


EXERCISES

 Exercise 1: Change the direct speech into reported speech

1. She said, "I recycle every day."
2. He told me, "We are planting new trees this weekend."
3. They said, "We don't use plastic straws anymore."
4. The teacher said, "You must reduce waste."
5. She said, "I have already cleaned the beach."
6. He said, "I will join the climate march tomorrow."
7. They said, "We are organizing a clean-up event next week."
8. She told him, "I can't attend the meeting today."
9. The scientist said, "Pollution is a serious problem."
10. He said, "We need to protect endangered animals."

 Exercise 2: Complete the sentences using reported speech


1. She said that she ____ (recycle) every day.
2. He told me that they ____ (plant) new trees that weekend.
3. They said that they ____ (not use) plastic straws anymore.
4. The teacher said that we ____ (must/reduce) waste.
5. She said that she ____ (already/clean) the beach.
6. He said that he ____ (will/join) the climate march the next day.
7. They said that they ____ (organize) a clean-up event next week.
8. She told him that she ____ (can/not attend) the meeting that day.
9. The scientist said that pollution ____ (be) a serious problem.
10. He said that they ____ (need) to protect endangered animals.

 Exercise 3: Rewrite the sentences in reported speech (statements)

1. "We are working on a new environmental project," they said.
2. "I have stopped using plastic bags," she said.
3. "We will reduce water consumption," the company announced.
4. "The climate is changing rapidly," the expert said.
5. "I can't come to the seminar," he said.
6. "We recycled all the paper," they said.
7. "You should save energy," the instructor said.
8. "We are planting more trees this spring," she said.
9. "I am worried about pollution," he said.
10. "The government will support green initiatives," they said.

 Exercise 4: Change the questions into reported speech

1. "Where do you recycle your waste?" she asked.
2. "What are you doing to save water?" he asked.
3. "When will the clean-up event start?" they asked.
4. "Why don't you use reusable bags?" the teacher asked.
5. "How can we reduce pollution?" the student asked.
6. "Have you ever planted a tree?" she asked.
7. "Who is responsible for this project?" he asked.
8. "Did you attend the seminar yesterday?" they asked.
9. "What will you do about climate change?" she asked.
10. "Can you volunteer for the beach clean-up?" he asked.

 Exercise 5: Complete the reported questions

1. She asked me where I ____ (recycle) my waste.
2. He asked what I ____ (do) to save water.
3. They asked when the clean-up event ____ (start).
4. The teacher asked why I ____ (not use) reusable bags.
5. The student asked how we ____ (reduce) pollution.
6. She asked if I ____ (ever/plant) a tree.
7. He asked who ____ (be) responsible for the project.
8. They asked if I ____ (attend) the seminar yesterday.
9. She asked what I ____ (do) about climate change.
10. He asked if I ____ (can/volunteer) for the beach clean-up.

 Exercise 6: Change the direct speech into reported speech

1. "We are planting new trees in the park," said the volunteers.
2. "The air pollution is worse than last year," the scientist explained.
3. "I have recycled all my plastic bottles," said Anna.
4. "The government will introduce new regulations next month," the mayor announced.
5. "People must reduce their energy consumption," the environmentalist warned.
6. "We saw a rare bird in the forest," said the students.
7. "The factory has stopped using harmful chemicals," the manager said.
8. "We are monitoring water quality in the river," the researchers explained.
9. "I can't attend the clean-up event tomorrow," said Mark.
10. "This park was created to protect endangered species," the guide said.

 Exercise 7: Rewrite the sentences in reported speech

1. "We are going to organize a beach clean-up this weekend," said the NGO.
2. "The greenhouse gas emissions have increased this year," said the scientist.
3. "I don't use disposable plastic bags," said Maria.
4. "They will plant new mangrove trees next month," the official said.
5. "The ocean pollution is affecting marine life," the biologist explained.
6. "We have discovered a new species of frog," said the researchers.
7. "Please turn off the lights when you leave," said the teacher.
8. "The forest fire destroyed hundreds of trees," the ranger reported.
9. "I am raising awareness about climate change," said Tom.
10. "The park authorities are protecting the wetland area," the guide said.

Exercise 8: Choose the correct answer.

1. "I recycle every day," she said.
 - a) She said that she recycles every day.
 - b) She said that she recycled every day.
 - c) She said that she recycles every day.
2. "We are planting trees this weekend," they said.
 - a) They said they are planting trees this weekend.
 - b) They said they were planting trees that weekend.
 - c) They said they plant trees this weekend.
3. "You must reduce waste," the teacher said.
 - a) The teacher said you must reduce waste.
 - b) The teacher said that we must reduce waste.
 - c) The teacher said that we had to reduce waste.

4. "I will join the march tomorrow," he said.
- a) He said he will join the march tomorrow.
 - b) He said he would join the march the next day.
 - c) He said he would join the march tomorrow.
5. "Do you recycle regularly?" she asked.
- a) She asked if you recycle regularly.
 - b) She asked if I recycled regularly.
 - c) She asked if I recycle regularly.
6. "Where is the recycling center?" he asked.
- a) He asked where the recycling center was.
 - b) He asked where is the recycling center.
 - c) He asked where the recycling center is.
7. "Have you stopped using plastic bags?" they asked.
- a) They asked if I stopped using plastic bags.
 - b) They asked if I had stopped using plastic bags.
 - c) They asked if I have stopped using plastic bags.
8. "Why don't you use reusable bottles?" the teacher asked.
- a) The teacher asked why don't I use reusable bottles.
 - b) The teacher asked why I don't use reusable bottles.
 - c) The teacher asked why I didn't use reusable bottles.
9. "Can you join the clean-up tomorrow?" he asked.
- a) He asked if I can join the clean-up tomorrow.
 - b) He asked if I could join the clean-up the next day.
 - c) He asked if I could join the clean-up tomorrow.

CONDITIONALS

CONDITIONAL SENTENCES are sentences that express a condition and its possible result.

They usually have two parts:

if-clause – the condition

main clause – the result

ZERO CONDITIONAL

Facts, general truths, laws of nature.

If + Present Simple, Present Simple

If something happens, there is always a result.

If they heat water to 100°C, it boils.

If people don't breathe with the fresh air, they start coughing.

If we mix red and white, we get pink colour.

FIRST CONDITIONAL

The real situation in the future.

If + Present Simple, will + V1

If something happens, there will be the real results.

If it is stormy weather outside, she will stay there.

If Oliver studies well, he will pass his exams successfully.

If your friend helps me to lay the table, I will finish the dinner preparation faster.

SECOND CONDITIONAL

Unreal or imaginary situations in the present or future.

If + Past Simple, would + V1

If something had happened, the outcome would have been different.

For the verb TO BE, WERE is often used in all persons:

"If I were you..." (instead of was)

If I won the prize, I would be proud and happy.

If my brother were faster, he would play football.

If they had more time, they would visit us in this resort complex.

THIRD CONDITIONAL

About past events that did NOT happen.

If + Past Perfect, would have + V3

If something had happened in the past, the outcome would have been different.

If Simon had moved the other place, I wouldn't have changed the flat.

If Ruth had left home late, she would have missed her trolley-bus.

If they had known the bad conditios of that hotel, they wouldn't have stayed there.

Extra material: Inversion (formal style)

Sometimes IF is skipped, and the part with the condition is inverted (formal style):


Had I checked the goods, I would have helped my partners.

(Instead of: *If I had checked*)


Were I you, I would explained it clearly. (Instead of: *If I were you*)

Should it be windy weather, we will cancel the badminton game. (Instead of: *If it is*)

EXERCISES


 Exercise 1: Fill in the blanks with the correct form (Zero Conditional)

1. If you ____ (recycle) plastic, it ____ (reduce) waste.
2. Plants ____ (grow) faster if they ____ (get) enough sunlight.
3. If water ____ (reach) 100 degrees Celsius, it ____ (boil).
4. Trees ____ (absorb) carbon dioxide if they ____ (be) healthy.
5. If the temperature ____ (rise), ice caps ____ (melt).
6. Animals ____ (move) to new areas if their habitat ____ (change).
7. If you ____ (turn off) the lights, you ____ (save) energy.
8. Pollution ____ (increase) if factories ____ (not control) emissions.
9. If soil ____ (lack) nutrients, plants ____ (not grow) well.
10. If you ____ (drop) litter, it ____ (harm) the environment.


 Exercise 2: Fill in the blanks with the correct form (First Conditional)

1. If we ____ (plant) more trees, we ____ (improve) air quality.
2. If the government ____ (reduce) emissions, the environment ____ (benefit).
3. People ____ (use) less plastic if they ____ (know) the impact on oceans.
4. If you ____ (take) the bus, you ____ (reduce) your carbon footprint.
5. If it ____ (rain) tomorrow, the soil ____ (get) enough water.
6. If factories ____ (invest) in clean technology, pollution ____ (decrease).
7. The project ____ (succeed) if volunteers ____ (work) hard.
8. If we ____ (recycle) properly, fewer resources ____ (be) wasted.

9. If the community ____ (join) the clean-up day, the park ____ (look) better.
10. If you ____ (switch) off unused electronics, you ____ (save) electricity.

 Exercise 3: Fill in the blanks with the correct form (Second Conditional)

1. If I ____ (be) an environmental scientist, I ____ (focus) on renewable energy.
2. If people ____ (stop) littering, cities ____ (be) cleaner.
3. If the ocean ____ (not be) polluted, many species ____ (survive).
4. If you ____ (have) a garden, you ____ (grow) your own vegetables.
5. If governments ____ (invest) more in green energy, the planet ____ (benefit).
6. If I ____ (live) near the forest, I ____ (go) hiking every weekend.
7. If the air ____ (be) cleaner, more people ____ (exercise) outside.
8. If we ____ (know) the impact of pollution earlier, we ____ (act) differently.
9. If the energy ____ (come) from wind or solar, it ____ (be) more sustainable.
10. If you ____ (use) public transport, you ____ (reduce) emissions.

 Exercise 4: Fill in the blanks with the correct form (Third Conditional)


1. If we ____ (start) recycling earlier, the environment ____ (be) healthier now.
2. If factories ____ (reduce) pollution last year, the river ____ (not get) contaminated.
3. If I ____ (know) about climate change before, I ____ (make) different choices.

4. If the community ____ (organize) clean-ups last month, the park ____ (look) better.
5. If they ____ (protect) the forest, many animals ____ (not lose) their homes.
6. If the government ____ (invest) in renewable energy five years ago, emissions ____ (be) lower.
7. If we ____ (use) less plastic in the past, oceans ____ (be) cleaner today.
8. If you ____ (turn off) lights yesterday, the energy bill ____ (be) lower.
9. If scientists ____ (develop) green technology earlier, the planet ____ (benefit) more.
10. If the city ____ (plan) better waste management, pollution ____ (decrease).



Exercise 5: Choose the correct conditional type and fill in the blanks (Zero, First, Second, Third)

1. If the sun ____ (shine) tomorrow, we ____ (have) a picnic.
2. If people ____ (recycle) plastic, it ____ (help) reduce pollution.
3. If I ____ (be) you, I ____ (join) the environmental club.
4. If the factory ____ (stop) polluting, the lake ____ (recover).
5. If we ____ (not take) action last year, things ____ (be) worse now.
6. If you ____ (heat) water to 100°C, it ____ (boil).
7. If she ____ (live) near the coast, she ____ (go) surfing every weekend.
8. If they ____ (plant) more trees last spring, the air ____ (be) fresher now.
9. If I ____ (have) a car, I ____ (drive) less to help the environment.
10. If it ____ (rain) tomorrow, the flowers ____ (grow).

 Exercise 6: First Conditional (real possibilities in the future)

Complete the sentences using the correct form of the verbs in parentheses.

1. If people _____ (recycle) more, the amount of waste in landfills will decrease.
2. If the government _____ (invest) in renewable energy, carbon emissions will drop.
3. If we _____ (plant) more trees, urban areas will become greener.
4. If factories _____ (reduce) pollution, rivers and lakes will be cleaner.
5. If you _____ (use) reusable bags, plastic waste will decline.
6. If communities _____ (organize) clean-up events, beaches will stay beautiful.
7. If the company _____ (adopt) sustainable practices, it will save money and resources.
8. If citizens _____ (walk) or _____ (cycle) instead of driving, air quality will improve.
9. If farmers _____ (practice) organic farming, soil health will improve.
10. If schools _____ (teach) students about ecology, people will become more environmentally conscious.

 Exercise 7: Second Conditional (hypothetical situations)

Complete the sentences using the correct form of the verbs in parentheses.

1. If everyone _____ (stop) using single-use plastics, the oceans would be cleaner.
2. If I _____ (live) near a forest, I would help protect the wildlife.
3. If the government _____ (provide) more funding for environmental programs, more species would be saved.
4. If we _____ (switch) to solar energy, we would reduce greenhouse gas emissions.

5. If companies _____ (produce) eco-friendly products, consumers would make greener choices.
6. If more people _____ (understand) climate change, they would change their habits.
7. If the city _____ (plant) more trees, it would be cooler in summer.
8. If we _____ (protect) wetlands, many birds and fish would survive.
9. If you _____ (turn off) the lights when not needed, energy consumption would decrease.
10. If schools _____ (include) environmental education in the curriculum, students would be more responsible towards nature.

Exercise 8: Choose the correct answer.

1. If you ____ the lights, you save electricity.
 - a) turn off
 - b) will turn off
 - c) turned off
 - d) had turned off
2. If we ____ more trees, the air would be cleaner.
 - a) plant
 - b) planted
 - c) will plant
 - d) had planted
3. If it ____ tomorrow, we will cancel the picnic.
 - a) rain
 - b) rained
 - c) will rain
 - d) had rained

4. If the factory ____ emissions last year, the river would not be polluted now.

- a) reduce
- b) reduces
- c) reduced
- d) had reduced

5. If I ____ the chance, I would study environmental science.

- a) have
- b) had
- c) will have
- d) had had

6. If water ____ 100 degrees Celsius, it boils.

- a) reach
- b) reaches
- c) reached
- d) had reached

7. If you ____ the bus, you reduce your carbon footprint.

- a) take
- b) took
- c) will take
- d) had taken

8. If the government ____ more to green energy, the environment would benefit.

- a) invests
- b) invested
- c) will invest
- d) had invested

9. If they ____ earlier, they would have prevented pollution.

a) act

b) acted

c) will act

d) had acted

10. If the community ____ together, they will clean the park.

a) come

b) came

c) will come

d) had come

IRREGULAR VERBS

Infinitive	Past Simple	Past Participle	Переклад
be	was / were	been	бути
beat	beat	beaten	бити
become	became	become	ставати
begin	began	begun	починати
bite	bit	bitten	вкусити
blow	blew	blown	дути
break	broke	broken	ламати
bring	brought	brought	приносити
build	built	built	будувати
burn	burnt / burned	burnt / burned	горіти
buy	bought	bought	купляти
catch	caught	caught	хапати
choose	chose	chosen	вибирати
come	came	come	приходити
cost	cost	cost	коштувати
cut	cut	cut	різати
deal	dealt	dealt	вирішувати
dig	dug	dug	копати
dive	dove / dived	dived	ниряти
do	did	done	робити
draw	drew	drawn	малювати

dream	dreamed / dreamt	dreamed / dreamt	мріяти
drink	drank	drunk	пити
drive	drove	driven	керувати
eat	ate	eaten	їсти
fall	fell	fallen	падати
feed	fed	fed	годувати
feel	felt	felt	відчувати
fight	fought	fought	боротися
find	found	found	знаходити
fit	fit / fitted	fit / fitted	підходити
fly	flew	flown	літати
forbid	forbade	forbidden	забороняти
forecast	forecast	forecast	передбачати
forget	forgot	forgotten	забувати
forgive	forgave	forgiven	пробачати
freeze	froze	frozen	заморожувати
get	got	got / gotten	отримувати
give	gave	given	давати
go	went	gone	йти
grow	grew	grown	рости
hang	hung	hung	висіти
have	had	had	мати (щось)
hear	heard	heard	чути
hide	hid	hidden	ховатися
hit	hit	hit	вдаряти

hold	held	held	тримати
hurt	hurt	hurt	завдавати болю
keep	kept	kept	тримати
know	knew	known	знати
lay	laid	laid	класти (щось)
learn	learned / learnt	learned / learnt	вчити
leave	left	left	полишати
lend	lent	lent	давати у борг
let	let	let	дозволяти
lie	lay	lain	лежати
light	lit / lighted	lit / lighted	освічувати
lose	lost	lost	втрачати
make	made	made	робити
mean	meant	meant	означати
meet	met	met	зустрічати
pay	paid	paid	платити
prove	proved	proven / proved	доводити
put	put	put	класти
read	read	read	читати
rid	rid	rid	позбавлятися
ride	rode	ridden	їхати
ring	rang	rung	дзвонити
rise	rose	risen	підніматись
run	ran	run	бігти
say	said	said	казати

see	saw	seen	бачити
seek	sought	sought	шукати
sell	sold	sold	продавати
send	sent	sent	надсилати
set	set	set	встановлювати
sew	sewed	sewn / sewed	шити
shake	shook	shaken	трясти
shine	shined / shone	shined / shone	світитися
shoot	shot	shot	стріляти
show	showed	shown / showed	показувати
shrink	shrank	shrunk	стискати
shut	shut	shut	закривати
sing	sang	sung	співати
sink	sank	sunk	опускатися
sit	sat	sat	сидіти
sleep	slept	slept	спати
slide	slid	slid	ковзати
smell	smelt	smelt	пахнути
speak	spoke	spoken	розмовляти
spell	spelt	spelt	зачаровувати
spend	spent	spent	витрачати
spoil	spoilt/spoiled	spoilt/spoiled	псувати
spread	spread	spread	поширюватися
stand	stood	stood	стояти
steal	stole	stole	красти

stick	stuck	stuck	прикріплювати
sting	stung	stung	жалити
strike	struck	stricken	вдаряти
swear	swore	sworn	клястися
sweep	swept	swept	підмітати
swim	swam	swum	плисти
swing	swung	swung	гойдати
take	took	taken	брати
teach	taught	taught	вчити
tear	tore	torn	рвати
tell	told	told	розповідати
think	thought	thought	думати
throw	threw	thrown	кидати
wake	woke	woken	прокидатися
wear	wore	worn	одягати
win	won	won	вигравати
write	wrote	written	писати

GUIDELINES FOR INDEPENDENT STUDY

TIPS FOR PREPARING PRESENTATIONS IN A FOREIGN LANGUAGE

Preparing a presentation in a foreign language is a complex task that requires simultaneous study of linguistic, communicative and methodological aspects. The main goal is not only to convey information, but also to ensure that the presentation is clear, logical and professional. To achieve these goals, a number of guidelines should be followed, covering structure, language, visuals and presentation skills.

1. Planning and structure

The first step is to clearly define the purpose of the presentation and key messages. It is recommended that you start by writing an outline that identifies the introduction, body and conclusion. The introduction should interest the audience, briefly introduce the topic and identify its relevance. The body should be logically divided into several sections, each covering a different aspect of the topic. The conclusion summarises the main points and formulates recommendations or a call to action. Such structure helps not only the speaker but also the audience, who perceive the information more easily.

2. Use simple and clear language

When preparing the text of the presentation, use simple sentences and clear vocabulary. It is recommended to avoid complex grammatical constructions unless they are necessary for professional accuracy. The use of subject-specific terminology allows you to demonstrate competence in the subject area, but it is important to explain unfamiliar words or terms through context or short definitions. Examples, comparisons and analogies should be included to help the audience understand the material more easily.

3. Visual design of slides

Slides should complement the oral presentation, not replace it. Each slide should have a clear title and a limited number of key points - optimally 4-6 per slide. The use of graphs, charts, images and diagrams makes the information more visual and increases its perception. It is important to adhere to a single design style: the same colour scheme, fonts and formatting of headings and text. Animations and transitions can be used, but in moderation, so as not to distract attention from the content.

4. Rehearsal and time control

Rehearsing your speech before the presentation allows you to practice your pronunciation, intonation and logic. It is useful to record yourself on audio or video to identify weaknesses and adjust the pace of your speech. Time control is critical: the presentation should fit within the allotted time limit, and each block should take approximately the same amount of time to cover the topic evenly.

5. Interacting with the audience

To increase the effectiveness of the presentation, it is important to establish contact with the audience. This can be done by asking questions of the audience, inviting them to discuss, or doing short interactive exercises. Using gestures, facial expressions, and maintaining eye contact helps to keep attention and increases understanding. If the audience is foreign, speak clearly, slowly, and repeat key points to ensure better comprehension.

6. Preparing for questions

It is equally important to prepare for the question and answer session. You should anticipate possible questions and formulate short, clear answers. For unfamiliar terms or concepts, you can prepare explanations or examples in advance. In the case of complex questions, it is advisable to paraphrase them and answer slowly, avoiding complex grammatical structures that may make it difficult for the audience to understand the information.

7. Use of supporting materials

You can use handouts, tables, infographics or short information booklets during your presentation. This helps the audience to absorb the material more

easily and retain key ideas after the presentation. It is also recommended to include references to sources or literature that increase the scientific value of the presentation.

8. Psychological preparation

Particular attention should be paid to overcoming language and psychological barriers. A positive attitude, confidence in the knowledge of the material and preparation help the speaker to speak calmly and confidently. Even if some language mistakes are made, the main thing is to clearly convey the key ideas and maintain contact with the audience.

Conclusion

A successful presentation in a foreign language combines competent planning, a clear structure, understandable vocabulary, clear slides and effective interaction with the audience. Following the above recommendations will improve the quality of your speech, make it professional and easy to understand. Preparing a presentation is not only a demonstration of knowledge of the subject area, but also the development of intercultural communication and academic language skills, which is important for successful professional activity and integration into the international scientific space.

RECOMMENDATIONS FOR PREPARING FOR AN ORAL PRESENTATION IN A FOREIGN LANGUAGE

Preparing for an oral presentation in a foreign language is a complex and multifaceted process that requires attention to linguistic, communicative, psychological and methodological aspects. The purpose of a speech is to effectively convey information, convince the audience and demonstrate the level of language proficiency, which requires systematic preparation at all stages - from choosing a topic to practising speaking. The success of a speech depends on a combination of logical structure, lexical accuracy, correct use of intonation and visual support.

1. Choosing a topic and defining the purpose

The first stage of preparation is to choose a topic for your speech and clearly define its purpose. The topic should be appropriate to the level of language proficiency and the interests of the audience, and should allow the use of professional or academic vocabulary. It is important to define the main idea of the speech and the key points to be covered. A clear statement of purpose helps to structure the speech, select appropriate arguments and examples, and ensures the logical presentation of the material.

2. Speech structure

The structure of a speech is one of the key conditions for its clarity and effectiveness. Usually, a speech consists of three main parts: introduction, body and conclusion. The introduction should interest the listeners, introduce the topic, explain its relevance and outline the plan of presentation. The main body should contain several logical blocks, each of which reveals a separate aspect of the topic, accompanied by examples, statistics or facts. The conclusion summarises the main points, focuses on the practical significance of the topic and offers recommendations or a call to action. A clear structure helps to avoid chaos in the speech and makes it easier for the audience to understand the material.

3. Selection of vocabulary and language

The choice of vocabulary and grammatical structures should be appropriate to the level of language proficiency and the specifics of the topic. It is recommended to use simple sentences to convey information clearly, but do not avoid complex structures where necessary for academic accuracy. It is important to integrate subject-specific vocabulary and key terms, while ensuring that the audience understands them through explanation or context. To increase the expressiveness and persuasiveness of the speech, it is advisable to use phrasal verbs, conjunctions, adverbs and modal verbs that emphasise the importance of the argument.

4. Rehearsal and Pronunciation

Rehearsal is an essential stage of preparation for an oral presentation. It allows you to practice your speech rate, intonation, accentuation and logical pauses.

It is recommended to practice in front of a mirror, record your speech on audio or video for self-control. This helps to identify weaknesses, correct pronunciation errors, and increase self-confidence. Regular repetition of the material helps to automate language structures and ensures natural speech during a real speech.

5. Use of auxiliary materials

Auxiliary materials such as slides, tables, diagrams or handouts help to improve the audience's understanding of the information. Slides should contain key points, graphs and illustrations, but should not be overloaded with text. It is important to adhere to a uniform design style to maintain the professionalism of the presentation. Supplementing an oral presentation with visual elements helps to focus attention on the main points and increases the memorability of the material.

6. Interacting with the audience

An effective oral presentation involves active interaction with the audience. You can use rhetorical questions, calls for discussion, interactive exercises or demonstration materials. It is important to maintain eye contact, demonstrate open body language and appropriate gestures, which helps to create an atmosphere of trust and engagement. During your presentation, it is advisable to repeat key points so that the audience can easily absorb them.

7. Preparing for questions

You should anticipate possible questions from the audience in advance and prepare clear, concise answers. In case of difficult questions, it is recommended to rephrase them for better understanding and answer calmly, avoiding overly complex constructions. This approach helps you maintain control of your speech and demonstrates your mastery of the material and competence.

8. Psychological Preparation

Overcoming the language and psychological barrier is an important aspect of a successful speech. Confidence in your own knowledge, a positive attitude and practice help to avoid stress and ensure natural speech. Even if you make some language mistakes, the main thing is to clearly convey the main ideas and maintain contact with the audience.

Conclusion

A successful oral presentation in a foreign language requires comprehensive preparation, including planning, structuring the material, selecting vocabulary, rehearsing, using auxiliary materials, interacting with the audience and psychological readiness. Adherence to these recommendations allows you to make your speech logical, convincing and professional, increases the level of communication competence and contributes to effective academic or professional activities in an international context.

GUIDELINES FOR TRANSLATING SCIENTIFIC AND POPULAR SCIENCE TEXTS INTO A FOREIGN LANGUAGE

Translation of scientific and popular science texts into a foreign language is a complex and responsible task that requires not only a high level of proficiency in the target language, but also a deep understanding of the subject area. The main goal of such a translation is to preserve the accuracy, logical structure and stylistic features of the original text, while making it understandable and accessible to the target audience. Below are systematic recommendations for the effective implementation of this task.

1. Thoroughly read the source text

Before starting a translation, you should carefully read and analyse the source text. It is important to determine the main idea, purpose and structure of the material. In scientific texts, special attention should be paid to the research objectives, methodology, results and conclusions. In popular science texts, it is important to highlight key arguments, illustrative examples, and the general logic of the presentation. Terminology and context-specific expressions should be emphasised, as an accurate understanding of these elements is critical for an adequate translation.

2. Maintaining accuracy and terminology

In scientific translation, it is necessary to accurately reproduce information and professional terminology. Before translation, it is useful to compile a glossary of specialised terms and ensure their consistent use throughout the text.

Reliable dictionaries, specialised databases, and peer-reviewed publications should be used to find adequate equivalents. Incorrect interpretation of terms can lead to a distortion of meaning and a decrease in the credibility of the translation. In popular science texts, accuracy is also important, but some stylistic adaptation is allowed to facilitate the perception of a wide audience.

3. Consideration of the text's style and genre

Scientific texts are characterised by formal, pointed language with a logical sequence of presentation. The translator should maintain this formality by using appropriate grammatical structures, passive voice, and precise terms. Popular science texts are characterised by more lively and accessible language, examples, illustrations and explanations of complex concepts. Here, the translator can apply adaptation strategies to make the text more understandable for a layperson without losing scientific accuracy.

4. Working with syntax and punctuation

Scientific and popular science texts often contain complex sentences with subordinate clauses, abbreviations and special punctuation. When translating, it is important to preserve the logical structure of sentences, use commas, dashes and brackets correctly, and adapt complex syntactic structures to the norms of the target language to make the text understandable.

5. Use of auxiliary resources

To improve the quality of translation, it is recommended to use specialised dictionaries, terminology databases, scientific articles, glossaries of international organisations and online resources. This ensures the accuracy of terminology, relevance of information and compliance of the translation with modern standards in scientific communication.

6. Checking and editing

After the translation is completed, it is necessary to carefully check the text for accuracy, logic, stylistic consistency and grammatical correctness. It is recommended to involve specialists in the relevant field or native speakers for additional verification and clarification of terminology. This helps to avoid mistakes and increases the scientific credibility of the translation.

7. Adaptation to the target audience

When translating popular science texts, it is important to take into account the level of knowledge of the target audience. For students or junior professionals, the text can be simplified, terms explained, and examples added. For scientific texts, the target audience is specialists and researchers, so the translation should be as accurate as possible while maintaining the specifics of the scientific style.

8. Formatting and presentation

It is important that the translation complies with the standards of formatting for scientific and popular science publications: correct formatting of headings, subheadings, lists, tables, graphs and references. This ensures easy perception of the text and improves its professional quality.

Conclusion

Translation of scientific and popular science texts is a process that combines linguistic skills, a deep understanding of the subject area, and the ability to adapt the style of the text to the target audience. Adherence to the above recommendations helps to ensure the accuracy, clarity and scientific reliability of the translation, contributing to the effective dissemination of knowledge in the international scientific community.

RECOMMENDATIONS FOR SUMMARIZING SCIENTIFIC AND JOURNALISTIC TEXTS IN A FOREIGN LANGUAGE

Summarizing scientific and journalistic texts in a foreign language is an essential skill for students, researchers, and professionals, as it allows one to convey the main ideas and arguments of a source accurately and concisely. The process of summarizing requires careful reading, critical analysis, and clear formulation of the content. The following guidelines provide a structured approach to writing effective summaries.

1. Understanding the Text

Before writing a summary, it is necessary to thoroughly understand the text. Identify its purpose, target audience, and the author's perspective. In scientific texts, pay attention to the research questions, methodology, findings, and

conclusions. In journalistic or publicistic texts, focus on the main message, key arguments, and supporting evidence or examples. Highlighting key points, noting unfamiliar terminology, and identifying cause-and-effect relationships are essential steps in comprehension.

2. Distinguishing Main Ideas from Details

A high-quality summary should include only the essential information. Distinguish between main ideas, arguments, and minor details. In scientific texts, focus on research objectives, methods, results, and implications. In journalistic texts, include the main topic, supporting facts, and conclusions. Avoid including personal opinions or unrelated information.

3. Organizing the Summary

A summary should be logically structured. Start with an introductory sentence that provides the title, author, and general topic. Present the main points sequentially, maintaining coherence and logical flow. Use linking phrases to connect sentences and paragraphs smoothly. Conclude with a sentence summarizing the overall argument or findings. This ensures that the reader understands the gist of the text without needing to refer to the original source.

4. Using Appropriate Language

Academic and journalistic summaries require formal and objective language. Avoid colloquial expressions, overly detailed descriptions, or subjective commentary. Use precise vocabulary and grammatically correct constructions. For scientific texts, phrases like "The study demonstrates that..." or "The results indicate..." are appropriate, while for journalistic texts, expressions such as "The article reports that..." or "According to the author..." are suitable. Accurate use of tenses is also important: present simple is typically used for general statements, while past simple or present perfect may be used for specific findings or historical events.

5. Paraphrasing and Avoiding Plagiarism

Effective summarizing requires paraphrasing the original text without changing the meaning. Rewriting the content in your own words demonstrates comprehension and ensures academic integrity. Direct quotations should be used sparingly and clearly referenced. Paraphrasing also helps to condense

complex sentences and simplify technical terms while retaining essential meaning.

6. Reviewing and Editing

After drafting a summary, revise it for clarity, conciseness, and coherence. Ensure that all main points are included and minor details omitted. Check grammar, punctuation, and vocabulary usage. Reading the summary aloud can help detect awkward phrasing or unclear transitions. Make sure the final version accurately reflects the structure and content of the original text.

7. Recommended Structure of a Summary

- Introduction: Mention the title, author, publication, and general topic.
- Main Body: Present key points, arguments, results, or events in logical order.
- Conclusion: Summarize the overall message, outcome, or implication.

8. Key Academic and Journalistic Phrases for Summarizing

Here are 30 useful phrases for summarizing texts in English, with Ukrainian translations:

1. The author discusses... – Автор обговорює...
2. The article examines... – Стаття досліджує...
3. The study highlights... – Дослідження висвітлює...
4. The research focuses on... – Дослідження зосереджене на...
5. The paper aims to... – Стаття має на меті...
6. The author argues that... – Автор стверджує, що...
7. According to the study... – Згідно з дослідженням...
8. The text provides an overview of... – Текст надає огляд...
9. The findings indicate... – Результати вказують на...
10. The author emphasizes... – Автор наголошує...
11. The study demonstrates... – Дослідження демонструє...
12. The main point is... – Головна теза полягає в...
13. The article explores... – Стаття досліджує...
14. The research suggests... – Дослідження пропонує...

15. It is concluded that... – Робиться висновок, що...
16. The author notes that... – Автор зазначає, що...
17. The study outlines... – Дослідження окреслює...
18. The paper presents... – Стаття представляє...
19. The results show... – Результати показують...
20. The author claims that... – Автор заявляє, що...
21. The text highlights the importance of... – Текст підкреслює важливість...
22. According to the findings... – Згідно з результатами...
23. The study examines the role of... – Дослідження аналізує роль...
24. The research addresses... – Дослідження розглядає...
25. The author provides evidence that... – Автор надає докази того, що...
26. The paper investigates... – Стаття досліджує...
27. It can be observed that... – Можна спостерігати, що...
28. The text presents arguments for/against... – Текст представляє аргументи за/проти...
29. The author summarizes... – Автор підсумовує...
30. The study concludes that... – Дослідження робить висновок, що...

GUIDELINES FOR DESCRIBING GRAPHS AND CHARTS IN ENGLISH

Describing graphs and charts is an essential skill for academic writing, business reports, and research presentations. A clear and structured approach allows the reader or listener to understand trends, compare data, and identify key insights effectively. When working with visual data, it is important to follow a logical sequence: introduction, description of main features, trends, comparisons, and conclusion.

1. Introduction

Start by briefly introducing the graph, chart, or diagram. Mention the type of visual representation, what it illustrates, and the time frame or scope. For example, you can say: "The bar chart illustrates the annual energy consumption in Europe from 2010 to 2020," or "The pie chart shows the distribution of different waste types in urban households in 2022." The introduction should give a concise overview of what the graph represents without going into details.

2. Describe the main features

Next, describe the main features of the graph. Identify the highest and lowest values, peaks, troughs, and any noticeable patterns. Use precise vocabulary and linking words to structure your description. For example: "Renewable energy usage increased steadily over the ten-year period," or "Plastic waste accounts for the largest proportion of total waste, followed by organic and paper waste." Avoid listing numbers without context; instead, focus on trends and significant changes.

3. Identify trends and patterns

Highlight any trends or patterns that the data reveal. Trends can be increasing, decreasing, stable, fluctuating, or cyclical. For example: "There is a marked decline in coal consumption from 2015 to 2020," or "Energy usage remained relatively stable between 2010 and 2013, then increased sharply in 2014." Use comparative language to emphasize differences or similarities.

4. Compare data points

Where appropriate, make comparisons between data points, categories, or time periods. Phrases like "in contrast," "compared to," and "while ..., ..." help to clarify relationships. For example: "While renewable energy sources increased, fossil fuel consumption declined over the same period." Highlight the most relevant comparisons that support the analysis.

5. Conclude with a summary

End your description with a short summary of the key insights or overall trends. Avoid introducing new data. For example: "Overall, the chart indicates a significant shift towards renewable energy sources, while traditional energy

consumption continues to decrease." This helps to reinforce the main message and provides a coherent conclusion.

6. Tips for clarity:

- Always use precise terminology: "increase," "decrease," "peak," "drop," "fluctuate," "remain stable."
- Use linking words to organize your description: "however," "in contrast," "similarly," "as a result."
- Focus on main trends rather than minor details unless specifically required.
- Pay attention to units of measurement and scales to avoid misrepresentation.
- When dealing with multiple graphs, reference them clearly: "As shown in Figure 2..."

7. Useful phrases for describing graphs and charts:

English phrase	Ukrainian translation
The graph illustrates...	Графік ілюструє...
The chart shows...	Діаграма показує...
The data indicate...	Дані свідчать про...
It can be seen that...	Можна побачити, що...
There is a significant increase in...	Спостерігається значне зростання...
There is a sharp decline in...	Спостерігається різке зменшення...
The number of ... rose steadily	Кількість ... зростала стабільно
The proportion of ... decreased	Частка ... зменшилася
Compared to ...	У порівнянні з ...
While ..., ...	У той час як ..., ...
In contrast to ...	На відміну від ...
Similarly, ...	Подібним чином, ...
The highest value is ...	Найвище значення – ...

English phrase	Ukrainian translation
The lowest figure is ...	Найменше значення – ...
There was a gradual increase	Спостерігалось поступове збільшення
There was a rapid decline	Спостерігалось швидке зменшення
The trend remained stable	Тренд залишався стабільним
Over the period ...	Протягом періоду ...
As a result, ...	Внаслідок цього, ...
Overall, ...	Загалом, ...
The data suggest that ...	Дані припускають, що ...
The chart compares ...	Діаграма порівнює ...
The graph highlights ...	Графік підкреслює ...
The figures indicate ...	Цифри свідчать про ...
A slight increase can be seen	Можна побачити незначне зростання
A sharp drop occurred	Відбулося різке падіння
The majority of ...	Більшість ...
Only a small proportion ...	Лише невелика частка ...
There is a noticeable difference between ...	Спостерігається помітна різниця між ...
The data can be interpreted as ...	Дані можна інтерпретувати як ...

Using these strategies and phrases, students can produce clear, structured, and academically appropriate descriptions of graphs and charts. Practice is essential: analyzing various types of charts—bar charts, line graphs, pie charts, and tables—will improve accuracy and fluency in presenting data. Developing these skills is crucial for academic writing, professional reports, and international research communication.

VOCABULARY

A

abiotic factors	абіотичні чинники
accept	приймати
accurate	точний
accurately	точно
achieve	досягати
acknowledge	визнавати
acquire	набувати
actually	насправді
adapt	приспосовуватися
adequate	достатній
adjust	регулювати, налаштовувати
admit	визнавати, допускати
affect	впливати
afford	дозволяти собі
aim	прагнути, націлюватися
allow	дозволяти
ambitious	амбітний
announce	оголошувати
anthropogenic emissions	антропогенні викиди
anthropogenic factors	антропогенні чинники
anthropogenic pollution	антропогенне забруднення
anticipate	передбачати
apparently	очевидно
applied ecology	прикладна екологія
appreciate	цінувати

appropriate
approximately
argue
arrange
assume
atmosphere
autecology

avoid
aware

доречний
приблизно
сперечатися, доводити
організовувати
припускати
атмосфера
аутекологія (екологія окремих
організмів)
уникати
обізнаний

В

basic
basically
behave
belong
biocapacity
biodiversity
biome
biosphere
biosphere reserve
biotic factors
biotope

основний
по суті
поводитися
належати
біоемність
біорізноманіття
біом
біосфера
біосферний заповідник
біотичні чинники
біотоп

С

capable
capture
carbon (climate) balance
carbon footprint

здатний
захоплювати
вуглецева (кліматична) рівновага
вуглецевий слід

carbon neutrality	вуглецева нейтральність
certainly	безумовно
cfcs - chlorofluorocarbons	фреони – хлорфторвуглеводні (ХФВ)
chemical pollution	хімічне забруднення
circular economy	циркулярна економіка
claim	стверджувати, вимагати
climate change	зміна клімату
climate migrants	кліматичні мігранти
climate neutrality	кліматична нейтральність
climate refugees	кліматичні біженці
closed ecological system	замкнена екологічна система
closed-loop innovation	інновація замкнутого циклу
closely	тісно, уважно
collapse	руйнуватися, занепадати
common	поширений
commonly	зазвичай
compare	порівнювати
complain	скаржитися
completely	повністю
complex	складний
concern	стосуватися
confident	упевнений
confirm	підтверджувати
conscious	свідомий
consequently	отже, внаслідок
considerable	значний
consist	складатися
constant	постійний

constantly
contemporary
contribute
convenient
convince
cope
crucial
current
currently
cycle

постійно
сучасний
робити внесок
зручний
переконувати
справлятися
вирішальний
поточний
наразі
цикл

D

definitely
delay
deliberate
deliberately
deny
depend
dependent
deserve
detailed
determine
directly
distinguish
diversity
domestic
downcycling

безперечно
відкладати, затримувати
навмисний
навмисно
заперечувати
залежати
залежний
заслуговувати
детальний
визначати
безпосередньо
розрізняти
різноманіття
внутрішній, домашній
даунсайклінг

Е

earth's surface heat balance	тепловий баланс земної поверхні
easily	легко
ecological deficit	екологічний дефіцит
ecological footprint	екологічний слід
ecological reserve	екологічний резерв
ecology	екологія
ecosystem	екосистема
effectively	ефективно
efficient	ефективний
electromagnetic pollution	електромагнітне забруднення
emerge	виникати
emission reduction	зменшення викидів
enable	давати змогу
encounter	зіштовхуватися
encourage	заохочувати
enhance	покращувати
environment	навколишнє середовище
environmental efficiency	екологічна ефективність
environmental sustainability	екологічна сталість / сталий розвиток довкілля
environmental tolerance	екологічна толерантність
essential	необхідний
establish	засновувати
eventual	остаточний
eventually	зрештою
exactly	точно
examine	досліджувати, перевіряти
expand	розширювати

expose
extend
extraordinary
extremely

викривати
продовжувати, розширювати
надзвичайний
надзвичайно

F

factor
fairly
familiar
finally
fossil fuel
freecycling
frequent
frequently

чинник
досить, справедливо
знайомий
нарешті
викопне паливо
фрісайклінг
частий
часто

G

generally
geoecosystem
global
global environmental problems
global warming
gradually
great acceleration
green economy
greenhouse effect
greenhouse gases

Загалом
геоекосистема
глобальний
глобальні екологічні проблеми
глобальне потепління
поступово
велике прискорення
зелена економіка
парниковий ефект
парникові гази

H	
hardly	навряд чи
hierarchy of waste	ієрархія відходів
highly	дуже, високо
household waste	побутові відходи
I	
illegal landfill	несанкціоноване звалище
immediate	негайний
immediately	негайно
increasingly	дедалі більше
indeed	справді
independent	незалежний
inevitable	неминучий
influence	впливати
initial	початковий
instead	натомість
intelligent	розумний
internal	внутрішній
invasive species	інвазивні види
L	
largely	переважно
lately	останнім часом
light pollution	світлове забруднення
likely	ймовірний
linear economy	лінійна економіка
living organism	живий організм
loss of natural habitat	втрата природного середовища існування

M

mainly	ГОЛОВНИМ ЧИНОМ
maintain	підтримувати
major	ГОЛОВНИЙ
manage	керувати, вдаватися
mental	психічний
minor	незначний
mitigation	мітігація
mostly	здебільшого

N

nationally determined contributions (ndcs)	національно визначені внески (ndcs)
natural disasters	природні катастрофи
natural habitat	природне середовище існування
natural resource management	управління природокористуванням
nearly	майже
noise pollution	шумове забруднення
noosphere	ноосфера

O

obvious	очевидний
obviously	очевидно
ocean acidification	окислення океану (закислення океану)
overconsumption	надспоживання
ozone layer	озоносфера (озоновий екран)
ozone-depleting substances (ods)	озоноруйнівні речовини

P

particular	певний, особливий
particularly	особливо
perhaps	можливо
permanent	постійний
pollutant	забруднювач
pollution	забруднення
pollution prevention	запобігання забрудненню
population	населення
population dynamics	динаміка популяцій
possibly	ймовірно
previous	попередній
previously	раніше
producer	продуцент
proper	належний
properly	належним чином

Q

quickly	швидко
quite	досить

R

radioactive pollution	радіоактивне забруднення
rarely	рідко
reasonable	розумний
recently	нещодавно
recover	відновлювати
recycle	переробляти
recycling	переробка

reduce	зменшувати
refurbish	оновлювати
refuse	відмовитися
regenerate	регенерувати, відтворювати
relatively	відносно
relevant	доречний, відповідний
remanufacture	повторно виготовляти
remarkable	визначний
renovation	реновація
repair	ремонтувати
repurpose	перепрофільовувати
resource consumption	ресурсоспоживання
resource use	ресурсовикористання
restore	відновлювати
rethink	переосмислювати
reuse	використовувати повторно
roughly	приблизно

S

sea level	рівень моря
sea level rise	підвищення рівня моря
separate waste collection	роздільне збирання відходів
significant	значущий
significantly	суттєво
sorting of waste	сортування відходів
source of pollution	джерело забруднення
species	вид

standards of maximum allowable concentrations of harmful (polluting) substances
subspecies
suddenly
sustainable development goals (sdgs)
synecology

нормативи гранично допустимих концентрацій шкідливих (забруднюючих) речовин
підвид
раптово
цілі сталого розвитку
синекологія (екологія угруповань)

T

technogenic (man-made) disasters
temporary
thermal pollution
three pillars of sustainability
trophic chain / food chain
trophic group

техногенні катастрофи
тимчасовий
теплове забруднення
тріада сталого розвитку
трофічний ланцюг / харчовий ланцюг
трофічна група

U

unique
upcycling
urban ecosystem

Унікальний
апсайклінг
міська екосистема

V

various

різноманітний

W

waste
waste disposal facility
waste management

відходи
об'єкт для розміщення відходів
управління відходами

water footprint

водний слід

X

xenobiotic

ксенобіотик

GLOSSARY OF COMMON ECOLOGY ABBREVIATIONS

Abbr.	Definition	Переклад
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A

ACO	Area of occupancy	Площа поширення виду в межах ареалу
ACEC	Area of Critical Environmental Concern	Зона особливого екологічного значення
ADD	Average daily potential dose	Середньодобова потенційна доза
ADE	Average Daily Exposure	Середньодобовий рівень впливу
AEPMM	Active Exposure Pathway Mitigation Measure	Заходи активного зменшення впливу через шлях експозиції
AP	Averaging Period	Період усереднення
ARAR	Applicable or Relevant and Appropriate Requirement	Застосовна або відповідна нормативна вимога

ARD	Absolute Rate of Decline	Абсолютна швидкість зменшення
AST	Above Ground Storage Tank	Наземний резервуар для зберігання
ATC	Allowable Threshold Concentration	Гранично-допустима концентрація (ГДК)
AUL	Activity and Use Limitation	Обмеження діяльності та використання
AWQC	Ambient Water Quality Criteria	Критерії якості навколишнього (водного) середовища

В

BDAT	Best Demonstrated Available Technology	Найкращі доступні технології (НДТМ)
BDL	Below Detection Limit	Нижче межі виявлення
BEF	Biodiversity and Ecological Forecasting	Біорізноманіття та екологічне прогнозування
Bgs	below ground surface	Нижче поверхні землі
BOD	Biological Oxygen Demand	Біологічне споживання кисню (БСК)

BOH	Board of Health	Рада з питань охорони здоров'я (або Санітарна рада)
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes	Бензол, толуол, етилбензол і ксилоли (загальна група BTEX)

C

CDF	Confined Disposal Facility	Закритий об'єкт (полігон) захоронення відходів
CEM	Commission of Ecosystem Management	Комісія з управління екосистемами
CEP	Critical Exposure Pathway	Критичний шлях впливу
CFC	Chlorofluorocarbon	Хлорфторвуглець
CR	Critically Endangered	Зникаючі (види)

D

DAD	Dead and Decomposing	Мертвий і такий, що розкладається
dB	Decibel	Децибел
DCE	Dichloroethylene	Дихлоретилен

DD	Data Deficient	Недостатньо даних
DEIR	Draft Environmental Impact Report	Проект звіту про оцінку впливу на довкілля (ОВД)
DQO	Data Quality Objectives	Цілі забезпечення якості даних
DRE	Destruction Removal Efficiency	Ефективність знищення та видалення

E

E/P	Evaporation/percolation	Випаровування/просочування
ECD	Electron Capture Detector	Детектор із захопленням електронів
ED	Exposure Duration	Тривалість впливу
EF	Exposure Frequency	Частота впливу
EHS	Extremely Hazardous Substance	Надзвичайно небезпечна речовина
EIR	Environmental Impact Report	Звіт про оцінку впливу на довкілля (ОВД)
ELCR	Excess Lifetime Cancer Risk	Підвищений ризик захворювання на рак протягом життя

EN	Endangered	Під загрозою зникнення (вразливі види)
EOO	Extent of occurrence	Ареал поширення (виду)
EPC	Exposure Point Concentration	Концентрація в точці впливу
ERL	Effects Range Low	Нижній поріг діапазону впливу
ERM	Effects Range Median	Середній поріг діапазону впливу

F

FB	Field Blank	Контрольна (польова) проба
FEIR	Final Environmental Impact Report	Остаточний звіт про оцінку впливу на довкілля
FI	Food Intake	Споживання їжі
FID	Flame Ionization Detector	Детектор іонізації полум'ям
FONSEI	Finding Of No Significant Environmental Impact	Висновок про відсутність значного впливу на довкілля
FP	Flash Point	Температура спалаху

FS	Feasibility Study	Техніко-економічне обґрунтування
FSP	Field Sampling Plan	План відбору польових проб

G

GC	Gas chromatography	Газова хроматографія
GEMP	Global Ecosystem Management Program	Глобальна програма управління екосистемами
GIS	Geographic Information System	Геоінформаційна система
GPM	Gallons per Minute	Галони за хвилину
GW	Ground Water	Підземні води
GSP	Global Species Program	Глобальна програма охорони видів
GWTP	Ground Water Treatment Plant	Установка для очищення підземних вод

H

H&S	Health and Safety	Охорона здоров'я та безпека
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HAP	Hazardous Air Pollutant	Небезпечний забруднювач повітря
HASP	Health and Safety Plan	План з охорони праці та техніки безпеки
HI	Hazard Index	Індекс безпеки
HQ	Hazard Quotient	Коефіцієнт безпеки
HRS	Hazard Ranking System	Система ранжування небезпек
HM	Hazardous Material	Небезпечна речовина
HW	Hazardous Waste	Небезпечні відходи

I

IH	Imminent Hazard	Безпосередня небезпека
IM	Interim Measure	Тимчасовий захід
IR	either: (a) Infra- Red or (b) Ingestion Rate	(a) Інфрачервоне випромінювання або (b) Рівень споживання
IRA	Immediate Response Action	Негайні заходи реагування
IRAP	Immediate Response Action Plan	План негайних заходів реагування

IUCN	International Union for Conservation of Nature	Міжнародний союз охорони природи (МСОП)
IWTP	Industrial Wastewater Treatment Plan	Промислова установка (споруда) очистки стічних вод

L

LAER	Lowest Achievable Emission Rate	Мінімальний досяжний рівень викидів
LC	Least Concern	Поширений (статус виду)
LDR	Land Disposal Restrictions	Обмеження на захоронення відходів
LLRW	Low Level Radioactive Waste	Низькоактивні радіоактивні відходи
LRA	Limited Removal Action	Обмежене видалення
LSP	Licensed Site Professional	Ліцензований спеціаліст
LTBI	Location To Be Investigated	Місце, яке підлягає дослідженню

M

MACT	Maximum Available Control Technology	Найефективніша доступна технологія контролю
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MCL	Maximum Contaminant Level	Максимальний рівень забруднювача
MDL	Method Detection Limit	Поріг виявлення (певним методом)
MF	Modifying Factor	Коригувальний коефіцієнт
MS	Mass spectrometry	Мас-спектрометрія
MSL	Mean Sea Level	Середній рівень моря

N

NAAQS	National Ambient Air Quality Standards	Національні стандарти якості атмосферного повітря
NCP	National Contingency Plan	Національний план дій у надзвичайних ситуаціях
ND	either (a) Not Detected or (b) Non- Detect	Не виявлено
NE	Not Evaluated	Не оцінено
NFA	No Further Action	Не потребує подальших дій
NOAEL	No Observed Adverse Effects Level	Рівень без спричинення несприятливих (побічних) ефектів

NOEL	No Observed Effects Level	Рівень відсутності спостережуваних ефектів
NRD	Natural Resource Damage	Шкода природним ресурсам
NSR	No Significant Risk	Відсутність значного ризику
NT	Near Threatened	Близький до загрозливого стану

О

O&M	Operation and Maintenance	Експлуатація та технічне обслуговування
OHM	Oil and/or Hazardous Material	Нафта та/або небезпечні речовини
ORW	Outstanding Resource Water	Цінні водні ресурси

Р

PDWSA	Potential Drinking Water Source Area	Площа потенційного водозабору питної води
POTS	Permanent or Temporary Solution	Постійне або тимчасове рішення
PRD	Proportional Rate of Decline	Пропорційна швидкість зниження

Ppm	parts per million	Частки на мільйон
ppm/v	parts per million by volume	Частки на мільйон за об'ємом
ppt	parts per trillion	Частки на трильйон
PQL	Practical Quantitation Limit	Практична межа кількісного визначення
PRA	Preliminary Response Action	Попередні заходи реагування
PRP	Potentially Responsible Party	Потенційно відповідальна сторона
PSD	Prevention of Significant Deterioration	Запобігання значному погіршенню
PSC	Permanent Solution with Conditions	Постійне рішення з умовами
PSNC	Permanent Solution with no Conditions	Постійне рішення без умов
PTS	Permanent or Temporary Solution	Постійне або тимчасове рішення

Q

QA	Quality assurance	Забезпечення якості
QC	Quality control	Контроль якості

R

RAO	Response Action Outcome	Результат заходів реагування
RI/FS	Remedial Investigation and Feasibility Study	Дослідження та оцінка ліквідації
RIP	Remedy Implementation Plan	План впровадження заходів ліквідації
RLE	Red List of Ecosystems	Червоний список екосистем
RLTS	Red List of Threatened Species	Червоний список зникаючих видів
RQ	Reportable Quantity	Звітна кількість

S

SIC	Standard Industrial Classification.	Стандартна промислова класифікація
SOP	Standard Operating Procedure	Стандартна операційна процедура
SRM	Substantial Release Migration	Суттєве переміщення викидів
SSC	Species Survival Commission	Комісія з виживання видів

STEL	Short-Term Exposure Limit	Гранично допустима концентрація (максимально разова)
SVE	Soil Vapor Extraction	Екстракція парів із ґрунту

Т

TEF	Toxicity Equivalency Factor	Фактор еквівалентності токсичності
TEL	Threshold Effects Level in air	Пороговий рівень забруднення повітря
TEQ	Toxicity Equivalent	Еквівалент токсичності
TICs	Tentatively Identified Compounds	Попередньо визначені сполуки
TMPS	Temporary Solution	Тимчасове рішення
TOR	Threat of Release	Загроза викиду
TOV	Total Organic Vapors	Сукупність органічних парів
TQ	Threshold Quantity	Поріг кількості
TRC	Technical Review Criteria	Критерії технічного огляду
TRI	Toxic Release Inventory	Реєстр викидів токсичних речовин

TSDf	Treatment, Storage and Disposal Facility	Об'єкт зберігання, обробки та утилізації
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U

UST	Underground Storage Tank	Підземний резервуар
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UTM	Universal Transverse Mercator	Універсальна поперечна меркаторська проекція
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UV	Ultra-Violet	Ультрафіолетове випромінювання
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V

VU	Vulnerable	Вразливий
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W

WQC	[Ambient] Water Quality Criteria	Критерії якості поверхневих вод
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WWTP	Waste Water Treatment Plant	Станція очищення стічних вод
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AUDIOSCRIPTS

UNIT 1

Audio 1.1

NOOSPHEROLOGY

The Ukrainian scientist Volodymyr Vernadsky believed that when humans appeared on Earth, a new stage in the development of the biosphere began. This new stage is called the noosphere, or "the sphere of mind." Vernadsky said that human thought and science began to change nature more quickly and in new ways.

To solve the global environmental crisis, people around the world need to change how they live and work together — no matter where they live or how developed their country is.

Creating the noosphere means building a world where people and nature live in balance. It is a fairer and more sustainable world. The idea is that humanity is entering a new phase, where the human mind becomes the main force that shapes life on Earth. This means people are not just watching nature but actively making decisions that influence the planet's future.

Interesting facts!

The Noosphere icebreaker is the main ship of Ukraine's research fleet. It used to be a ship in the UK's Royal Research Fleet and became part of Ukraine's fleet on August 19, 2021, just before Ukraine's 30th Independence Day. The name Noosphere is very meaningful. It comes from the ideas of Vernadsky, who also gave his name to Ukraine's Antarctic research station. The icebreaker and the station are connected by this name. Noosphere means the space where people and nature interact.

Audio 1.2

ECOLOGICAL FACTORS

An ecological factor is any property or component of the environment that can affect an organism. Ecological factors have a direct or indirect impact on the life, population, and geographical distribution of living organisms on our planet. Ecological factors are divided into:

- abiotic (climatic, orographic, hydrological, edaphic);
- biotic (relationships between organisms: symbiosis, parasitism, neutralism, etc.);
- anthropogenic (human influence).

It should be noted that environmental factors affect organisms within certain limits, and the reaction of the organism depends on the intensity of these factors. In the case of weak or excessive influence of a factor, the vital activity of organisms is significantly reduced. The range of influence of a factor in which an organism can exist is called the limits of endurance. The values that limit these limits are the maximum and minimum effects of this factor. Such limits are described by the law of optimum (or Shelford's rule of tolerance): any environmental factor has certain limits of positive influence on living organisms (Figure 3).

The effects of environmental factors can be:

1. Periodic (depending on the time of day, season, position of the Moon relative to the Earth).
2. Non-periodic (volcanic eruptions, earthquakes, hurricanes, etc.).
3. Directional (occurring over significant periods of time – changes in the Earth's climate).

UNIT 2

Audio 2.1

DDT – Case 1

The greater the biodiversity on Earth, the more habitable the planet is, which is why it is important to preserve and protect all species of plants and animals. In an attempt to get rid of mosquitoes and malaria, Indonesia disrupted the natural ecological chain. Mysterious events began to occur. First, the roofs of residents' houses began to collapse, then there was a mass death of cats, and finally, the plague came to the island.

Why did this happen? Because, in addition to mosquitoes, DDT also killed cockroaches. They did not die, but became slower, so lizards began to eat them in large quantities. Accumulating in the lizards' bodies, DDT caused nervous disorders and weakened their reflexes, so they fell prey to cats more often than usual.

The mass destruction of lizards allowed caterpillars to multiply, which ate the roofs of houses made of reeds, causing them to collapse. In addition, cats began to die en masse from DDT poisoning. With the cats gone, there was no one to control the population of rats that flooded the island. Rats live in symbiosis with fleas, which are carriers of the plague bacillus. Instead of malaria, the island's inhabitants contracted another, more terrible disease – the plague.

Audio 2.2

DDT – Case 2

About 40 years ago, the number of bald eagles in the United States became very low. Seeing one was rare and special. This bird, which is the national symbol of the USA, was close to disappearing forever. The main reasons for their decline were illegal hunting, pollution from pesticides, and loss of their natural habitat. By 1963, there were only 487 pairs of bald eagles left.

After that, important steps were taken to help the bald eagle survive. In 1972, the USA banned DDT, a dangerous pesticide that polluted their food. In 1973, the Endangered Species Act was created, giving the bald eagle special protection. During the 1980s, several recovery programs started across the

country. By 1995, the bald eagle moved from the “endangered” list to the “threatened” list.

Finally, on 9 August 2007, the bald eagle was removed from the list of threatened species.

UNIT 3

Audio 3.1

WHY DOES 1.5°C MATTER AND HOW WILL FUTURE CLIMATE CHANGE AFFECT THE WORLD?

The more the Earth’s temperature rises, the more serious the effects of climate change become. Scientists and leaders agree that it is very important to keep the long-term average global temperature rise below 1.5°C compared to pre-industrial times. This means that the world should not warm more than 1.5 degrees Celsius on average over a period of about 20 years.

In 2015, almost 200 countries signed the Paris Agreement. They promised to work together to limit global warming to 1.5°C. This goal is very important because if the Earth warms more than this, the damage will be much worse.

The science is not always 100% certain, but the United Nations explains some possible differences between a 1.5°C and a 2°C rise in temperature:

At 2°C warming, extreme hot days in many parts of the world, especially in places between the tropics and the poles (called mid-latitudes), could be 4°C hotter on average, while at 1.5°C warming they might be 3°C hotter. This means more heat stress and health problems.

Sea levels could rise about 0.1 meters (10 centimeters) more with 2°C warming than with 1.5°C. This small difference can put up to 10 million extra people at risk of floods and other problems caused by high water.

More than 99% of coral reefs could die if the temperature rises by 2°C, but only 70–90% might be lost at 1.5°C. Coral reefs are very important for ocean life and coastal protection.

Twice as many plants and animals with backbones (called vertebrates) might face climates where they cannot survive if the temperature rises by 2°C compared to 1.5°C. This affects biodiversity and ecosystems.

By the year 2050, hundreds of millions more people might suffer from climate-related dangers like food shortages, floods, and poverty at 2°C warming compared to 1.5°C.

Because of these risks, scientists and policymakers stress the urgent need to reduce greenhouse gas emissions and switch to cleaner energy sources.

Audio 3.2

CLIMATE CHANGE AND HUMAN HEALTH

Research shows that about 3.6 billion people already live in places that are very vulnerable to climate change. These areas may experience more heat, droughts, floods, or diseases because of changing weather patterns.

Between 2030 and 2050, climate change is expected to cause approximately 250,000 extra deaths every year. These deaths will come from problems like:

- Undernutrition (not getting enough food or nutrients)
- Malaria (a disease spread by mosquitoes)
- Diarrhea (often caused by unsafe water)
- Heat stress (health problems caused by very high temperatures)

The direct costs for health problems caused by climate change (not counting other sectors like farming or clean water) could be between 2 and 4 billion US dollars per year by 2030. This means a lot of money will be needed to help people stay healthy and treat illnesses linked to climate change.

Because health is closely connected to many other areas, such as food production and water supply, the real costs and impacts could be even higher.

UNIT 4

Audio 4.1

EARTH OVERSHOOT DAY, OR WHY IS ONE PLANET NOT ENOUGH FOR US?

It is extremely disturbing that the rate of degradation of the planet's ecosystems is constantly increasing. Humanity is using resources much faster than they can be replenished: water, air, animal and plant resources calculated for consumption in a calendar year. Accordingly, for the rest of the calendar year, we are living in 'debt'.

Earth Overshoot Day marks the date when humanity's demand for ecological resources and services in a given year exceeds what Earth can regenerate in that year. According to data from the Global Footprint Network (GFN), humanity currently needs 1.75 planets like Earth to meet its demands. This indicator has been calculated since 1986. Crossing this red line occurs earlier and earlier each year. For example, in 1970, Earth Overshoot Day was recorded on 29 December (almost on time), in 1993 it was 21 October, in 2003 it was 22 September, in 2015 it was 13 August, in 2017 it was 2 August, and in 2021 it will be 29 July, and in 2025 it will be 24 July. – 13 August, in 2017 on 2 August, in 2021 on 29 July, and in 2025 on 24 July. [23]

Is your country running an ecological deficit? Today, more than 80 percent of the world's population lives in countries that are running ecological deficits, using more resources than what their ecosystems can regenerate. How does your country compare? [23]

Every year, a Country Overshoot Day marks the date when the planet's annual biocapacity budget would be used up if everyone on Earth lived at the same level of consumption as the residents of that particular country.[23]

UNIT 5

Audio 5.1

ENVIRONMENTAL DISASTERS – Part 1

Environmental disasters have their own specific characteristics: they may not cause any human casualties, but they inflict irreparable damage to the environment. Undoubtedly, the Chernobyl accident will remain in the world's consciousness for decades to come as an example of negligent human activity and large-scale environmental damage. Unfortunately, this is not the only case in human history...

The disaster at the Fukushima-1 nuclear power plant in 2011 in Japan was caused by a powerful earthquake with a magnitude of 9.0 (the Great East Japan Earthquake), followed by a devastating tsunami. Although the nuclear power plant itself was designed to withstand seismic activity and withstood the earthquake, the subsequent 15-metre tsunami wave overwhelmed the design protective structures (breakwaters up to 5.7 metres high).

Consequences. There was a significant release of radioactive substances (mainly iodine-131 and caesium-137) into the atmosphere, soil and ocean. The level of contamination was so high that the accident was assigned a 7 (maximum) rating on the International Nuclear Event Scale (INES), the same as the Chernobyl disaster. Hundreds of thousands of people were forced to evacuate from a 20-kilometre zone around the nuclear power plant.

The Sandoz chemical plant disaster in 1986, Switzerland is another large-scale industrial disaster with serious environmental consequences.

The cause of the powerful fire at the Sandoz chemical company's warehouse in Basel has not yet been definitively established, but it is known that it caused a large number of agrochemicals (pesticides, herbicides) and other chemicals, including mercury, to catch fire. During the firefighting operation, a significant portion of these toxic substances (about 30 tonnes) entered the Rhine River along with the water, turning it into a 'red river'.

Consequences. Mass death of aquatic life: Hundreds of thousands, and according to some estimates, millions of fish, eels and other aquatic organisms died in a 200-400 km stretch of the river. Some species disappeared completely.

Water intakes along the Rhine were forced to stop operating, causing water supply problems in many cities in Germany, the Netherlands and France located downstream.

Long-term impact on the ecosystem. The Rhine ecosystem suffered significant damage. It took years of effort and millions of euros to restore it.

Audio 5.2

ENVIRONMENTAL DISASTERS – Part 1

The Exxon Valdez tanker disaster (1989, Alaska (USA))

The disaster occurred when the Exxon Valdez supertanker ran aground on Blythe Reef in Prince William Sound. ExxonMobil incurred billions in losses to clean up the spill and pay compensation and fines. It was one of the most expensive environmental disaster clean-up operations in history.

Attempts to change the ship's course were made too late to avoid colliding with the reef. At the same time, the ship's radar was faulty, and Exxon did not provide additional equipment for navigation in difficult conditions. The ship's captain, Joseph Hazelwood, was not on the bridge while passing through the dangerous section of the strait, handing over control to the third mate, who was overtired. In addition, evidence suggests that the captain may have been under the influence of alcohol.

Consequences. Approximately 40.9 million litres (approximately 257,000 barrels) of crude oil spilled into Alaskan waters from the damaged tanker compartments. Although it was not the largest oil spill in the world in terms of volume, its consequences were catastrophic due to its location in an environmentally sensitive and inaccessible area.

The oil slick spread over 2,100 kilometres of coastline, including remote and untouched areas. Hundreds of thousands of seabirds, thousands of sea otters, hundreds of seals, whales, eagles and other animals were killed. The oil covered the feathers of birds and the fur of mammals, depriving them of insulation and the ability to swim or hunt.

Long-term impact on ecosystems: The region's ecosystems, especially the populations of some fish species (such as sturgeon), have not yet fully recovered. Oil remained in the soil and on the rocks for decades, continuing to slowly poison the environment.

The disaster contributed to the passage of the Oil Pollution Act of 1990 in the United States, which tightened regulations on oil transportation, required the use of double-hulled tankers, and established a fund for spill clean-up.

UNIT 6

Audio 6.1

MAN-MADE MOUNTAINS OF RUBBISH - Part 1

India. The Ghaziabad landfill (Delhi, India) covers an area of about 28 hectares (more than 50 football fields) and is almost as high as the iconic Taj Mahal. The Supreme Court of India ordered the installation of warning lights at the New Delhi landfill (!!!) to prevent planes from crashing into it.

Founded in 1984 on the outskirts of Ghaziabad, in the eastern part of Delhi, the landfill reached its maximum capacity in 2002, but since then it has turned into a mountain up to 72 metres high. Delhi produces more than 11,000 tonnes of waste every day, much of which ends up here, making the mountain of rubbish even bigger. It is already one of the largest landfills in the world, but it continues to receive hundreds of tonnes of waste from Delhi every day and is expected to grow even more.

In September 2017, more than 50 million tonnes of rubbish collapsed, burying dozens of people and cars, and in April 2024, a large fire broke out at the landfill, causing thick smoke that caused significant health and breathing problems for people living in the surrounding areas.

Ghana. According to UN estimates, more than 50 million tonnes of electronic waste are generated worldwide each year, and only about 25% of this amount is disposed of in accordance with environmental standards. One of the largest electronic waste dumps in the world is in Agbogbloshie, Ghana, where millions of tonnes of waste equipment are brought every year. Experts estimate that around 300 tonnes of gold, 16 million tonnes of iron and approximately two million tonnes of silver, aluminium and palladium are sent to the electronic waste dump every year.

People working at the electronics dump in Ghana extract valuable metals from discarded equipment and make a living by selling them. It turns out that 1 tonne of used electronics contains the same amount of gold as 18 tonnes of gold-bearing ore. However, this approach is extremely dangerous for the environment and human health. During combustion, vapours of lead, mercury and arsenic are released, which settle in the lungs: people constantly feel

nauseous and have headaches and suffer from insomnia. Most 'workers' do not even live to see their 30th birthday.

Audio 6.2

MAN-MADE MOUNTAINS OF RUBBISH - Part 2

Philippines. Almost in the very centre of the Philippine capital Manila stands a 100-metre-high mountain of rubbish. It smokes continuously: the compressed rubbish periodically catches fire. Officially, the landfill is considered inactive: the authorities closed it back in 1995 under pressure from the international community, and now people live there. In incredible, glaring poverty. They build huts out of rubbish, rummage through the rubbish in the hope of finding something useful and eat rubbish. They dig out furniture, kitchen utensils, and children's toys from piles of junk. They resell the most valuable items: in a day, they can earn up to 100 pesos (just over two dollars).

The Great Pacific Garbage Patch. In the largest ocean on the planet, between Asia and North America, there is a giant floating island of plastic debris. According to various estimates, its area ranges from 700,000 km² (approximately twice the size of Germany) to 15 million km² (more than the entire European continent).

Human carelessness has turned into a tragedy for marine life. Birds and whales are dying after mistaking pieces of plastic for food, and fish, seals, dolphins and turtles are dying after becoming entangled in pieces of nylon nets and polyethylene.

Chile. The Atacama Desert in northern Chile stretches from the Pacific to the Andes across a barren expanse of red-orange rock canyons and peaks. As one of the driest deserts on Earth, it is a bucket-list destination for stargazing tourists who come for some of the clearest views of the night sky. With its arid, rocky landscape so closely resembling Mars, the desert has even attracted the attention of NASA, which has tested rovers there. [26]

But the Atacama has also attained a less wondrous distinction as one of the world's fast-growing dumps of discarded clothes, thanks to the rapid mass

production of inexpensive attire known as fast fashion. The phenomenon has created so much waste that the UN calls it “an environmental and social emergency.” [26]

UNIT 7

Audio 7.1

R-STRATEGIES

While the circular economy was originally based on three principles (Reduce, Reuse, Recycle), experts have now expanded them to ten. These principles are arranged in order of priority: from the highest - Refuse - to the lowest - Recover.

These are R0 Refuse, R1 Rethink, R2 Reduce, R3 Reuse, R4 Repair, R5 Refurbish, R6 Remanufacture, R7 Repurpose, R8 Recycle and R9 Recover.

Studies show that the transition to a circular economy can bring significant economic benefits. The Ellen MacArthur Foundation estimates that by 2030, the circular economy could bring \$4.5 trillion to the global economy through innovation, reduced material costs, and the creation of new markets.

Audio 7.2

ELLEN'S STORY

The story of Ellen MacArthur is a vivid example of how extreme experiences can change the worldview and inspire global change. Ellen is a British yachtswoman who has gained worldwide fame not only for her sporting achievements, but also as one of the key figures in promoting the idea of a circular economy.

Born in 1976 in Derbyshire, UK, she has been a keen sailor since childhood and completed her first solo trip around the world at the age of 18. In 2005, she set a world record by sailing solo around the world in a yacht, completing the distance in 71 days, 14 hours, 18 minutes and 33 seconds.

It was during this extreme journey, alone in the ocean, that she realised that resources were limited. She had a limited amount of food, drinking water, fuel

and other supplies on the boat. She realised that she had to use these resources as efficiently as possible to survive. Every resource was valuable, and nothing could be wasted. She compared her closed system on the yacht to planet Earth, where resources are also finite, but humanity behaves as if they are infinite. This experience deeply affected Ellen and made her think about global issues. She gave up professional sports to dedicate her life to finding solutions to this problem.

In 2010, she founded the Ellen MacArthur Foundation, a non-profit organisation that has quickly become a global leader in promoting the circular economy.

UNIT 8

Audio 8.1

PARIS AGREEMENT

The Paris Agreement is a key global partnership to combat climate change, concluded in 2015. It unites almost all countries in the world to keep the global temperature rise within 2°C (and preferably 1.5°C) and requires them to regularly submit national emission reduction plans. [27]

The agreement, ratified by 147 of the 197 signatory countries, entered into force in 2016, demonstrating that countries are determined to fight climate change. Ukraine ratified the Paris Agreement on July 14, 2016, becoming one of the first European countries to do so. [27]

In fact, the world is still far from securing a safe climate future, as the vast majority of countries are not meeting their zero-emission targets and their Nationally Determined Contributions (NDCs).

Despite the fact that the United States was one of the initiators of the Paris Agreement, under Donald Trump's cadence, it is the second time it has announced its withdrawal from it (in 2017 and 2025). At the same time, the United States is currently the second largest source of greenhouse gas emissions in the world, as well as the second largest source of carbon dioxide

emissions per capita. In the international arena, this is a vivid example of a change in political priorities with the arrival of another political force. [27]

Audio 8.2

EUROPEAN GREEN DEAL

In order to achieve the goal of the Paris Agreement - to prevent the global temperature from rising by more than 1.5°C by the end of the century - and to implement the Sustainable Development Goals, the European Green Deal (EGD) was presented in the European Parliament on December 11, 2019, which approves the movement towards a climate-neutral European continent in 2050.

The European Green Deal is a roadmap of measures that will transform the European Union into an efficient, sustainable and competitive economy, define the means to transform Europe into the world's first climate-neutral continent by 2050, stimulating economic development, improving health and quality of life, and transforming climate and environmental challenges into opportunities in all EU sectors and policies, ensuring a fair and inclusive green transition.

The key areas of the European Green Deal (EGD) are clean energy, climate action, construction and renovation, sustainable industry, sustainable mobility, pollution reduction, biodiversity, and sustainable agricultural policy (the Farm to Table Strategy).

ANSWERS

Unit 1

Task 4

A autecology

B anthropogenic factors

C biosphere

D ecosystem

E environmental sustainability

F ecology

G population dynamics

H abiotic factors

I biosphere reserve

J synecology

K environmental tolerance

L biotic factors

M closed ecological system

N noosphere

O applied ecology

Task 5

1 True

2 False

3 True

4 False

5 True

6 False

7 True

Task 8

1 C

2 C

3 B

4 C

5 C

6 C

7 C

8 C

Task 9

1 True

2 False

3 True

4 False

5 True

6 False

7 True

8 False

9 True

10 False

Unit 2

Task 4

A. Biome

B. Biodiversity

C. biotope

- D. Ecosystem
- E. geoecosystem
- F. urban ecosystem
- G. Producers
- H. Invasive species
- I. Natural habitat

Task 5

- 1 True
- 2 False
- 3 True
- 4 False
- 5 True
- 6 True
- 7 False

Task 8

- 1 B
- 2 B
- 3 A
- 4 C
- 5 A
- 6 B
- 7 B

Task 9

- 1 True
- 2 False
- 3 True

4 False

5 True

6 True

7 True

Unit 3

Task 4

A. Fossil fuels

B. Anthropogenic emissions

C. Ocean acidification

D. Carbon neutrality

E. Mitigation

F. Climate refugees

G. Greenhouse gases

H. Sea level rise

I. The greenhouse effect

J. Earth's surface heat balance

Task 5

1 False

2 True

3 True

4 False

5 False

6 True

7 True

Task 8

1 B

2 B

3 D

4 B

5 B

6 B

Task 9

1 True

2 False

3 True

4 False

5 True

6 False

7 True

8 False

9 True

10 True

Unit 4

Task 4

A. Biocapacity

B. Water footprint

C. Carbon footprint

D. Resource consumption

E. Ecological deficit

F. Natural resource management

G. Ecological deficit

H. Overconsumption

I. Resource use

Task 5

1 False

2 True

3 False

4 True

5 True

6 False

7 True

Task 8

1 B

2 C

3 A

4 B

5 B

6 B

7 D

8 C

9 A

10 C

Task 9

1 False

2 True

3 False

4 True

5 True

6 True

7 True

- 8 False
- 9 True
- 10 False

Unit 5

Task 4

- A. Pollution
- B. Pollution prevention
- C. Anthropogenic pollution
- D. Pollutant
- E. source of pollution
- F. Xenobiotic
- G. Technogenic disasters
- H. Natural disasters
- I. Global environmental problems

Task 5

- 1 False
- 2 True
- 3 True
- 4 True
- 5 False

Task 8

- 1 C
- 2 C
- 3 B
- 4 C
- 5 B

- 6 C
- 7 B
- 8 B
- 9 C
- 10 B

Task 9

- 1 True
- 2 False
- 3 False
- 4 False
- 5 True
- 6 True
- 7 False
- 8 True
- 9 True
- 10 True

Unit 6

Task 4

- A. Waste
- B. Household waste
- C. Separate collection of waste
- D. Waste sorting
- E. Waste management
- F. Waste hierarchy
- G. Circular economy
- H. Unauthorised landfill
- I. Waste disposal facility

Task 5

1 True

2 True

3 False

4 False

5 True

6 True

7 False

Task 8

1 B

2 B

3 B

4 C

5 B

6 B

7 C

8 C

9 C

10 B

Task 9

1 True

2 True

3 False

4 True

5 True

6 False

- 7 True
- 8 False
- 9 False
- 10 True

Unit 7

Task 4

- A. circular economy
- B. green economy
- C. linear economy
- D. Three Pillars of Sustainability
- E. Sustainable Development Goals (SDGs)
- F. Closed-Loop Innovation (CLI)
- G. Environmental efficiency

Task 5

- 1 False
- 2 True
- 3 False
- 4 True
- 5 True
- 6 True
- 7 False

Task 8

- 1 B
- 2 C
- 3 D
- 4 C

5 A

Task 9

1 False

2 True

3 True

4 True

5 False

6 True

7 False

8 True

9 False

10 True

Unit 8

Task 4

A. Ozonosphere (ozone screen)

B. greenhouse effect

C. Ozone-depleting substances

D. CFCs chlorofluorocarbons

E. Greenhouse Gases

F. Climate neutrality

G. Nationally Determined Contributions

H. Biodiversity

I. Invasive species

Task 5

1 True

2 False

- 3 True
- 4 True
- 5 True
- 6 False
- 7 True

Task 8

- 1 B
- 2 C
- 3 D
- 4 C
- 5 A

Task 9

- 1 True
- 2 False
- 3 True
- 4 False
- 5 True
- 6 True
- 7 False
- 8 True
- 9 True
- 10 False

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