ENGLISH FOR GEODESISTS AND LAND SURVEYORS

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Навчальний посібник з дисципліни

«Іноземна мова за професійним спрямуванням (англійська)»

для здобувачів вищої освіти зі спеціальності

G18 «Геодезія та землеустрій»

Друге видання

Рекомендовано до друку рішенням вченої ради
Таврійського державного агротехнологічного університету
імені Дмитра Моторного
як навчальний посібник для здобувачів ступеня вищої освіти
«Бакалавр» зі спеціальності G18 «Геодезія та землеустрій»
у закладах вищої освіти III – IV рівня акредитації
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Навчальний посібник призначено для вивчення дисципліни «Іноземна мова за професійним спрямуванням» (англійська) здобувачами вищої освіти зі спеціальності G18 «Геодезія та землеустрій». Посібник створено з метою розвитку граматичних, лексичних та письмових навичок, практичних умінь та навичок розуміння професійно спрямованої літератури англійською мовою. Рекомендовано як для проведення аудиторної, так і для позааудиторної, самостійної роботи у закладах вищої та передвищої освіти.

Передмова

Навчальний посібник «English for Geodesists and Land Surveyors» призначено для вивчення дисципліни «Іноземна мова за професійним спрямуванням (англійська)» здобувачами вищої освіти спеціальності G18 «Геодезія та землеустрій».

Посібник створено з метою удосконалення набутих на першому етапі вивчення англійської мови граматичних, лексичних та письмових навичок студентів, розвитку практичних умінь та навичок іншомовного листування та розуміння професійно спрямованої літератури англійською мовою.

Навчальний посібник складається з восьми розділів та тридцяти двох підрозділів. Джерелом інформації стали сучасні матеріали, запропоновані провідними фахівцями з геодезії та землеустрою, у тому числі матеріали онлайн-видань та державних установ країн світу.

Тематика розділів охоплює широке коло актуальних питань — від основ геодезії, ГІС, GNSS та GPS-технологій до просторового планування, екологічного моніторингу, правових аспектів землеволодіння в Україні та світі, а також обладнання й технічного забезпечення фахової діяльності.

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

Автори посібника

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1 INTRODUCTION TO GEODESY AND LAND MANAGEMENT

SPEAKING

1. Do you know...

- what is the specific task of geodesy? land surveying?

- what is the purpose of geodesy? land surveying?

- what are the main application areas of geodesy? land surveying?

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

1. Geodesy measures the Earth's shape, size, and gravity field for accuracy in mapping.

2. The first known land survey was in ancient Egypt around 3000 BC.

3. The Earth's circumference is about 24,901 miles, a crucial measure in geodesy.

4. GPS technology relies on geodetic principles, providing accurate location data worldwide.

5. The geoid model helps determine how sea level varies across the Earth.

6. Land surveys have been used to resolve property disputes for centuries.

7. Geodetic measurements helped confirm Einstein's theory of general relativity in practice.

8. The length of one degree of latitude is about 69 miles, varying by location.

9. Ground-penetrating radar is a modern tool used in land surveying today.

10. In the U.S., the Public Land Survey System maps territories since the 1780s.

VOCABULARY

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

boundary	межа, кордон
conceptual model	концептуальна модель
coordinate system	система координат
Earth quadrant	земний квадрант
Geodesy	геодезія
Geodetic	геодезичний
geographic information system (GIS)	геоінформаційна система (ГІС)
geometrical geodesy	геометрична геодезія
global navigation satellite system (GNSS)	глобальна навігаційна супутникова система (ГНСС)
gravity field	гравітаційне поле
measurement	вимірювання
meridian arc	дуга меридіана
navigation	навігація
plate tectonics	тектоніка плит
polar axis	полярна вісь
positioning	позиціонування, визначення місцезнаходження
physical geodesy	фізична геодезія
satellite geodesy	супутникова геодезія
sea level	рівень моря
surveying	землеустрій

4. Match words with their definitions

1. earth quadrant	*2. polar axis*	*3. geodesy*
4. meridian arc	*5. conceptual model*	*6. coordinate system*
7. gravity field	*8. geographic information system*	*9. plate tectonics*
	10. surveying	

a. one of the four sections into which the Earth is divided by its equator and prime meridian.

b. the practice of measuring land to determine distances, angles, and elevations for mapping purposes.

c. the science of measuring and understanding Earth's shape, size, and gravitational field.

d. a method for identifying the position of points in space using numbers, often on a grid.

e. the area around a mass where other objects are attracted towards it due to gravity.

f. a computer system used to collect, store, analyse, and display geographical data.

g. an imaginary line that passes through the North and South Poles, around which the Earth rotates.

h. a simplified representation of an idea or system that helps to understand how it works.

i. a segment of a line that runs from the North Pole to the South Pole, used in mapping and surveying.

j. the theory explaining how large sections of the Earth's surface move and interact with each other.

5. Rewrite the sentences using words in the box

conceptual model, coordinate system, Earth quadrant, geodesy, geodetic, polar axis, geographic information system (GIS), geometrical geodesy, gravity field, sea level, global navigation satellite system (GNSS), physical geodesy, satellite geodesy, meridian arc

1. The theoretical framework was complex but essential.

_____

2. The map used a grid to plot locations accurately.

_____

3. They studied the specific section of the globe for their research.

_____

4. The science of measuring the Earth's shape and size is fascinating.

_____

5. They conducted precise measurements for their land survey.

_____

6. The system helped them analyse spatial data efficiently.

_____

7. The study focused on the mathematical aspects of Earth's shape.

_____

8. The technology improved the accuracy of their navigation.

_____

9. They created a map representing variations in the Earth's pull.

_____

10. The distance between two points on the Earth's surface was measured.

_____

11. The line around which the Earth rotates is crucial in astronomy.

_____

12. The branch of science dealing with Earth's physical properties was their focus.

_____

13. They used satellites to gather data about the Earth's surface.

_____

14. The average height of the ocean's surface was used as a reference point.

_____

READING

6. Read the texts and mark the statements as True (T) or False (F).

What Is Geodesy?

Geodesy is the measurement and observation of the Earth's size, shape, and movement. Geodesists establish accurate positions on the Earth and create a system to delineate these points. Imagine setting pins in a model of the Earth and giving an address to each of them — that is essentially what geodesists do. They study the height, angles, and distance between different points to develop a system that can be used by humans for mapping, construction, and navigation.

This is a very important system to build roads, bridges, and other buildings. For example, while building a bridge, the engineers ought to know exactly where to start on both sides of a river. Without the accurate measurements, the bridge will not connect well at the center.

Geodesy is gaining more importance because of the dependence of contemporary society on positioning and navigation. Geodesy is utilized by the transport industry, for example, to make transportation safer and more efficient. Without it, planes would not arrive at the right destination, and ships would lose their way. By providing accurate information, geodesy helps companies save time and reduce costs by offering the shortest and safest routes for planes and ships, saving on fuel costs.

Geodesy is also helping scientists to find out the Earth's changes with the passage of time. Geologists, oceanographers, meteorologists, and paleontologists quantify the movement of the Earth's surface by a fraction with the assistance of geodesy. The system is so efficient that scientists can see the change of even a few centimeters.

Earth's surface is not fixed. Every day, ground goes up and comes down around 30 centimeters (one foot) because of the moon's and sun's gravity. Earth's surface, the crust, is shaped into large tectonic plates. Tectonic plates ride on the molten layer of rocks called magma, and these slowly move.

Plate tectonics is the investigation of how these plates move and interact with each other. This informs us about natural hazards like earthquakes and volcanoes. Smaller processes, such as erosion and storms, also modify the Earth's surface over time. Geodesy helps scientists measure exactly where and how much the Earth is changing.

What Is Surveying?

Surveying involves measuring and calculating the exact position of points on, above, or below ground level. Surveys measure distance, direction, and height that are noted down by surveyors to create construction project maps and plans.

Two major surveying measurements are:

Linear measurement – measures between points.

Angular measurement – measures angle and direction between points.

Geodetic Equipment in Civil Construction

Surveyors use a range of instruments in their work, including:

- Chains
- Theodolites
- Dumpy levels
- Cross-staffs
- Plane tables
- Ranging rods
- Measuring tapes

Surveying is necessary for many activities, including:

Construction work – Engineers need surveying to plan and design roads, bridges, and buildings.

Land measurement – Surveyors help determine boundaries for states and countries.

Mapping – Surveying helps create topographic maps that mark land features.

Marine navigation – Geodetic surveying is used to create maps for ships and ocean travel.

Environmental studies – Geodetic surveys are employed by scientists to study the Earth's surface changes over a period of time.

Surveying helps engineers, scientists, and corporations work with accurate data. It enhances construction efficiency and safety as well as contributes to research in the Earth's natural changes.

1. Geodesy studies the size, shape, and movement of the Earth.	*T*
2. Without geodesy, bridges might not connect properly in the middle.	
3. The transport industry does not rely on geodesy.	
4. Geodesy helps scientists measure small movements of the Earth's surface.	
5. The Earth's surface moves up and down by about 30 centimeters every year	
6. Surveying only measures the height of land.	
7. Surveying is important for creating maps and planning construction projects.	
8. Surveying only uses modern digital equipment.	
9. Surveying is only used in construction and has no scientific purpose.	
10. Surveying can be used to create maps of the ocean floor.	

7. Read the texts again and answer the questions.

1. What is geodesy?

2. Why is geodesy important?

3. Who use geodesy to understand physical processes on, above, and within the Earth?

4. What is plate tectonics?

5. What is surveying?

6. What kinds of measurements are there?

7. What surveying equipment do you know?

8. Why is surveying important?

LISTENING

8. Look at the picture and listen to the audio 1.1. How is geodesy connected to other scientific disciplines?
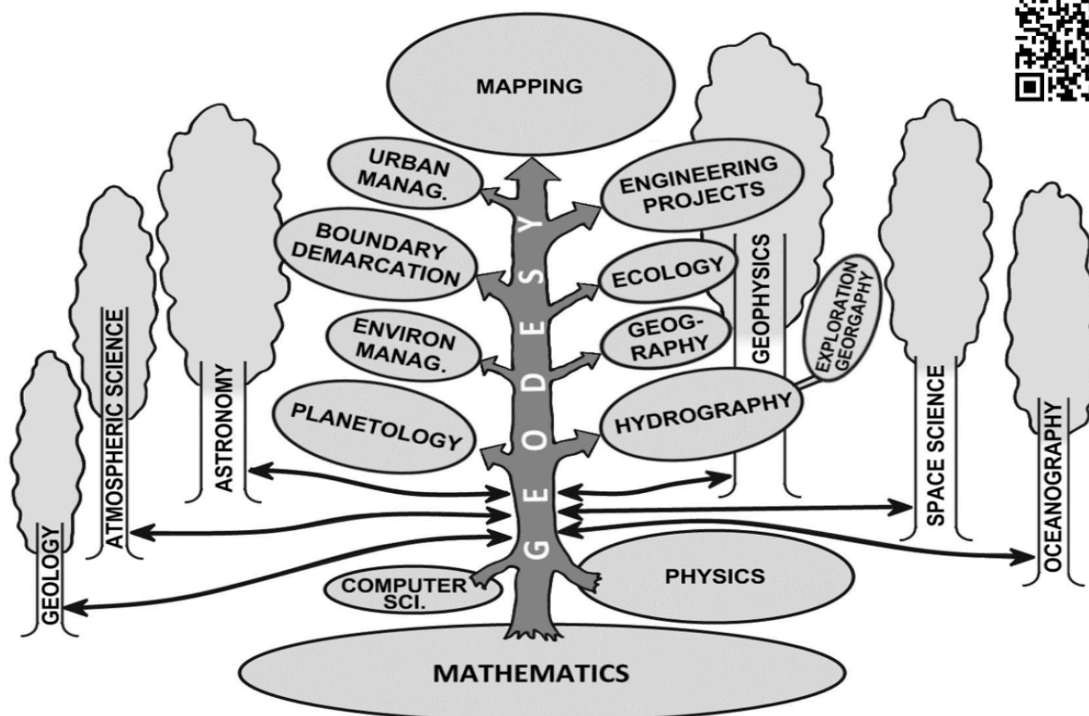
9. Listen to the audio 1.1 again and choose the correct answer (A, B, C or D).

1. According to the audio, what best describes the relationship between geodesy and other sciences?

A Competitive and distant

B Symbiotic and collaborative

C Completely independent

D Mutually exclusive

2 Which science is mentioned as having the closest collaboration with geodesy?

A Astronomy

B Oceanography

C Geophysics

D Geology

3 What role do mathematics, physics, and computer science play in geodesy?

A They are unrelated to geodesy

B They form the theoretical foundations

C They are minor supporting disciplines

D They compete with geodetic science

4 How does the text describe the boundary between geodesy and geophysics?

A Clearly defined

B Completely separate

C Quite blurred

D Entirely distinct

5 What does the text suggest about the study of gravity fields?

A They are exclusively studied by geophysicists

B Global gravity fields belong to geodesy

C Local gravity fields belong to exploration geophysics

D Gravity fields are not important in either science

6 Which sciences are mentioned as having weaker relations with geodesy?

A Only astronomy

B Space science and oceanography

C Geology and atmospheric sciences

D Astronomy and space science

7 What is implied about the interaction between different scientific disciplines in the text?

A Sciences work in complete isolation

B Disciplines have no overlap

C Scientific fields can have interconnected relationships

D Only exact sciences interact

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

1. What are the three main properties of Earth that geodesy is concerned with measuring?

2. How do high-precision GPS instruments help scientists detect changes to Earth's major features?

3. How can monitoring ground deformation in active volcanic zones help scientists understand the complex plumbing below and potentially forecast volcanic eruptions?

4. How can geodesy be used to monitor drought progression and recovery?

5. In what ways can geodesy and satellite measurements aid in the response to devastating earthquakes?

6. How can geodesy and remote sensing technology be used to detect and respond to oil spills?

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

1. Geodesy is the study of Earth's shape, orientation in space, and gravity field.	
2. The properties measured in geodesy remain constant over time.	
3. High-precision GPS instruments can detect millimeter-scale movements of Earth's major features.	
4. Volcanoes remain unchanged before eruptions, making it impossible to predict them.	
5. Monitoring ground deformation in volcanic zones helps scientists understand underground magma movement.	
6. Droughts have no impact on the movement of Earth's surface.	
7. The Sierra Nevada mountain range can grow and shrink by several millimeters due to water changes.	
8. Geodesy and remote sensing can help assess earthquake damage and prioritize aid delivery.	
9. Satellite data cannot be used to detect oil spills.	
10. Geodesy can help locate oil spills and guide clean-up efforts using GPS and remote sensing.	

WRITING

12. Think about the following:

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

13. 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.

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

14. Write an opinion essay on topic "The Impact of geodesy and land surveying on everyday life" (100 – 150 words).

2 HISTORY OF GEODESY AND LAND MANAGEMENT

SPEAKING

1. Do you know...

- what is cartography?

- is it still important?

- what does a cartographer do?

- do cartographers still exist?

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

1. Geodesy studies the Earth's shape, size, and gravitational field since ancient times.

2. The term "geodesy" comes from the Greek word meaning "to divide the Earth."

3. The first accurate measurement of the Earth was done in 240 BC by Eratosthenes.

4. In the 19th century, triangulation became key for mapping land accurately.

5. The International Association of Geodesy was established in 1862 in Paris.

6. GPS technology relies heavily on principles developed in geodesy over centuries.

7. Land management began in Neolithic times when agriculture changed people's needs.

8. The Domesday Book, created in 1086, improved land ownership records in England.

9. Modern land management aims to balance economic, social, and environmental factors.

10. Geospatial technology helps manage land resources more efficiently today than ever before.

VOCABULARY

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

accurate	точний
calculation	обчислення
cartographer	картограф
cartography	картографія
circumference	окружність, довжина кола
geographic information system (GIS)	геоінформаційна система (ГІС)
latitude	широта
longtitude	довгота
mapmaking	картографія
meridian	меридіан
map projection	картографічна проекція
parallel	паралель
sphere	сфера
spherical shape	сферична форма

4. Match words with their definitions

1. sphere	*2. spherical shape*	*3. cartography*	*4. cartographer*
5. parallel	*6. mapmaking*	*7. calculation*	*8. GIS*
9. map projection	*10. latitude*	*11. accurate*	*12. meridian*
13. circumference	*14. longitude*		

a. a computer system that captures, stores, analyses, and displays geographical data.

b. a method of representing the curved surface of the Earth on a flat map, which can distort shapes and sizes.

c. a three-dimensional shape that is perfectly round, like a ball, with all points on the surface equally distant from the centre.

d. correct and free from mistakes, providing a true representation of facts or measurements.

e. the act of creating maps, involving planning and drawing various elements accurately.

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f. the measurement of how far east or west a location is from the Prime Meridian, also given in degrees.

g. a form that resembles a sphere, having no edges or corners and being uniformly rounded.

h. the distance around a circle or round object, measured along its edge.

i. the measurement of how far north or south a place is from the equator, expressed in degrees.

j. the process of using numbers to find an answer or solve a problem.

k. an imaginary line on the Earth's surface running from the North Pole to the South Pole, used for measuring longitude.

l. the art and science of making maps, including designing and producing them.

m. a person who creates maps, showing different features of land and places.

n. lines on a map that run alongside each other at equal distances, often used to indicate latitude.

5. Read the text and fill in the gaps using words in the box

> *accurate, cartographer, cartography, geographic information system (GIS), latitude, longtitude , mapmaking, map projection, spherical shape*

There was a time when people thought the earth was flat, but now we know it has a **1** _____. This idea has led to the development of many fields, like **2** _____ — the art of **3** _____. A person who creates maps is known as a **4** _____. They use complex tools and techniques to represent the earth's surface on a flat plane. A challenging part of this is **5** _____, which is the method used to show our round earth on a flat surface.

One important tool used in modern mapmaking is the **6** _____. This system allows cartographers to gather and analyse data to make more **7** _____ maps. GIS incorporates data like **8** _____ and **9** _____, which help in pinpointing exact locations on the map. These coordinates are essential for navigation and determining your position on the earth's surface.

READING

6. Read the texts and mark the statements as True (T) or False (F).

A Brief History of Cartography

Humans have been creating maps since prehistoric times. Early cave paintings and carvings on bones were likely maps of hunting areas, rivers, and even the stars. One of the oldest known maps, a 9-foot wall painting from Anatolia, dates back to 6100-6300 BC, showing a town plan with buildings and a volcano. Ancient Egyptians also made maps, though few survived due to the fragile nature of papyrus.

Ancient Cartography and Mapmaking

Greek scholars played a major role in the development of cartography. Anaximander created one of the first world maps, and Pythagoras suggested the Earth was spherical. Eratosthenes, in the 3rd century BC, accurately estimated Earth's circumference. Ptolemy's Geographica (c. 150 AD) introduced a system of latitude and longitude, influencing mapmaking for centuries. Though his original maps were lost, medieval cartographers recreated them.

Roman and Medieval Maps

During the Roman Empire, maps served practical purposes such as military planning and administration. Roman cartography focused on roads, cities, and trade routes, especially around the Mediterranean.

In the Middle Ages, Muslim scholars like Al-Idrisi expanded on Ptolemy's work, refining measurements and creating detailed world maps. His Tabula Rogeriana (1154) provided extensive geographic and cultural descriptions. European medieval maps, like the Hereford Mappa Mundi (c. 1300), were often symbolic, depicting religious themes rather than accurate geography.

The Renaissance and Early Modern Cartography

The invention of the printing press in the 15th century revolutionized mapmaking. The Fra Mauro Map (1450) was one of the most detailed medieval maps, while explorers like Juan de la Cosa charted the Americas.

Gerardus Mercator's 1569 projection solved the problem of representing the spherical Earth on a flat surface, allowing sailors to navigate more easily. Abraham Ortelius' Theatrum Orbis Terrarum (1570) was the first modern atlas, compiling maps with the latest geographic knowledge.

Cartography from the 17th to 19th Century

By the 17th century, European cartographers improved map accuracy using telescopes and triangulation. Matteo Ricci's Ricci Map (1602) was the first Chinese map to include the Americas. In 1740, Matthias Seutter introduced the Vertical Perspective projection, similar to today's Google Earth view.

The 19th century saw rapid advancements in travel and trade, increasing the demand for detailed, practical maps. Railroads expanded worldwide, and cartographers focused on producing accurate and up-to-date maps for travelers and merchants.

The Evolution of Modern Maps

The Industrial Revolution and global exploration further advanced cartography. Large decorative maps became less common, replaced by smaller, more precise maps used for navigation and urban planning. Today, digital maps, GPS, and satellite imagery provide highly detailed geographic data, continuing the legacy of centuries of cartographic development.

1. The oldest known map is a cave painting depicting hunting areas.	*T*
2. The Anatolian town plan from 6100-6300 BC is considered the first recorded map.	
3. Papyrus was a durable material, so many Egyptian maps have survived.	
4. Pythagoras was the first person to draw a map of the known world.	
5. Roman maps were mainly used for artistic purposes.	
6. Ptolemy's work introduced the system of latitude and longitude.	
7. The Hereford Mappa Mundi is one of the largest surviving medieval world maps.	

8. Fra Mauro's world map was unique because it placed north at the top.	
9. The Mercator projection was developed to improve navigation at sea.	
10. The Industrial Revolution had no effect on the development of cartography.	

7. Read the texts again and answer the questions.

1. What is cartography?

2. Why was the Ptolemy's map so valuable?

3. What does the term "Mappa mundi" mean?

4. Who created Tabula Rogeriana and when?

5. What was specific in Mercator's maps?

6. What map was the first to be published in an atlas?

7. What technology is modern cartography based on?

8. Complete the sentences with following words. Use each word or phrase only once.

cartographers, meridians, spherical shape,
map projections, cartography, GIS, parallels

1. Today is the transfer of _____ and _____ software applications to mobile devices.

2. _____ had to respond to the increasing demand of that middle class.

3. There were also numerous studies and methodologies to draw a system of _____ and _____.

4. The problem inherent in representing a _____ on a flat plane is that things tend to get distorted.

5. Many other _____ were soon developed.

LISTENING

9. Look at the picture and listen to the audio 2.1.

How did Toscanelli's ideas influence Christopher Columbus, and how did Columbus interpret his calculations?

What role did Toscanelli's map and letters play in shaping European perceptions of the world before the Age of Discovery?
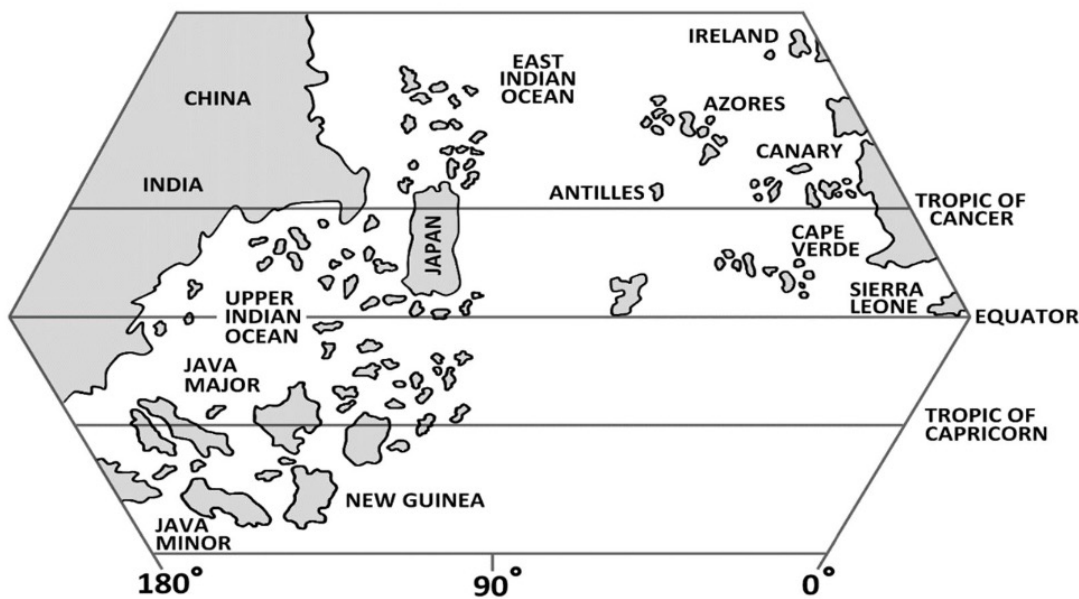
Toscanelli's view of the Western Hemisphere

10. Listen to the audio 2.1 again and complete the table. Try to mention as many as possible.

Scientist	Geodetic accomplishments
Thales of Miletus, Anaximander of Miletus and the school of Pythagoras	The first firmly documented ideas about geodesy

11. Listen to the audio 2.2 and answer the questions.

1. Why is modern cartography still relevant today?

2. How has the number of cartography students changed in the past decade?

3. What role does technology play in modern cartography?

4. How do rideshare apps like Uber and Lyft rely on modern cartography?

5. What are some of the tools that modern cartographers use?

12. Listen to the audio 2.2 again and match the halves of the sentences.

1. Modern cartography might seem like a contradiction	a) related to it improve as well.
2. Modern cartography influences our lives in ways	b) that enhance the accuracy of traditional maps.
3. As technology improves, cartography and the tools	c) that probably don't seem obvious to most of us.
4. Modern cartography has led to the creation of numerous digital tools	d) to plan where to build new schools and libraries.
5. Information from the accessibility index can be used	e) when considering the historical origins of cartography and traditional map-making.

WRITING

13. 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.*

14. 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.) [16]

15. Read the following blog post and write a comment.

Is surveying a dying profession?

The future of the surveying profession is an issue that has been lingering for many years. Recently, the concern has been growing wider and louder among surveyors. Some surveyors contend that the surveying profession, in its current form, is heading towards extinction.

Technology will enable lay persons to produce accurate maps and obtain/process spatial data with ease. The days of the surveyor being a glorified equipment operator are gone and so is the profession.

Cadastral surveyors will be replaced by advanced GPS technology with supporting ground infrastructure. Hand drawn maps are no longer an issue when you can map the world with a push of a button and capture millions of data points with ease in digital format.

Goodbye Surveyors.

In your blog comment you should:
- outline your opinion on the topic
- explain why do you think surveying has (doesn't have) future
- make some examples

16. Imagine that you are a blogger. Your task is to write a blog (100 - 150 words) on one of the provided topics:

- Is cartography dying?
- Is there a place for cartographer in modern world?
- Do we need cartographers today?

3 LAND SURVEYING TECHNIQUES AND EQUIPMENT

SPEAKING

1. Do you know...

- what surveying equipment do you know?

- have you ever used it?

- what are they used for?

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

1. The oldest known survey tool is the measuring rod from ancient Egypt.

2. Total stations combine the functions of a theodolite and an electronic distance measurement.

3. GPS technology has revolutionised land surveying since the 1980s.

4. Leica Geosystems was founded in 1819, making it one of the oldest survey equipment brands.

5. The earliest maps were made over 25,000 years ago by prehistoric humans.

6. A total station can measure distances up to 1,600 metres with high accuracy.

7. Unmanned aerial vehicles (UAVs) are now used for high-resolution land survey mapping.

8. Surveyors need precise knowledge of angles, distances, and elevations for accurate results.

9. Land surveys can determine property boundaries, which helps avoid disputes between owners.

10. The Global Positioning System (GPS) operates with 31 satellites orbiting Earth today.

VOCABULARY

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

auto level	автоматичний нівелір
chain	ланцюг
compass	компас
direction	напрямок
drone	безпілотник
dumpy level	глухий нівелір
electronic level	цифровий нівелір
equipment	обладнання
expertise	досвід, вміння
global positioning system (GPS)	система глобального позиціонування
hand level	ручний рівень
horizontal accuracy	точність по горизонталі
horizontal angle	горизонтальний кут
latitude	широта
laser measuring system	лазерна вимірювальна система
lay down boundaries	встановлення кордонів
measuring tape	вимірювальна рулетка
point cloud	хмара точок
safety vest	захисний жилет
solar compass	сонячний компас
theodolite	теодоліт
total station	тахеометр
tripod stand	штатив, тринога
vertical angle	вертикальний кут

4. Match words with their definitions

1. theodolite	7. tripod stand	13. chain
2. solar compass	8. laser measuring system	14. safety vest
3. drone	9. global positioning system	15. auto level
4. latitude	10. total station	16. hand level
5. measuring tape	11. compass	17. horizontal angle
6. electronic level	12. vertical angle	

a. a small, portable tool that helps check if a surface is horizontal or vertical by using a bubble in liquid.

b. a navigation tool that uses the position of the sun to determine directions during daylight.

c. a precision instrument used for measuring angles in horizontal and vertical planes, mainly in surveying.

d. a three-legged support used to hold equipment steady, such as cameras or surveying instruments.

e. a technology that uses satellites to pinpoint your exact location on Earth.

f. a flexible ruler made of cloth, plastic, or metal used to measure length or distance.

g. the distance north or south of the equator, measured in degrees, which helps identify locations on a map.

h. a flying device controlled remotely, often used for capturing images or gathering information from above.

i. the measure of the angle between two points on the same level, usually expressed in degrees.

j. a modern tool that uses electronic sensors to determine if a surface is flat or at a specific angle.

k. a series of connected metal links used for pulling or securing objects, often found in construction and measurement tasks.

l. a tool used in surveying that automatically adjusts to provide a level line for measuring heights.

m. the measure of the angle formed when looking up or down from a horizontal line, typically given in degrees.

n. an instrument with a magnetic needle that shows the direction of north, helping people find their way.

o. an advanced surveying tool that combines a theodolite with an electronic distance meter for accurate measurements.

p. a device that uses laser beams to accurately measure distances over long ranges.

q. a brightly coloured garment worn to make someone visible, especially in work environments for safety reasons.

5. Complete the sentences using words in the box

total station, drones, tripod, hand level, 3D scanner, theodolite, electronic level

1. _____ provides sturdy support for precision land surveying instruments.

2. _____ is an instrument for measuring both horizontal and vertical angles.

3. _____ fulfills the need for applications like land surveying or general construction layout.

4. The _____ is a complex equipment used for surveying.

5. _____ are operated with the help of specially designed computer software.

6. _____ covers many construction applications as it automatically determines your delta height.

7. _____ gives a quick and easy way when dealing with cut and fill when grading a site for construction.

READING

6. Read the texts and mark the statements as True (T) or False (F).

Types of Surveying Equipment

Surveying employs different types of geodetic tools to precisely measure angles, distances, and height. The undermentioned are some of the most common used tools.

Measuring Tape

Measuring tape is made from materials such as cotton, coated linen, metal, or steel. It comes equipped with units such as centimeters and decimeters for measurements.

Steel tapes are usually kept in a metal or leather protective case with a winding device. Although they are thin and should be handled with care, they are stronger and more accurate than other tapes.

Peg

Pegs are short wooden pointers used to mark points on the ground, e.g., survey ends. They measure 2,5-3 cm² in cross-section and 15 cm in length, and are one pointed end so that they can easily be driven into the ground. They are hammered into place.

Ranging Rods

Ranging rods are used for pointing locations along a survey line. They are 2-3-meter-long rods with alternate-colored stripes, usually white and black or red and white, each measuring 20 cm wide.

Made of seasoned timber, the rods are octagonal or circular in cross-section with a diameter of about 3 cm. For greater distances than 200 meters, a red, yellow, or white flag is fixed at the top to increase visibility.

Theodolite

The theodolite is the most precise instrument used to measure horizontal and vertical angles. It is widely used in survey work.

There are two main forms:

Transit theodolite: It allows the telescope to rotate through 180° in the vertical plane.

Non-transit theodolite: This version is obsolete today and no longer in common practice.

A theodolite may be applied for:

- Establishing magnetic bearings of a line

- Establishing direct and deflection angles

- Extending and aligning straight lines

- Determining the point of intersection between two lines

- Setting out angles by repetition and horizontal angles

- Determining grades and elevation difference

- Setting out curves in construction and road construction

Total Station

A Total Station (TS) is a highly advanced electronic device that combines a transit theodolite and an Electronic Distance Meter (EDM). It allows surveyors to measure both distances and angles at the same time.

A Total Station measures:

Horizontal angles – The rotation of the optical axis of the instrument from the north direction in a horizontal plane.

Vertical angles – The tilting of the optical axis of the instrument from the local vertical.

Slope distances – The distance from the target to the Total Station.

There are also Total Stations that have built-in electronic data storage, where users can store and transfer survey data into a computer for analysis.

Levelling Staff

A levelling staff is a graduated rod whose zero end is at the bottom. It finds difference in height between two points by ascertaining whether a station is higher or lower than line of sight.

1. Ranging rods are used to mark out the locations on the ground at terminal points or the end of the survey line.	
2. Ranging rods are made of well-seasoned timber.	
3. Non-transit theodolites are widely used these days.	
4. Measuring tape is used for setting out an angle by repetition.	
5. Total station is an electronic transit theodolite with an electronic distance meter (EDM).	

6. Levelling staff helps in determining how much above or below is the station from the line of sight.	
7. A theodolite cannot help with establishing magnetic bearings of a line.	
8. Ranging rods are 3-5-meter-long rods with alternate-colored stripes.	
9. A theodolite determines grades and elevation difference.	
10. Pegs are short wooden pointers used to mark points on the ground.	

7. Read the texts and answer the questions.

Surveying Tripods

Tripods give firm support to accurate surveying tools such as total stations, robotic systems, laser levels, theodolites, and transit levels. They may be constructed of wood, fiberglass, composite materials, aluminum, or wood and fiberglass.

The most stable tripods are constructed of wood since they do not expand at all when exposed to the sun. They also possess good vibration absorption, making them ideal for high-accuracy measurements.

Light and fully waterproof aluminum tripods allow easy transportation, but they tend to expand with temperature fluctuation, so are best suited to short setup time (one or two hours) to guarantee accuracy.

Fiberglass tripods are very durable and environmentally resistant. They are strong and capable enough for long setups, though they may experience some flexure after a while. Due to their flexibility and strength, fiberglass tripods are commonly regarded as a convenient choice for numerous surveying applications.

3D Scanners

A 3D scanner is a technologically advanced surveying instrument that captures the shape and contours of an object without contacting it. It scans the object by illuminating it with laser light and reading information in the form of point clouds, which construct a digital 3D model on the computer screen.

3D laser scanning is one of the most accurate surveying methods. However, it does require experienced personnel to scan with the scanner and convert point cloud data into 3D CAD models if needed.

The main advantages of 3D scanners are:

- Non-contact and non-destructive measurement process

- Very accurate and detailed outcome

- Efficient time method for capturing complicated surfaces

Drones in Surveying

Drones, or unmanned aerial vehicles (UAVs), are used in surveying when surveying big areas where it would be too time-consuming to do it manually. They are remotely controlled from the ground and fly on special software that charts out flight routes and altitude.

In usage, drones capture high-resolution topographic images and transmit them to a computer for analysis and measurement. Survey software translates the information into accurate land maps and models.

Drones are also used frequently because they:

- Reduce the requirement for human labor in large surveys

- Provide rapid and precise aerial data

- Increase efficiency in land measurement and analysis

1. What are the main materials used to make surveying tripods?
2. Why are aluminum tripods only recommended for short-term setups?
3. How does a 3D scanner create a digital model of an object?
4. What are the advantages of using drones in surveying?
5. Why do 3D scanners require trained professionals to operate them?

8. Read the texts again and fill in the table.

Surveying tool	Specific characteristics	Usage
Measuring Tape	It is made up of cotton, coated linen, metal, steel or any other synthetic material	To measure the distance

LISTENING

9. Look at the picture and listen to the audio 3.1.

What were some of the most important geodetic instruments used in ancient civilizations, and how did they contribute to the development of surveying and mapping techniques?

10. Listen to the audio 3.1 again and answer the questions.

1. What was the purpose of land surveying in ancient times?

2. How was distance measured between two points using old surveying equipment?

3. What was the function of a solar compass in land surveying?

4. How did a theodolite improve the accuracy of surveying compared to earlier tools?

5. What are the different types of leveling instruments mentioned in the text?

11. Listen to the audio 3.2 and mark the sentences as True (T) or False (F).

1. The tripod legs have to be placed firmly in the ground.	
2. We don't have to use the levelling screws to level it on the dome top.	
3. We bring the bubble adjacent to the centre of the circle.	
4. The automatic level isn't a sensitive piece of equipment which doesn't need to be cared for.	
5. When setting up the level, ideally you will set it up at eye-height.	
6. When moving around the instrument, you should place pressure or put your weight on the tripod legs.	

12. Listen to the audio 3.2 again and fill in the gaps.

setup, components, types, level, tripod, automatic

The automatic **1** _____ is one levelling instrument used on a building site. And there's basically three **2** _____ in its use. There's the automatic level itself, the **3** _____ on which it sits, and when we take a reading, that's to the staff.

I'm now going to demonstrate the **4** _____ of the level and first we're going to place the tripod.

Tripods come in two **5** _____. Firstly, there's this one, the dome top. And there's also a flat top. With the **6** _____ level, we generally use a dome top tripod.

WRITING

13. 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.*

14. 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 amateur or expert? This will determine the language and level of detail 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 an installation and use guide to the XYZ Instrument, which is designed for the accurate measurement of distances and angles."

4. Safety Precautions

Declare any risk and safety guidance connected with handling the instrument.

Example: "Always secure the instrument firmly on a stable surface to prevent accidents. Never look directly into the laser when powered."

5. Instrument Overview

Describe the components and functions of the instrument. Provide labeled diagrams or photos where necessary.

Example: "The instrument has the following components: A) Main body, B) Lens, C) Battery compartment, etc."

6. Setup Instructions

Provide instructions on how to assemble the instrument or prepare it for operation.

Divide the steps into concise, easy-to-understand instructions. Use bullet points or step-by-step numbers.

Example:

Remove the instrument from the box.

Assemble the tripod by aligning the screws with the particular slots.

Insert the batteries into the compartment.

Turn on the device using the power button.

7. How to Use

Provide step-by-step, detailed instructions on how to use the instrument.

Refer to common use situations and practical tips.

Example:

"To measure the angle, first position the instrument with the base on the ground. Then, use the horizontal and vertical controls to set to the desired position."

8. Maintenance & Care

Include directions for cleaning and storing the instrument so that it is in good working condition.

Example: "Clean the lens with a soft, dry cloth. Do not use harsh chemicals that could damage the surface."

9. Troubleshooting

Provide solutions to common problems users would encounter.

Example: "If the instrument is not booting, check battery level. If the problem persists, call support."

10. Technical Specifications

Provide description of how the instrument works, its capacity and capabilities.

Example: "Range: 0-100 meters; Accuracy: ±0.1mm; Power source: 2 AA batteries."

11. FAQs

Insert a section with answers to some of the questions that users would ask once they are puzzled about what is occurring or how the product usually works.

12. Contact Information

Provide a way for users to contact support in case they need further assistance.

Example: "For support, please visit our website or contact our customer service at support@xyz.com."

13. Review & Test

After writing the manual, review it for clarity and accuracy. Ensure that the instructions are easy to understand and that the technical information is correct.

Test the instructions by having someone unfamiliar with the instrument follow them.

15. Write your own manual for any land surveying instrument (100 - 150 words):

•   Use short sentences and short paragraphs.

•   Arrange your points in logical order.

•   Make your statements specific.

•   Use the imperative mood.

4 TERRAIN AND TYPICAL LANDFORMS

SPEAKING

1. Do you know...

- what do you know about different landforms?

- how do natural processes affect landforms?

- what types of landforms are common in your area?

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

1. Earth's tallest mountain, Mount Everest, rises 8,848 metres above sea level.

2. The Grand Canyon is 277 miles long and over a million years old.

3. Australia's Great Barrier Reef is the largest coral reef system in the world.

4. The Dead Sea is 430 metres below sea level, making it the lowest point on land.

5. The Sahara Desert covers 9,2 million square kilometres, almost the size of the USA.

6. Volcanic eruptions can create new islands, like Surtsey off Iceland in 1963.

7. Glaciers store about 69% of the world's fresh water, impacting sea levels.

8. The Amazon Rainforest produces over 20% of the world's oxygen supply.

9. Some landslides move over 100 million tonnes of rock and soil in seconds.

10. The Himalayas are still rising; they grow about 5 millimetres each year.

VOCABULARY

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

concave	увігнутий
convex	опуклий
depression	западина
ditch	рів
elevation	підвищення
hollow	улоговина
hydrography	гідрографія
irregularities	нерівності
peak	пік
plateau	плато
relief	рельєф
ridge	хребет
saddle	сідловина
shrub	чагарник
slope	схил
sole	підошва
spillway	водоскид
terrain	рельєф
vegetation	рослинність
viscous soil	в'язкий ґрунт
watershed	вододіл

4. Complete the text using words from the box

> *spillway, peak, plateau, terrain, irregularities, relief, elevations, ditch, ridge, depressions, hollow*

The **1** _____ was marked by deep **2** _____ and **3** _____, making travel difficult. A narrow **4** _____ stretched across the landscape, leading to a **5** _____ that offered a breathtaking view. Below, a vast **6**_____ extended toward the horizon, its surface gently sloping downward.

In the distance, a **7** _____ formed by erosion lay hidden between hills. A **8** _____ cut through the land, directing water from higher **9** _____ to lower ground. The sole path through the rugged **10**_____ wound around the hills, avoiding the steepest inclines. Near the **11**_____ carved by rain, the ground showed signs of instability. Despite the challenges, the diverse landscape held a raw, untamed beauty.

5. Match words with their definitions

1. hollow	a. an area of land where all the water drains into a specific river or lake.
2. shrub	b. a state of feeling very sad or low, often for a long time.
3. peak	c. a narrow channel dug in the ground to carry water away from an area.
4. depression	
5. ditch	d. a flat area of land that is higher than the surrounding land.
6. slope	e. all the plants and trees in a particular area, especially those growing naturally.
7. vegetation	
8. watershed	f. the height of a place above sea level, often used to describe mountains or hills.
9. spillway	g. a low area between two higher points, resembling a seat shape.
10. plateau	
11. elevation	h. a long, narrow raised part of the land, often found on mountains.
12. ridge	
13. saddle	i. a structure designed to allow excess water to flow away safely from a dam or reservoir.
	j. a surface that rises or falls at an angle, rather than being flat.
	k. an empty space inside something, making it not solid throughout.
	l. the highest point of a mountain or hill, often sharp and pointed.
	m. a small bush with woody stems, usually smaller than a tree.

READING

6. Read the texts and mark the statements as True (T) or False (F).

Terrain is a part of the earth's surface with all its elements: relief, soil, water, road network, settlements, vegetation and other objects. The nature of the terrain is determined by the shape of the relief and the presence of local objects (objects) located on it.

Terrain is a set of various irregularities on the earth's surface. All terrain objects created by nature or human activity (soil and vegetation cover, hydrography, road network, settlements, individual objects, etc.) are local objects.

Relief and local objects are called topographic elements of the terrain.

Typical landforms

The terrain is very diverse, but in general, five types of terrain can be distinguished:

Mountain - a significant height, domed or conical elevation that has a base and a peak. The top is most often domed, but sometimes it is an almost horizontal platform - a plateau, or ends in a sharp peak. The decrease from the top to the sole is called the slope. The slope can be flat, convex, concave and wavy. The sharp transition from a steep slope to a gentle slope is called a ledge or terrace, and the line that separates the terrace from the steep slope below is called a ridge. A mountain up to 200 m high is called a hill. An artificial hill is called a mound;

Ridge - an elongated elevation that descends in one direction. A watershed, or topographic ridge, is a line that connects the highest points of a ridge. A ridge, as a typical form, should be distinguished from a mountain range, a chain of mountains that point in one direction. Large ridges are adjacent to smaller ridges called spurs;

Hollow is an elongated depression that descends in one direction. A line along the bottom that connects the lowest points of a valley is called a spillway. Not every spillway has water flowing through it, but every river or stream has a spillway. Different types of valleys include valleys, gorges, ravines and gullies;

Saddle - a depression on the ridge crest between two neighbouring peaks. The lowest point of a saddle is called a pass. In mountainous terrain, communication routes across ridges usually go through passes. Low-lying saddles on both slopes of a ridge or between two mountain ranges are called mountain passes.

The characteristic lines (watersheds and spillways) and points (peaks, hollow bottoms, passes) of the relief, their image and relative position determine the general character of the terrain.

Soil and vegetation cover

The main types of vegetation include woody, shrubs, and grass cover. A set of woody vegetation with a height of 4 m or more and a thickness (diameter) of 5 cm or more is called a forest. A forest is characterised by its species, age, density and orderliness.

Soil is a generalised name for the upper layer of the earth's surface. Very wet areas with a layer of viscous soil more than 30 cm deep are called marshes. They are classified according to their passability: passable, difficult to pass and impassable.

According to the nature of the soil and vegetation cover, there are forest, marsh, steppe and desert areas.

Hydrography

Hydrographic objects include rivers, lakes, canals, ditches and other natural and artificial water bodies.

Road network

The road network includes railways, motorways, paved and unpaved roads. Roads are characterised by the width of the carriageway, pavement material, quality of road structures, slopes and turning radii.

Settlements

Settlements are hubs for all types of communication (transport). They are usually the hubs of industrial production. Settlements are divided into cities, urban-type settlements, rural and suburban settlements.

Settlements and the density of the road network are the main indicators of the settlement and development of the area and characterise the economic importance of a particular area. In addition, the concentration of population and production is usually decisive for determining and predicting the state of the environment in a given area.

Local landmarks

These are objects that stand out sharply in their appearance or location among the variety of objects on the earth's surface. They include: factory and plant pipes, oil and gas towers, water intake towers, monuments, churches, mounds, etc.

1. Terrain includes relief, soil, water, road networks, settlements, vegetation, and other objects.	
2. Local objects on the terrain are only those created by human activity.	
3. A mountain higher than 200 meters is called a hill.	
4. An artificial hill is called a mound.	
5. A ridge is an elongated elevation that descends in one direction.	
6. Every spillway has water flowing through it.	
7. A saddle is a depression on a ridge crest between two peaks.	
8. Forests are classified by species, age, density, and orderliness.	
9. Marshes are always passable and easy to cross.	
10. Hydrographic objects include only natural bodies of water.	

7. Read the text again and answer the questions.

1. What elements make up the terrain?

2. How is the nature of the terrain determined?

3. What are topographic elements of the terrain?

4. What is the difference between a hill and a mountain?

5. What is a ridge, and how does it differ from a mountain range?

6. What is a hollow, and what types of valleys exist?

7. What are the three main types of vegetation?

8. What are some examples of both natural and artificial hydrographic objects?

9. How do settlements function as hubs for communication and transportation?

10. What are local landmarks, and why are they important?

LISTENING

8. Listen to the audio 4.1 and complete the table about the landforms

Landform	Distinguishing features
Mountains	found in the oceans and on land.

9. Listen to the audio 4.1 again and complete the sentences with the words from the box.

oceans, deserts, glaciers, mountains, plateaus, valleys, plains

1. _____ are formed due to the tectonic movements, earthquakes.
2. _____ are formed by collisions of tectonic plates, magma action.
3. _____ are formed due to the actions of glaciers and rivers over millions of years.
4. In _____, the atmospheric air is very dry, and daytime temperature is high.
5. _____ are flat or the low relief areas on the surface of the earth.
6. _____ cover over 71% of the earth's surface.
7. _____ move depending on the pressure and gravity.

WRITING

10. Have you ever written leaflets? Do you know their purpose?

Check your ideas.

*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.*

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

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

Welcome to our beautiful region, where nature's wonders await you!

Here, you'll find some of the most breathtaking landforms.

Hike rolling hills and mountains

Let's start with the rolling hills. These gentle rises create a picturesque landscape that is perfect for walking and cycling. As you move further, you'll come across the majestic mountains. Covered in lush greenery, they offer challenging hikes and stunning views from the peaks.

Walk in valleys and cliffs

If you head south, you'll discover the serene valleys. These low areas between hills are often home to rivers and streams. The valleys are ideal for picnics and enjoying the tranquillity of nature. Nearby, the cliffs stand tall, offering dramatic views over the coastline. Be sure to take a camera, as the sunsets here are simply unforgettable.

Visit the coastline

Don't miss the coastal dunes, where sandy formations shape the coastline. These are home to unique plants and wildlife. Lastly, explore the caves, formed over thousands of years by the sea.

Each landform has its own story to tell, making our area a perfect place for adventure and discovery!

13. Write your own leaflet about landforms of your area.

5 BASICS OF TOPOGRAPHY

SPEAKING

1. Do you know...

- what is topography, and what does it study?

- why is it important to have different types of topographic maps and plans?

- how do topographic maps contribute to urban planning and infrastructure development?

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

1. The first known map dates back to ancient Babylon around 600 BCE.

2. Mercator's projection was created in 1569 for sailors to navigate more easily.

3. The oldest surviving map is a world map from 150 CE by Ptolemy.

4. Google Maps has over 1 billion monthly users as of 2021.

5. Maps can be drawn to scale, showing real-world distances accurately.

6. The term "topography" comes from the Greek words for "place" and "to write."

7. The U.S. Geological Survey makes detailed topographic maps for outdoor activities.

8. The first official national map of the UK was published in 1760.

9. The London Underground map was designed by Harry Beck in 1931.

10. Satellite imagery allows us to create detailed maps from space.

VOCABULARY

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

altitude system	система висот
coordinate system	система координат
geodetic grid	геодезична сітка
grid lines	лінії сітки
nomenclature	номенклатура
reference frame	референтна система координат
scale	масштаб
topographic map	топографічна карта
topographic plan	топографічний план
topography	топографія

4. Match words with their definitions

1. nomenclature	5. topography	9. topographic map
2. scale	6. coordinate system	10. reference frame
3. grid lines	7. topographic plan	
4. geodetic grid	8. altitude system	

a. a ratio that shows how much smaller a map is compared to the actual size of the area it represents.

b. a detailed representation of land features, showing elevation and terrain shapes.

c. a drawing that illustrates the layout of land features at a specific scale, often used for planning purposes.

d. a network of lines that helps to determine locations on the Earth's surface based on measurements.

e. straight lines that form a pattern on a map, helping to locate places easily.

f. a method used to measure the height of an object or location above sea level.

g. a set of criteria or standards used to define positions and movements in space.

h. a system of names and terms used in a particular field or subject.

i. the arrangement and shape of the physical features of an area, including hills, valleys, and flatlands.

j. a way to identify specific points on a map using numbers for position in relation to axes.

5. Rephrase each sentence using one of the phrases from the box.

> *nomenclature, scale, grid lines, geodetic grid, topography, coordinate system, topographic plan, altitude system, topographic map, reference frame*

1. The naming system for plants is quite complex.

_____

2. The map uses a ratio of 1:50,000.

_____

3. The map includes lines that intersect at right angles.

_____

4. The survey uses a network of precisely measured points.

_____

5. The landscape's physical features are well-detailed.

_____

6. The system helps in pinpointing exact locations.

_____

7. The detailed drawing shows the elevation of the land.

_____

8. The measurement system accounts for the height above sea level.

_____

9. The map shows the terrain's physical features.

_____

10. The system provides a basis for measuring positions.

_____

READING

6. Read the text and choose the correct answer (A, B, C or D).

Topographic maps

Topography is a science that studies the earth's surface (i.e., the elements of its physical surface and the objects of human activity located on it) in geometric terms. The purpose of this study is to create topographic maps.

A topographic map is a reduced generalised representation of the earth's surface, constructed according to certain mathematical laws. Topographic maps are drawn in the equirectangular transverse-cylindrical Gauss projection, calculated using the elements of the Krasovsky ellipsoid, and in the Baltic altitude system. The position of any point on the physical surface of the Earth is determined by the projection of this point on the surface of the Earth's ellipsoid (geodetic or rectangular coordinates). Areas of terrain on the map are shown in a reduced form.

Topographic maps show the area of the earth's surface bounded by meridians in the west and east, and parallels with known longitude and latitude in the north and south. On the northern and southern reference frames of the trapezoid are minute longitude divisions, and on the western and eastern sides - alternating black and white checkers. Each minute of longitude and latitude is divided by dots into six parts, the distance between which corresponds to 10'. By connecting the corresponding points at opposite latitudes and longitudes of the trapezoid with straight lines, you can get a geodetic grid of coordinates in the form of parallel lines and meridians. Their geographical coordinates are shown in the corners of the frame.

The rectangular coordinate system on a topographic map is represented by kilometre grid lines. The horizontal grid lines parallel to the projection of the equator onto the horizontal plane are the ordinate axes, and the vertical lines parallel to the axial meridian are the abscissa axes. The grid lines are drawn between the inner and outer frames, which allows for the determination of flat rectangular coordinates of points.

The altitude position of the earth's surface points is shown by horizontals drawn through the corresponding section height, depending on the map scale and the nature of the terrain, and additional absolute point labels. The elevation of the relief section is shown below the southern outer border.

Map sheet nomenclature is shown above the northern outer border. The numerical, verbal and linear scales, as well as the embedment schedule, are located below the southern outer border. An explanatory caption about the declination of the magnetic arrow and the average angles of convergence of the meridians is located under the southwest corner of the frame.

The inner frame of the map shows the relief and situation with the help of contour and out-of-scale conventional topographic symbols.

1. What is the primary purpose of topography?

A. To measure mountain heights

B. To create topographic maps

C. To study geological formations

D. To calculate land area

2. How are points on the Earth's surface positioned on a topographic map?

A. By using absolute coordinates

B. By projecting points onto the Earth's ellipsoid

C. By measuring terrain elevation

D. By drawing straight meridian lines

3. What does the rectangular coordinate system on a topographic map represent?

A. Geographical borders

B. Kilometre grid lines

C. Terrain elevation

D. Magnetic declination

4. How are the relief and situation of a map typically displayed?

A. Using verbal scales

B. Through linear measurements

C. With contour and topographic symbols

D. By kilometre grid lines

5. What projection method is typically used for topographic maps?

A. Cylindrical Mercator projection

B. Equirectangular transverse-cylindrical Gauss projection

C. Flat rectangular projection

D. Geographical grid projection

6. What information is typically located under the southwestern corner of the map frame?

A. Map sheet nomenclature

B. Elevation details

C. Magnetic arrow declination

D. Terrain section heights

7. What mathematical element is used in calculating topographic map projections?

A. Cartesian coordinates

B. Krasovsky ellipsoid

C. Geodetic grid

D. Parallel lines

7. Read the text about topographic maps and plans and answer the questions.

Topographic maps and plans purposes

Large-scale topographic maps (1:10,000 - 1:50,000) are used for detailed study of the terrain, orientation on it, as well as for various precise measurements and calculations.

Medium-scale topographic maps (1:100,000 - 1:200,000) are the basis for selecting road routes, conducting geological surveys, and for preliminary calculations when designing critical structures.

Small-scale topographic maps (1:500,000 - 1:100,000) are used to solve research and applied problems of resource use and economic development of territories. All

topographic maps are the basis for creating various thematic maps: geological, hydrogeological, geobotanical, etc.

Topographic plans at a scale of 1:5,000 are intended for: development of geological plans and projects for the location of the first stage of construction of certain, large and medium-sized cities, as well as for drawing up schemes for the location of residential and industrial areas under design; drawing up plans for engineering structures and projects of the most complex nodes in the development of suburban planning; drawing up technical projects for industrial and mining enterprises; drawing up technical projects for irrigation and drainage of land; cameral routing of motorways in difficult terrain conditions, at the entrances to significant points and in other places with a difficult situation; design of routes of overhead power lines at the points of crossing and their proximity to buildings. In addition, topographic plans at a scale of 1:5,000 are used for other purposes and are the basis for the preparation of topographic and specialised plans and maps at a smaller scale.

Topographic plans at a scale of 1:2,000 are intended for: development of master plans for small towns, urban-type settlements and rural settlements; preparation of executive plans for mining enterprises; design of roads and railways at the project stage in mountainous areas and working documentation in plain and hilly areas; etc.

Topographic plans at a scale of 1:1000 are intended for: drafting and working documentation of development on undeveloped territory or territory with one-storey buildings; drafting of landscaping projects and plans of existing underground networks and structures and their linkage to construction sites; etc.

Topographic plans at a scale of 1:500 are intended for: preparation of the executive master plan of the construction site and working documentation for multi-storey capital development with a dense network of underground utilities and industrial facilities.

Topographic plans contain information about objects and contours of the area and relief. Depending on the scale, they reliably depict, with the required degree of accuracy and detail, the following:

- points of the state geodetic network and planning and elevation justification;
- buildings, residential and non-residential buildings with indication of purpose, material and number of storeys;
- industrial facilities, drilling and production wells, above-ground pipelines, power lines, wells and underground communication networks, and utility facilities;

- railways, highways and unpaved roads of all types and structures on them: bridges, tunnels, crossings, ferries and overpasses;
- hydrography (rivers, lakes, reservoirs, spill areas); hydraulic and water transport facilities; canals, waterways and water distribution devices, dams; wharves, locks, lighthouses, navigation signs;
- water supply facilities (wells, columns, tanks, sumps, natural springs);
- terrain with the use of horizontals, elevation marks, berms, conventional signs of cliffs, rocks, scree, beams, glaciers;
- tree, shrub, herbaceous, cultural vegetation: forests, gardens and meadows, individual trees and shrubs with indication of species;
- soils and microforms of the earth's surface; sands, pebbles, takyrs, clay, gravel, monolithic and other surfaces, marshes, salt marshes;
- borders (political and administrative, land use, various fences).

On topographic plans, the proper names of settlements, streets, railway stations, marinas, forests, salt marshes, peaks, passes, valleys, swamps and other objects are indicated.

1.   What is topography, and what does it study?

2.   What is the main purpose of topographic maps?

3.   How do topographic maps represent the Earth's surface?

4.   What are the main elements used to determine a point's position on a topographic map?

5.   How do meridians and parallels help in locating areas on a topographic map?

6.   What projection method is used in topographic maps, and which system is used for altitude measurements?

7.   How are geographical coordinates displayed on a topographic map?

8.   What is the function of the rectangular coordinate system on a topographic map?

9.   How is the altitude of the terrain shown on a topographic map?

10.   Where can you find information about the declination of the magnetic arrow on a topographic map?

LISTENING

8. Look at the picture and listen to the audio 5.1.

What does Topography study?
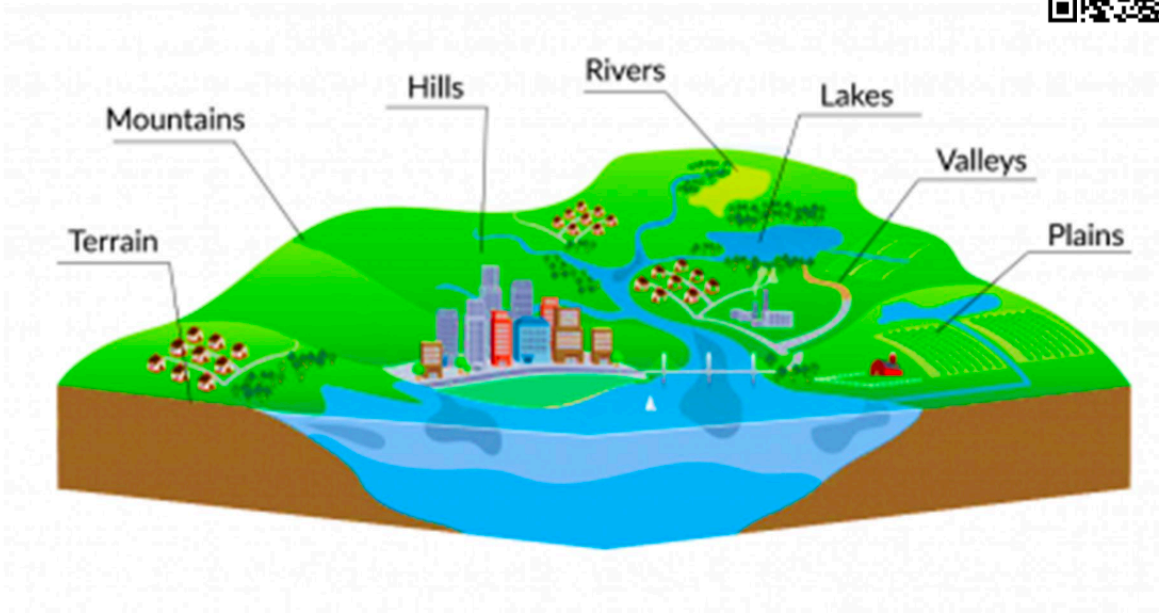
9. Listen to Audio 5.1 again and fill in the table about application of topographic maps. Try to mention as many as possible.

Professional field	Application
Engineering	to plan a road, construct a cell tower or plan a hydroelectric dam

10. Listen to the audio 5.2 and match the main steps of the map production process.

The Topographic Map Production Process

1. Scribing and Editing	a. Field checkers confirm important details, such as whether a stream is seasonal or if a road is private.
2. Surveying Control Points	b. Each color is printed separately using a lithographic press.
3. Printing the Map	c. The area is photographed from the air using special cameras.
4. Feature Verification	d. Surveyors determine precise locations of key points, such as road intersections, using latitude, longitude, and elevation data.
5. Aerial Photography	e. Overlapping aerial photos are processed in a stereoscopic projector to create a 3D terrain view.
6. Map Compilation	f. Different map elements are engraved onto plastic sheets, each representing a specific color (e.g., blue for water).

11. Listen to the audio 5.2 again and mark the statements True or False.

1. Aerial photographs are taken from a single angle to create 3D images.	
2. Surveyors use latitude, longitude, and elevation data to determine control points.	
3. Feature verification involves checking local records and confirming place names.	
4. Overlapping aerial photos are used to create a 2D terrain view.	
5. Contour lines and features are initially drawn in black on the map manuscript.	

WRITING

12. 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.*

13. Read the writing strategy. Discuss it with a partner. 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. [9;10]

Work Report Template	
Project name	*Surveying the plot 342*
Date	*14/08/2021*
Prepared by: your first and last name	*Jim Bell*
Company name	*Survey Inc.*
Executive summary or abstract	*This report contains the results of surveying the plot 342....*
Introduction *Body* *Recommendations* *Conclusion*	*The report was made after the surveying the area on 13-14/08/2021.* *The surveying plot has an area of* *We recommend to use this for ... because...* *The results of the survey were checked twice....*

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

<center>

How to write a work report

</center>

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

15. Imagine that you are working for the surveying company. Your task was to survey the plot and make a topographic plan of the area. Write a short work report about completed survey.

6 GEOSPATIAL TECHNOLOGIES

SPEAKING

1. Do you know...

- what is the specific task of GIS? GNSS?

- what does GIS stand for? GNSS?

- what are the main application areas of GIS? GNSS?

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

1. GNSS stands for Global Navigation Satellite System, and includes systems like GPS.

2. The first satellite of GPS was launched in 1978, marking a new era in navigation.

3. There are currently 31 active GPS satellites orbiting Earth, providing global coverage.

4. GIS combines hardware, software, and data for mapping and analysis of geographic information.

5. Over 80% of all data used in GIS are location-based.

6. The accuracy of GNSS can reach within a few centimeters with advanced techniques.

7. GIS technology was used during the 1960s to manage urban planning in New York City.

8. More than 1 million jobs in the U.S. depend on GIS technology today.

9. The public can access certain GNSS signals for free, but others require payment.

10. GIS mapping has greatly improved disaster response by providing real-time field data.

VOCABULARY

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

attribute data	атрибутивні дані
computational	обчислювальний
database	база даних
dataset	набір даних
data sharing	обмін даними
density	щільність
Environmental Systems Research Institute (ESRI)	Інститут досліджень систем навколишнього середовища
geographic information system (GIS)	геоінформаційна система (ГІС)
geospatial data	
innovate	геопросторові дані
quantitative	оновлювати, модернізувати
software	кількісний
spatial	програмне забезпечення
visualization	просторовий
	візуалізація

4. Match words with their definitions

1. spatial	a the process of creating images or diagrams to represent data clearly and effectively.
2. GIS	b relating to space or the arrangement of objects within it.
3. visualization	c a structured collection of information that can be easily accessed, managed, and updated.
4. attribute data	d a system that uses satellites to provide accurate location information anywhere on Earth.
5. GNSS	e information that is related to specific locations on the Earth's surface, often represented by coordinates.
6. geospatial data	f information that describes characteristics or properties of an object in a database.
7. database	g a technology used to capture, store, analyze, and present spatial or geographic data.

5. Rewrite the sentences using words in the box.

spatial, visualization, database, quantitative, innovate, geospatial data, computational, dataset, data sharing, software

1. He used computer algorithms to solve the problem.

_____

2. The information was stored in a large file system.

_____

3. The collection of information was analyzed for patterns.

_____

4. The research team exchanged information with other teams.

_____

5. The map included information about the location of resources.

_____

6. The company introduced a new method to improve efficiency.

_____

7. The study involved numerical analysis of the results.

_____

8. The program was designed to run on multiple platforms.

_____

9. The study focused on the arrangement of objects in space.

_____

10. The graph represented the information in a visual format.

_____

READING

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

Global positioning system (GPS)

A satellite-based global positioning system based on time and distance measurements allows you to determine the coordinates of points, the location of a moving object and its speed, calculate the distance and direction to a point, and the time of arrival and departure from a given course. This system uses satellites that emit special signals instead of geodetic markers and radio beacons. The current location of satellites in high orbits (20,000 km) is well known. Satellites constantly transmit information about their location. The distance to them is determined by measuring the time it takes for a radio signal to travel from the satellite to a radio receiver and multiplying it by the speed of electromagnetic wave propagation. The accuracy of measuring distances to satellites is ensured by synchronising the satellite clocks, which use atomic oscillators.

To determine the distances, satellites and receivers generate complex binary code sequences called pseudo-random codes. The time of signal propagation is determined by comparing the delay of the satellite's pseudo-code with that of the receiver. Each satellite has its own two pseudo-random codes. In order to distinguish between the range codes and information messages of different satellites, the receiver calls the corresponding codes. The pseudo-random range codes and satellite information messages are transmitted from all satellites simultaneously, on the same frequency and without mutual interference.

The GPS navigation system consists of three segments: space, control and user segments. The space segment includes more than two dozen satellites in several orbits. The control segment includes observation stations located at several points on the Earth and the main control station. Observation stations monitor the satellites and record all information about their movements. This information is transmitted to the main station to adjust the orbits of the satellites and navigational information. GPS receivers are the user segment.

GPS receivers have the following features: unique satellite tracking algorithms, user-friendly graphical interface, compactness and low power consumption.

The eTrex receiver is the smallest with 12 channels, and its algorithm allows you to quickly and easily navigate the terrain and plot routes, mark waypoints and determine your speed. An animated display allows you to monitor your position at all times.

The eMap mapping system, which contains information about cities, major rivers and lakes, and motorways around the world, is easy to use to find the cities and waypoints you need. It allows you to measure distances to destinations, store or display information about points and routes, memory cards for the map backing.

The GPS II PLUS personal navigation receiver has built-in functions such as a trip timer with automatic shutdown during stops, the ability to calculate the average and maximum speed along the route, and keys for changing the scale of the moving map. It contains information about the main cities of the world, and its compact body allows you to carry the device in your hand.

The GPS III PLUS personal navigation receiver, unlike the GPS II PLUS receiver, has a map backing that excludes information about the world's major cities, rivers, lakes, railways and roads. There is also information about the coastline with a width of 20 nautical miles. The receiver can display geo-information with an image zoom from 150 m to 9,000 km.

Technical specifications of GPS navigation receivers

Parameters	eTrex	eMap	GPS II PLUS	GPS III PLUS
Screen Resolution, points	100 x 64	120 x 160	100 x 64	100 x 64
Screen size, mm	54 x 27	60 x 45	56 x 38	56 x 38
Number of routes	1 of 50	10 of 2000	20 of 6000	20 of 6000
Location accuracy	5 ... 10 m			

1. A satellite-based global positioning system allows you to determine the coordinates, location, speed, and direction of a moving object.	*T*
2. GPS uses geodetic markers and radio beacons instead of satellites to determine location.	
3. Satellites constantly transmit information about their position, and the distance to them is calculated by measuring signal travel time.	
4. Synchronised atomic clocks in satellites ensure the accuracy of GPS distance measurements.	
5. GPS satellites use identical pseudo-random codes, which are shared among all satellites.	
6. GPS signals are transmitted simultaneously from all satellites on the same frequency without interfering with each other.	
7. The GPS system is divided into space, control, and user segments.	
8. GPS receivers have high power consumption and are generally bulky.	
9. The eMap system provides map information including cities, rivers, lakes, and roads worldwide.	
10. The GPS III PLUS receiver includes detailed information about the world's major cities, similar to the GPS II PLUS.	

7. Read the texts again and answer the questions.

1.   What measurements does a satellite-based global positioning system use to determine location and speed?

2.   How is the distance between a GPS satellite and a receiver calculated?

3.   What are pseudo-random codes, and why are they important in GPS systems?

4.   Name and describe the three main segments of the GPS navigation system.

5.   What are the key features of GPS receivers mentioned in the text?

6.   How does the eTrex receiver assist in navigation and route plotting?

7.   What is the main difference between the GPS II PLUS and GPS III PLUS receivers in terms of mapping features?

LISTENING

8. Listen to the audio 6.1 again and choose the correct answer (A, B, C or D).

1. What is one major direction for the future of GIS?

A. Integration with robotics and drones

B. Integration with AR and VR technologies

C. Transition to paper-based mapping

D. Replacement by traditional surveying tools

2. According to the text, what challenge exists when discussing the future of GIS?

A. Lack of funding for new developments

B. Limited public interest

C. Difficulty in predicting technological advancements

D. Absence of geospatial data

3. Which professionals might benefit from GIS-enabled AR applications?

A. Musicians and artists

B. Architects and city planners

C. Fashion designers

D. Historians and archaeologists

4. What popular game is mentioned as an early example of mobile GIS and AR integration?

A. Minecraft

B. Angry Birds

C. Pokémon Go

D. Fortnite

5. How do mobile GIS apps enhance the user experience, according to the text?

A. By offering voice-controlled maps

B. By enabling immersive experiences with 3D spatial data

C. By working offline only

D. By reducing the need for GPS

6. What general trend is expected for GIS in the coming years?

A. Decreased usage in business

B. Replacement by satellite imagery

C. Broader adoption across industries

D. Elimination from academic programs

7. How is GIS expected to interact with other technologies like IoT and data analytics?

A. By making them obsolete

B. By limiting their functionality

C. By helping transform and apply them more effectively

D. By functioning independently without any overlap

9. Listen to the audio 6.2 and answer the questions.

1. What is the purpose of a GNSS (Global Navigation Satellite System)?

2. How do GNSS systems determine the location of an object?

3. What are the main existing and promising GNSS systems?

4. How can the positioning accuracy of GNSS systems be improved from several meters to centimeters?

5. What is the purpose of differential corrections in GNSS systems?

6. How has the System.NET network in Ukraine expanded the positioning area and capabilities of GNSS?

7. What are some of the additional benefits provided by the System.NET network in Ukraine?

10. Listen to the audio 1.2 again and mark the statements True or False.

1. GNSS is used to determine the coordinates, direction, and speed of objects.	
2. The International GNSS Service (IGS) brings together about 200 organisations that collect GNSS data worldwide.	
3. GNSS systems are made up of two main components: space and ground segments.	
4. The position of an object is calculated by measuring distances to satellites with known positions.	
5. The only GNSS system currently in use is GPS from the United States.	
6. Differential corrections can improve GNSS positioning accuracy from several meters to centimeters.	
7. Differential corrections are transmitted from both geostationary satellites and ground base stations.	
8. GNSS systems can determine an object's location without knowing the positions of the satellites.	
9. The System.NET network in Ukraine only works within a 10 km radius of its base stations.	
10. Differential corrections reduce GNSS accuracy to below 10 meters.	

WRITING

13. 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?

14. Read the writing strategy. Look through the inquiry letter structure.

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. In a business relationship, employees of one company may write inquiries to find out about the products and services of another company.

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

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E-mail: v.shevchenko@gmail.com

13 August 2025

Land Survey Inc.

73 Apple Avenue,

Bristol, BL 4465

Dear Sir or Madam,

I am a Chief Land Surveyor at Private Surveying Company in Zaporizhzhia. Our company is rather young but rapidly growing.

We have read your promotional booklet and are interested in purchasing your products. However, we need to clarify some points:

1. Possible discounts

2. Delivery Conditions

3. Terms and conditions of guarantee

I look forward to hearing from you.

Yours faithfully,

Signature

Viktor Shevchenko

15. Write a formal inquiry letter to a GPS equipment supplier or manufacturer requesting detailed information about their products (100-150 words).

Your letter should include:

- A brief introduction of who you are and the purpose of your inquiry
- A clear request for information about GPS receiver models, specifications, availability, and pricing
- Questions about delivery options, warranty, technical support, or bulk discounts, if relevant
- A polite closing, thanking the recipient and including your contact information

7 LAND USE PLANNING

SPEAKING

1. Do you know...

- what is the goal of land use planning?

- how does it balance the environment and economy?

- who is involved in land use planning?

- how is GIS used in land use planning?

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

1. Land use planning started in the early 20th century for urban growth control.

2. About 54% of the world's population lives in urban areas today.

3. Zoning laws determine how land can be used in cities and towns.

4. Sustainable land use helps reduce carbon emissions and protects ecosystems.

5. The U.S. lost 24 million acres of farmland from 2007 to 2012.

6. Smart growth principles aim to create walkable, mixed-use communities.

7. Green spaces in cities can reduce heat by up to 5°F.

8. In 2016, 79% of Americans supported local land use planning efforts.

9. Land use planning can improve public health by promoting active lifestyles.

10. Coastal cities face significant planning challenges due to rising sea levels.

VOCABULARY

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

environmental impact	екологічний вплив
green space	зелені зони
infrastructure	інфраструктура
land allocation	перезонування
land conservation	охорона земель
land management	управління землями
land parcel	земельна ділянка
land-use conflict	конфлікти землекористування
land-use map	карта використання земель
land-use policy	політика використання земель
land-use regulation	регулювання використання земель
master plan	генеральний план
mixed-use	змішане використання
urban development	міський розвиток
urban sprawl	урбаністичне розростання
sustainable development	сталий розвиток
zoning	зонування

4. Match words with their definitions

1. land management	5. urban sprawl	9. land-use regulation
2. land-use policy	6. land-use conflict	10. zoning
3. land-use map	7. mixed-use	11. land conservation
4. urban development	8. land parcel	12. land allocation

a. the process of deciding how land will be divided and used for different purposes.

b. a disagreement between groups about how to use a specific piece of land.

c. a type of building project that combines residential, commercial, and sometimes industrial spaces in one area.

d. rules set by governments to control what can be built or done on certain pieces of land.

e. a visual representation showing how different areas of land are designated for various activities.

f. the practice of overseeing and controlling how land is used and maintained.

g. the growth and improvement of cities through new buildings and infrastructure.

h. a specific area of land that is defined by boundaries and can be bought or sold.

i. guidelines created by authorities to determine how land should be utilized in a community.

j. the spread of a city into surrounding rural areas, often leading to low-density housing.

k. the division of land into sections where specific types of activities or developments are allowed.

l. efforts made to protect and preserve natural areas and resources on land.

5. Read the text and fill in the gaps using words in the box

infrastructure, land-use conflict, urban sprawl, land-use policy, land parcel, zoning, green space, environmental impact

1. Strict _____ prevent factories from being built in residential areas.

2. Rapid _____ has led to the loss of valuable agricultural lands.

3. The city invested heavily in new _____, including roads, water supply, and waste management systems.

4. The city council plans to create more _____ to improve residents' quality of life.

5. The new _____ prioritizes sustainable development and the protection of green spaces.

6. The construction project was delayed due to concerns about its _____ on the local wildlife.

7. A _____ arose when developers planned to build a shopping mall next to a protected wetland.

8. The government auctioned off a _____ near the industrial zone for commercial use.

READING

6. Read the texts and mark the statements as True (T) or False (F).

In any city, we have to think about how land is used. This is where land-use planning and zoning come into play. It is important to have a master plan to organize the use of land so that we can have sustainable development. Through this process, cities can decide where to build homes, schools, and businesses, while also protecting natural areas.

A crucial part of land-use planning is taking into account the environmental impact of building projects. This means looking at how construction and urban development can affect the air, water, plants, and animals in the area. To reduce negative effects, cities should carefully plan infrastructure, such as roads and bridges, and make sure there is enough green space, like parks and gardens, for people and nature to enjoy.

Cities use a land-use map as a guide for where different activities can occur. This map helps to manage land parcels, which are individual pieces of land. Using a land-use map, cities can prevent land-use conflicts by setting clear rules for each area. These rules are known as land-use regulations, which can limit how land can be used in certain areas. For example, some areas might be for houses, while others are for mixed-use development, combining homes, shops, and offices.

Urban sprawl is a big challenge for many cities. This happens when cities grow too fast and spread too far, which can lead to problems like traffic, pollution, and a loss of rural lands. To fight this, cities need to practice land conservation and focus on sustainable development. They can do this by promoting urban development that is compact and includes a variety of land uses.

Effective land management and land-use policy help balance the needs of different groups and make sure that growth happens in a way that benefits everyone. Smart planning and zoning can lead to communities that are nice places to live, work, and play, while still keeping the environment healthy for future generations.

1. Land-use planning helps organize land use in a city for sustainable development.	

2. A land-use map shows only where green spaces like parks should be located.	
3. Zoning regulations are used to prevent land-use conflicts by setting rules for land use.	
4. Environmental impact is not considered during land-use planning.	
5. Land parcels refer to large public parks in cities.	
6. Urban sprawl is beneficial because it helps cities grow faster.	
7. Mixed-use development combines homes, shops, and offices in one area.	
8. Infrastructure such as roads and bridges should be planned carefully to reduce negative environmental effects.	
9. Smart planning and zoning can help protect the environment and create better communities.	
10. Land-use policy only focuses on building houses, not on environmental conservation.	

7. Read the text again and answer the questions.

1. What is the purpose of land-use planning and zoning in cities?

2. How does land-use planning take into account the environmental impact of building projects?

3. What is the role of a land-use map in managing land parcels and preventing land-use conflicts?

4. What is urban sprawl, and how can cities address this challenge?

5. What are some of the key principles of effective land management and land-use policy?

6. How can smart planning and zoning lead to communities that are beneficial for both people and the environment?

7. Why is it important to have a balance between different land uses and the needs of various groups in a city?

8 Complete the sentences with following words. Use each word or phrase only once.

> *land conservation, land management, land parcel, land-use conflict*
>
> *land-use map, land-use policy, land-use regulation, master plan*
>
> *mixed-use development, urban development*

1. There was a _____ when a factory was built near a residential area.

2. The city council approved a new project focused on land conservation to protect _____ from urban sprawl.

3. Effective _____ ensures that natural resources are used sustainably.

4. The developer purchased a _____ near the city center to build a shopping complex.

5. Planners used the _____ to decide the best areas for schools, parks, and businesses.

6. The government updated its _____ to support eco-friendly housing projects.

7. Strict _____ prevent factories from being built in residential zones.

8. The city's _____ includes public transportation improvements and more green spaces.

9. The new _____ will include apartments, restaurants, and office spaces in one complex.

10. Rapid _____ has increased demand for better infrastructure and housing solutions.

LISTENING

9. Listen to the audio 7.1. and answer the questions.

1. How does zoning influence our daily lives?

2. What was the original purpose of introducing zoning laws?

3. How have zoning laws been used to enforce racial segregation in the past?

4. How do exclusionary zoning policies continue to limit racial and economic diversity in communities today?

5. What are the negative consequences of segregation, both racial and economic, on communities?

6. How can zoning be used to bring people together instead of dividing them?

7. What are some examples of how communities are rethinking their zoning laws to promote inclusive growth?

10. Listen to the audio 7.1 again and match the halves of the sentences.

1. Zoning doesn't just shape our neighborhoods —	a) where housing, schools, and parks can be located, and who has access to them.
2. Local zoning rules determine	b) continue to limit racial and economic diversity.
3. In the early 20th century, some communities used zoning laws	c) making room for multifamily housing, encouraging walkable neighborhoods, and supporting inclusive growth.
4. Exclusionary zoning — policies that limit lower-cost or higher-density housing —	d) it influences our daily lives.
5. Across the United States, communities are starting to rethink their zoning laws —	e) to enforce racial segregation, treating people of different races as incompatible as houses and smokestacks.

11. Fill in the text with missing words.

Zoning	*land uses*	*industrial*	*area*	*zoning codes*
	regulations	*separate*		

Zoning is a way for communities to **1.** _____ land by use or form. For example, an **2.** _____ could be dedicated to commercial or **3.** _____ use, or there could be a restriction on how many housing units can be built. **4.** _____ shapes the places where we live, but it also shapes our lives.

Local zoning **5.** _____ determine where we can find housing, schools, and parks, and who gets to use them. Policymakers initially created **6.** _____ to protect public health - for example, to stop residents from getting sick from living too close to factories.

But from the start, zoning has separated more than just **7.** _____. It has also separated people.

12. Mark the statements as True (T) or False (F)

1. Local zoning regulations don't deal with housing, schools, and parks location and who gets to use them.	
2. Even today, exclusionary zoning policies that restrict lower-cost or higher-density housing limit racial and economic diversity and raise housing costs.	
3.When regions are more economically and racially segregated, everyone wins.	
4. Despite being created to protect public health, zoning often pushes multifamily buildings closer to highways and areas with higher concentrations of air pollutants.	
5. Communities across the US are not ready to reexamine the role of zoning and change their restrictive zoning rules.	

WRITING

13. 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. [7]

14. 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. [8]

15. You are a surveyor in the Surveying office. Write a proposal letter or email to another company (100 – 150 words), in which offer your services or products, say about benefits and prospects of future cooperation.

8 LAND OWNERSHIP AND LEGAL ASPECTS IN UKRAINE

SPEAKING

1. Do you know...

- what are the main forms of land ownership in Ukraine?
- what documents confirm ownership of a land plot?
- which government agencies regulate legal issues related to land ownership in Ukraine?

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

1. The agricultural land market has only been open since 1 July 2021 - until then, Ukraine had a moratorium on the sale of agricultural land for almost 20 years.

2. Foreigners are not yet able to buy agricultural land in Ukraine.

3. Data on land plots and their owners are open to the public - the Public Cadastral Map of Ukraine allows viewing the boundaries and information on any registered plot.

4. Ukraine has over 42 million hectares of agricultural land, one of the largest areas of arable land in Europe.

5. Ukraine has an electronic system for registering land rights, which allows you to submit documents online through the Diia portal or state cadastral services.

6. Shared land is a unique Ukrainian phenomenon that arose after the dismemberment of collective farms.

7. Land in Ukraine is one of the most valuable natural resources, and more than 70% of the country's territory is used for agriculture.

9. The Commercial Court deals with land disputes, including illegal leases, unauthorised occupation, and trespassing.

10. Land parcels are divided by designated purpose, and changing the designation (e.g. from agricultural to construction) is a complex legal process that requires permits.

VOCABULARY

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

amalgamated territorial communitiy (hromada)	об'єднана територіальна громада
cadastre	кадастр
delimitation	обмеження, розмежування
demarcation	демаркація, розмежування
elimination	виключення, скасування
executive body	виконавча влада
implementation	впровадження
geodetic network	геодезична мережа, пункт
land division	розподіл землі
land plot	земельна ділянка
land relations	земельні відносини
land valuation	грошова оцінка земель
lease	оренда
legislative	законодавчий
moratorium	мораторій
National Geospatial Data Infrastructure	Національна інфраструктура геопросторових даних
possession	володіння
privatisation	приватизація
StateGeoCadastre	Держгеокадастр

4. Match words with their definitions

1. land division	4. land relations	7. land valuation
2. cadastre	5. geodetic network	8. moratorium
3. lease	6. privatisation	

a. a system of points on the Earth's surface used for measuring distances and angles accurately.

b. the process of separating a piece of land into smaller parts for different uses or ownership.

c. a legal agreement where one person pays to use someone else's property for a specific time.

d. a public record that shows the details of land ownership and boundaries.

e. the assessment of how much a piece of land is worth based on various factors like location and size.

f. a temporary pause or delay in an activity, often related to laws or regulations.

g. the transfer of ownership of a business or service from the government to private individuals or companies.

h. the legal and social connections between people regarding the use and ownership of land.

5. Rephrase each sentence using words in the box

delimitation demarcation elimination implementation lease
geodetic network land valuation moratorium privatisation

1. The boundaries of the property were clearly defined.

_____

2. The exact border between the two countries was established.

_____

3. The company decided to remove outdated software from their systems.

_____

4. The new policy was put into effect immediately.

_____

5. The surveyors used a precise system of coordinates for their measurements.

_____

6. The worth of the land was assessed by an expert.

_____

7. They agreed to rent the apartment for one year.

_____

8. The government declared a temporary halt on new construction.

_____

9. The government sold the state-owned companies to private investors.

_____

READING

6. Read the texts and mark the statements as True (T) or False (F).

Land Reform in Ukraine

Since the first years of independence, Ukraine has been actively reforming its land relations. During the period of land reform in Ukraine (1990-2000), land management faced new challenges aimed at implementing the state's land policy and radically changing land relations.

Phase I (from 1990 to 2000).

On 18 February 1990, the Verkhovna Rada of the Ukrainian SSR adopted the Land Code. It came into force on 15 March 1991. For the first time, peasants could receive state-owned arable land in possession or lease. Land management was transferred from the executive committees of local councils to local councils. For the first time in 70 years of Soviet rule, farms were allowed to exist, which could cultivate up to 50 hectares of arable land.

The new Land Code, in accordance with the Declaration of State Sovereignty of Ukraine, recognised that land in the Ukrainian SSR was the property of the people. The right to use land was established in three forms:

- lifetime inherited possession for citizens;

- permanent possession for agricultural and forestry enterprises and organisations; and use (permanent and temporary, including lease) for non-agricultural and other enterprises, institutions, organisations and citizens.

On 30 January 1992, the Law of Ukraine 'On Forms of Land Ownership' was adopted, and in March of the same year, a new version of the Land Code of Ukraine was adopted.

In addition to state ownership, collective and private ownership of land was introduced, and all forms were equal. The new forms of ownership expanded the range of subjects of land ownership to include individuals and legal entities. However, the search for new forms of ownership did not stop there [10].

In 2000, the requirement of the Decree to replace land share certificates with state acts of private land ownership began to be implemented. This created real conditions for the introduction of a full-fledged land market in our country.

Phase II (from 2011 to 2021).

The next important stage in the development of land relations over the decade was the Decree of the Cabinet of Ministers of Ukraine of 26.10.2011 No. 1072-r 'On Approval of the Action Plan for Land Reform and Creation of a Transparent Agricultural Land Market'. This plan provided for the development of draft laws to simplify the procedure for establishing the boundaries of settlements, approval of the National Programme for the Development of Land Relations until 2020, cancellation of free privatisation of land plots, analysis, systematisation and streamlining of cadastral information, regulation of land cadastre, etc.

In 2015, the Ministry of Agrarian Policy and Food of Ukraine drafted the Unified Comprehensive Strategy and Action Plan for the Development of Agriculture and Rural Areas in Ukraine for 2015-2020. The main goal of the strategy was to create an open and transparent agricultural land market by improving the land lease market, promoting open and transparent lease of state and communal land, and creating a land cadastre. This document also took into account the need to continue land reform, but it was never approved.

The creation of a state land cadastre in Ukraine was an important step in reforming land relations and land management after independence. The process of creating a land cadastre in Ukraine began with the adoption of legislative acts. The first important document was the Land Code of Ukraine, adopted on 25 October 2001. This document defined the basic principles of land relations regulation and enshrined the need to create a state land cadastre.

On 1 January 2013, the electronic register of the state land cadastre was officially launched, which significantly simplified the process of land registration and provided access to cadastral information online.

In the course of the cadastre's functioning, the legislation was constantly amended and supplemented to improve cadastre procedures.

National geospatial data infrastructure

Ukraine has joined the group of European countries that are creating their own geospatial data infrastructures, which is a mandatory requirement for EU member states and candidate countries.

According to the Order of the StateGeoCadastre dated 28.01.2021 No. 47, the State Enterprise 'Research Institute of Geodesy and Cartography' (NDIGK) was appointed as the administrator of the national geoportal, which is responsible for creating and

maintaining the national geoportal, metadata database and integration of geospatial data from producers.

As part of the innovative project, NSDIG launched a geoportal - a prototype of the national geoportal (nsdi.gov.ua), which provides easy search and free access to geospatial data sets published in accordance with the current legislation.

During the geoportal's operation, mechanisms for interaction with the geoportals of the urban planning cadastre and official geoportals of city councils were developed, personal electronic accounts were created for data holders, producers and users, geospatial data access services were developed and tested, and existing basic and thematic geospatial data were integrated.

Since 2015, as part of the decentralisation reform, amalgamated territorial communities (hromadas) have been formed in Ukraine, on the basis of which a new administrative and territorial structure was formed in 2020. Between 2015 and 2020, 1070 amalgamated territorial communities were formed in Ukraine through the voluntary amalgamation of previously existing communities.

On 31 March 2020, the Verkhovna Rada of Ukraine adopted Law No. 2178-10 'On Amendments to Certain Legislative Acts of Ukraine on the Turnover of Agricultural Land' [41], which lifted the moratorium on the sale of agricultural land.

In accordance with the above law, on 1 July 2021, the moratorium (ban) on the sale of agricultural land, except for state-owned land, was lifted.

Banks may acquire ownership of agricultural land only by collecting it as collateral. They are obliged to alienate such land plots through land auctions within two years of obtaining ownership.

Foreign citizens will be able to purchase land or shares in legal entities that own land only if approved by a referendum.

1. The Land Code adopted in 1990 allowed peasants to receive state-owned arable land for possession or lease for the first time in 70 years.	*T*
2. The Land Code of 1990 allowed farms to cultivate up to 100 hectares of land.	
3. In 1992, collective and private ownership of land was introduced in Ukraine alongside state ownership.	

4. In 2000, Ukraine began replacing land share certificates with state acts of private land ownership.	
5. The Unified Comprehensive Strategy for 2015–2020 was officially approved and implemented in full.	
6. The state land cadastre's electronic register was officially launched on 1 January 2013.	
7. The administrator of the national geoportal is the Ministry of Digital Transformation of Ukraine.	
8. By 2020, Ukraine had formed 1070 amalgamated territorial communities through decentralisation.	
9. The moratorium on the sale of agricultural land was lifted on 1 July 2021, except for state-owned land.	
10. Foreign citizens can freely buy agricultural land in Ukraine without any restrictions.	

7. Read the text again and answer the questions.

1. When was the first Land Code of the Ukrainian SSR adopted, and when did it come into force?

2. What new land ownership forms were introduced by the 1992 Land Code?

3. What rights to land use were established in Ukraine after the adoption of the Land Code in the early 1990s?

4. What was the significance of replacing land share certificates with state acts of private ownership in 2000?

5. What was the purpose of the Cabinet of Ministers' 2011 Action Plan on land reform?

6. Under what conditions can foreign citizens acquire agricultural land in Ukraine?

7. When did the electronic state land cadastre become operational, and what did it enable?

8. What law lifted the moratorium on the sale of agricultural land, and when did this change take effect?

LISTENING

8. Listen to the audio 8.1 and mark the statements as True (T) or False (F).

1. Land management only involves the legal registration of land plots.	
2. In Ukraine, only state institutions are involved in land management activities.	
3. StateGeoCadastre is responsible for controlling and regulating land management processes in Ukraine.	
4. Modern land management methods do not rely on technology.	
5. The use of GIS and remote sensing contributes to more efficient land management.	
6. Ukraine's transition to a market economy was smooth and free of problems in land management.	
7. The liberalisation of the land market is seen as a key development opportunity in Ukraine.	
8. Improving the land management system includes introducing new technologies and refining the legal framework.	
9. Studying international experience in land management is considered unnecessary for Ukraine's development.	
10. Land pollution is not considered a current challenge in Ukraine's land relations.	

9. Listen to the audio 8.2 and complete the table about the natural cadastres

Type of natural cadastres	Information included
Land cadastre	Size and boundaries of land plots Ownership and use Purpose and use of land Cadastral valuation of land plots

90

WRITING

10. Have you ever written formal letters? Do you know their purpose?

Check your ideas.

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.

11. 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.

GeoUkraine LLC
14 Zelena St.
Kyiv, 79000
E-mail: geoua@gmail.com
Tel.: (067) 123-45-67

27 May 2025

Head of the Department of Geodesy
and Cartography of the State Geocadastre of Ukraine
Danylo Halytskii

Regarding permission to conduct geodesic work

Dear Mr Halytskii,

GeoUkraine LLC is requesting your permission to conduct geodetic surveying work in the Kyiv Oblast for the purpose of updating topographic maps at a scale of 1:2000.

The geodetic work is planned to be carried out in accordance with the current legislation of Ukraine and in compliance with all regulatory requirements. The necessary documentation and technical specifications are attached to this letter.

We kindly ask you to consider our request within the established time frame and, if necessary, inform us of any additional conditions or documents that need to be provided.

We thank you in advance for your cooperation and assistance in the development of the national cartographic database.

Sincerely,
Oleksandr Mohyla
Director of GeoUkraine LLC
(067) 123-45-67
geoua@gmail.com

12 Imagine you are a landowner. Write a formal letter (120–150 words) to the StateGeoCadastre asking for information about:

- how to register your land in the electronic cadastre
- what documents are needed
- how long the process takes

GRAMMAR REVIEW

PRESENT SIMPLE TENSE

Present Simple Tense – теперішній простий час англійської мови, вживається для позначення дій, що відбуваються у теперішньому часі в найширшому сенсі цього слова.

Утворення Present Simple Tense

➕	➖	❓
I walk	I don't walk	Do I walk?
You walk	You don't walk	Do you walk?
He / She / It walk**s***	He / she / it doesn't walk	Does he / she / it walk?
We walk	We don't walk	Do we walk?
You walk	You don't walk	Do you walk?
They walk	They don't walk	Do they walk?

* У стверджувальному реченні більшість дієслів у третій особі однини (*he*, *she*, *it)* мають закінчення **-s.** Закінчення **-es** додається у таких випадках:

якщо основа дієслова закінчується на *-s, -ss, -sh, -ch, -tch, -x*:

  to pass — pass**es**   to fish — fish**es**   to fix — fix**es**

якщо основа дієслова закінчується на *-y* з попередньою приголосною, при цьому перед *-es* буква *у* **змінюється на** *i***:**

  to tidy — tid**ies**   to try — tr**ies**

Але: Якщо перед *у* **стоїть голосна, то до дієслова додається лише закінчення *-s***:**

  to pray — pray**s**   to lay — lay**s**

якщо основа дієслова закінчується на *-o*:**

  to do — do**es**   to go – go**es**

ВЖИВАННЯ PRESENT SIMPLE TENSE

1.   Для вираження повторюваної або постійної дії:

Diana visits her grandparents every weekend.

2.   Для вираження дії, яка характеризує предмет постійно:

His brother swims very well.

3.   Коли ми говоримо про факти або абсолютні істини:

Salt dissolves in warm water.

4.   Коли ми говоримо про звички та хобі:

This team plays basketball twice a week.

5.   Коли ми говоримо про розклад (навіть якщо це буде стосуватись майбутнього):

The bus arrives at 10.

The lecture starts next Tuesday.

ADVERBS OF FREQUENCY

Always - завжди   *Sometimes* - іноді

Often - часто   *Rarely, seldom, hardly ever* – рідко

Usually – зазвичай   *Never* - ніколи

Прислівники частоти прийнято ставити перед основним дієсловом, але після допоміжних (do, does), включаючи to be (am, is, are) та похідних від них.

Lily <u>is</u> **always** glad to see him.

John **often** tells jokes.

PRESENT CONTINUOUS TENSE

Present Continuous Tense зазвичай вказує на процес, що триває у момент мовлення. На це може вказувати контекст або такі слова як *now*, *at the moment*, at *present, today, these days*.

Утворення Present Continuous Tense

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

Утворення –*ing*-форми основного дієслова

Кінцева -*е* основи дієслова випадає перед -*ing*:

to make – mak**ing**   to come – com**ing**

Проте дві -*е* залишаються перед закінченням -*ing*:

to agree – see**ing**   to see – see**ing**

Якщо основа дієслова закінчується на -*ie*, ці голосні замінюються на -*y*:

to lie – l**ying**   to tie – t**ying**

Закінчення -*у* не змінюється:

to marry – marry**ing**

Кінцевий приголосний подвоюється на письмі, коли йому передує короткий наголошений голосний звук:

to stop – stop**ping**

ВЖИВАННЯ PRESENT CONTINUOUS TENSE

1. Дія відбувається в момент мовлення:

The musician is playing my favourite song now.

2. Запланована дія у найближчому майбутньому:

They are arriving in 10 minutes to the station.

3. Коли чиясь поведінка дратує (зі словом *always*):

He is always listening loud music in his room.

Mary is always disturbing me after hard working day.

STATIVE VERBS

Дієслова стану - це ті дієслова, які описують якийсь стан, почуття чи сприйняття. Дієслова стану зазвичай не вживаються у *Present Continuous Tense*, адже вони не позначають процес дії.

Випадки	Дієслова стану
Вподобання або антипатія:	to adore, to dislike, to hate, to enjoy, to like, to love, to prefer
Все, що ми сприймаємо органами чуття:	to feel, to hear, to look, to see, to smell, to sound, to taste
Все, що ми сприймаємо в принципі:	to believe, to forget, to know, to notice, to realize, to remember, to seem, to think, to understand
Дієслова, які виражають інші стани:	to belong, to contain, to cost, to have (to possess), to include, to need, to matter, to mean, to own, to want

**Коли вказані вище дієслова виражають дію, а не стан, то вони мають зовсім інше значення і вживаються в тривалому часі.
Проаналізуйте дані приклади:**

I think he is sensible. - Я думаю, що він розумний. (Я так постійно вважаю)

I'm thinking about him. - Я думаю про нього. (Я зараз про нього думаю)

Your soup tastes awful. - Ваш суп жахливий на смак. (Характеристика смаку)

I'm tasting the soup. - Я куштую суп. (Дія без характеристики смакових якостей)

I see your house far away. - Я бачу ваш будинок вдалині. (Я дивлюся і бачу)

I'm seeing Debera. - Я зустрічаюся з Деборою. (У мене з нею стосунки)

I'm seeing my partner tomorrow. - Завтра в мене зустріч з партнером. (Запланована зустріч)

It looks great. - Це чудово виглядає. (Характеристика)

The cat is looking at the bird. - Кіт дивиться на птаха. (Дія)

Those cookies smell good. - Те печиво приємно пахне. (Характеристика)

Child is smelling the flower. - Дитина нюхає квітку. (Дія)

Adam is an aggressive person. – Адам агресивна особа. (Характеристика)

Adam is being aggressive. - Адам веде себе агресивно. (Поведінка)

Grace has her own bicycle. - У Грейс є свій власний ровер. (Характеристика)

Grace is having lunch now. - Грейс зараз обідає. (Дія)

_____

Exercise 1.

Use the right form of the verb in brackets.

1. Now, you _____ (**go**) to the most picturesque place in this region.

2. Mary _____ (**show**) the latest collection of her handmade necklaces.

3. "Watch there!" cried the officer. "Something _____ (**happen**) there."

4. – _____ you _____ (**kid**)? – No, we _____ (**not joke**), madam. We're dead serious.

5. Oh, dear, pay no attention to Helen! She _____ (**lie**) to you.

11. Listen, you and Samuel _____ (**come**) for weekend's picknick?

6. I still can't understand what the lecturer _____ (**talk**) about.

7. "I _____ (**starve**), and I am tired. I _____ (want) to relax in that cafe," complained aunt Fiona.

8. Nowadays, in this country, citizens _____ (**face**) a lot of economics problems.

9. – Why _____ she _____ (**cry**), mum? – Can't you see your granny _____ (cut) onions?

10. _____ they _____ (**think**) of buying this house? We_____ (**think**) it's the right time to do it.

11. – _____ you _____ (**feel**) better, mummy? – Yes, I _____ (**do**) fine, thanks a lot.

12. It's impossible to understand why some people (**have**) particular talents and some do not.

Exercise 2.

Use the verbs in brackets to complete the sentences:

1. Our neighbours _____ (**live**) in Ankara five times in a year.

2. Her little child _____ (**eat**) a banana every morning.

3. Daniella's dolphin trainer. She _____ (**work**) at "Nemo" aquarium.

4. Those boys _____ (**ride**) their bikes to the park even every day.

5. Her grandfather _____ (**go**) to bed early in the evening.

6. His colleagues _____ (**drive**) to the office every day.

7. Diana _____ (**catch**) the train to the centre of the town in the afternoons.

8. Every weekend, Jane _____ (**write**) e-mails to her sisters in Paris.

9. Her sons _____ (**brush**) their teeth twice a day.

10. "Is her husband a firefighter?"

"No. He's a policeman. He _____ (**catch**) criminals in our region.

11. The shopping centre_____ (**open**) at nine in the mornings.

12. In the evenings, Harry _____ (**help**) his son with his homework.

Exercise 3.

Put the words in the correct order to make questions. Then answer them.

1.   for   /   do   /   have   /   breakfast   /   What   /   you   /   usually?
_____

2. your brother / or sister / How / get / his (her) / do / to / work (school)?
_____

3. does / often / your / evenings / What / grandmother / do / the / in?
_____

4.   friends   /   Do   /   go   /   your   /   playground   /   the   /   sometimes   /   to?
_____

5.   work   /   Does   /   in   /   his   mother   /   local   post   office   /   a?
_____

6.   nearest   supermarket   /   you   /   to   /   Do   /   walk   /   usually   /   your?
_____

7.   drive   /   a   /   mother   /   your   /   Does   /   car?
_____

8.   Do   /   the   /   watch   /   TV   shows   /   in   /   parents   /   evenings?
_____

9.   play   /   or   /   table   tennis   /   Do   /   you   /   tennis?
_____

10.   a   /   use   /   computer   apps   /   often   /   Do   /   at   /   you   /   work?
_____

11.   German   /   Does   /   your   /   speak   /   brother   (sister)?
_____

12.   live   /   Do   /   in   /   flat   /   a   /   or   /   a   /   house   /   your   grandparents?
_____

Exercise 4.

Use the right form of the verb in brackets.

1. The days _____ (**get**) longer now. The days _____ (**get**) longer from January to June.

2. She never _____ (**drink**) anything with her meals. – What _____ she _____ (**drink**)? – Only water.

3. My uncle often _____ (**talk**) to himself. Look, aunty Ann_____ (**talk**) to herself too!

4. – What's this terrible noise? – My neighbour _____ (**drill**) the walls. He _____ (**do**) it every weekend.

5. Many local old people _____ (**go**) to church on Saturdays and Sundays. But, what about you: where _____ you _____ (**go**) now?

6. Their family _____ (**go**) out a lot in the summer. They _____ (**go**) out this weekend.

7. Unemployment _____ (**rise**) at an alarming rate these days. Prices _____ (**rise**) after economic crises.

8. Kate can't come to the phone right now. She _____ (**wash**) her hair. She usually _____ (**wash**) it twice a week.

9. I wonder if Susan is on a diet. She _____ (**get**) thinner and thinner.

10. I ask you don't disturb my father, he _____ (**sleep**) after his night shifts.

11. Andrew _____ (**constantly talk**) in the office!

12. _____your father ever _____ (**work**) at the weekends?

Exercise 5.

Put the verbs in brackets into Present Simple OR **Present Continuous.**

1. My parents _____ (not / go) shopping on Sundays.

2. You know, my groupmate _____ (sit) nearby me here.

3. Mr. Brown_____ (wear) his new suit today.

4. _____ little Sofie _____ (like) eating chocolate candies?

5. What time _____ your daughter _____ (get up) at weekends?

6. Their children _____ (swim) in the pool now.

7. How often _____ he _____ (wear) his uniform?

8. How much _____ that skirt _____ (cost)?

9. Gregory _____ (study) at the local university.

10. What _____ your brothers _____ (do) at this moment?

11. Her uncle_____ (not / drive) a lorry.

12. Alfred _____ (live) in Ireland.

Exercise 6.

Choose the correct answer.

1. ……… Lola walk to the university every morning?

  A Does   **B** Do   **C** Is

2. It isn't snowing ………. .

  A often   **B** now   **C** usually

3. Her daughters ……… gets up early.

  A at the moment   **B** usually   **C** now

4. Nanna ……… video at the moment.

  A watch   **B** is watching   **C** watches

5. Do you …… to university?

  A walks   **B** walking   **C** walk

6. Tom and his younger brother……… staying in bed these two days.

  A are   **B** is   **C** am

7. They .... wear boots in the summer.

   A doesn't   **B** aren't   **C** don't

8. I often .... computer games at home after classes.

   A playing   **B** am playing   **C** play

9. My boss sometimes .... remarks at my expense.

   A make   **B** makes   **C** is making

10. I know he .... much but he isn't unfriendly.

   A don't say   **B** isn't saying   **C** doesn't say

11. Oh, the aircraft .... in the sky! Look!

   A is disappearing   **B** disappear   **C** disappears

12. Samuel never .... his mind, even he knows he's wrong.

   A change   **B** is changing   **C** changes

Exercise 7.

Put the verbs in brackets into Present Simple OR **Present Continuous.**

1. A: What _____ (they / **talk**) about?

 B: They _____ (**try**) to decide where to go on holiday.

2. A: John, I _____ (**need**) some help with my test.

 B: Later, Tom. I _____ (**have**) lunch now.

3. A: What _____ (Victor and Jane / **do**) at the moment?

 B: They _____ (**eat**) dinner with their parents.

4. A: _____ (it / **rain**) a lot in Ukraine?

 B: Yes, but this week the sun _____ (**shine**)!

5. A: _____ (you / **want**) to visit an art gallery today?

 B: I can't. I _____ (**do**) the tests in Spanish for tomorrow exam.

6. A: I usually _____ (**watch**) a film on Saturday evening.

 B: Really? You're lucky! I _____ (**have**) tennis lessons then.

7. A: What _____ (you / **think**) of my new coat?

 B: I _____ (**like**) the colour. Blue is really suits you.

8. A: Where _____ (Mary / **go**)?

 B: She _____ (**visit**) her uncle and aunt.

9. A: What _____ (Desmond / **do**) on Sunday mornings?

B: He _____ (**clean**) his room, but today he _____ (**visit**) his friends.

10. A: _____ (your dad / **go**) to work by car every day?

B: Not every day. Sometimes he _____ (**catch**) the bus or a taxi.

11. A: My little brother _____ (**hang out**) with his friends on Friday evenings.

B: _____ (he / **meet**) with his friends now?

Exercise 8.

Complete the sentences. Use Present Simple OR **Present Continuous.**

1. David (**not / read**) _____ the news online every day.

2. My parents (**shop**) _____ at the local market right now.

3. (**she / eat**) _____ dinner with her boyfriend at the moment?

4. You (**not / see**) _____ your groupmates every day.

5. Don't be noisy! The baby (**not / sleep**) _____ now.

6. Look! They (**leave**) _____ the house by Tom's car.

7. I (**not / read**) _____ her book now, you can bring it.

8. (**she / visit**) _____ her cousins very often?

9. We (**not / go**) _____ to language courses on Sundays.

10. Samantha (**do**) _____ her housework at the moment.

11. (**you / go**) _____ on holiday by plane sometimes?

12. Brandon (**cycle**) _____ for a long distance every day.

13. (**they / play**) _____ computer games in the evenings?

14. What (**they / do**) _____ in their room right now?

15. Our younger sister usually (**get up**) _____ early in the morning.

Exercise 9.

Write questions and answers, as in the examples.

*0. Helen (**to do**) the Geodesy Project right now. (**Yes**).*

Is Helen doing the Geodesy Project right now? – Yes, she is.

1. Henry (**to work**) in the centre of the city. - (**No**).

_____

2. We (**to write**) an English exercise right now. – (**Yes**).

_____

3. Your nieces (**to go**) to school on Saturdays? – (**No**).

_____

4. These girls (**to dance**) every day. – (**Yes**).

_____

5. Those boys (**to play**) in their room now. – (**Yes**).

_____

6. His parents (**to live**) in a village near the town. – (**No**).

_____

7. He (**to sleep**) after his night party now. – (**Yes**).

_____

8. They (**to read**) many books in Chinese. – (**No**).

_____

9. The children (**to eat**) a mushroom soup now. – (**No**).

_____

10. He (**to help**) his grandmother every day. – (**Yes**).

_____

11. Your cousin (**to play**) the violin well. – (**Yes**).

_____

12. Kate (**to dance**) on the stage now. – (**Yes**).

_____

Exercise 10.

Open the brackets using verbs in Present Simple OR **Present Continuous.**

1. You (**to read**) a magazine and (**to think**) about your holiday right now?

_____

2. When you usually (**to come**) home from office work? – I (**to come**) at five o'clock.

_____

3. Her father (**not to watch**) TV at the moment. He (**to sleep**) because he (**to be**) tired from his night shift.

_____

4. My aunt (**not to play**) the flute now. She (**to play**) the flute in the evening.

_____

5. We (**to sit**) in the waiting room at the dentist's now.

_____

6. Where your sister (**to work**)? – He (**to work**) at the grammar school.

_____

7. When you (**to listen**) to the news on the radio?

_____

8. You (**to play**) chess or checkers with your grandfather now?

_____

9. My mum (**not to drink**) coffee in the evening. She (**to drink**) it in the morning.

_____

10. Your groupmate (**to do**) his project now?

_____

11. My aunt (**not to work**) at the shopping centre.

_____

12. Look at the sky: the clouds (**to move**) slowly, the sun (**to appear**) from behind the clouds, it (**to get**) warmer.

_____

Exercise 11.

Fill in the verbs in brackets in the correct form either Present Continuous OR **Present Simple. Do not use contractions in this exercise.**

1. Don't shout. I _____ you perfectly. (**hear**)

2. Sometimes my daughter _____ to bed pretty late. (**go**)

3. My mum _____ such small cats. (**not / like**)

4. Those boys _____ severe their punishment. (**deserve**)

5. My friends _____ dinner at the restaurant now. (**have**)

6. Martin _____ for his friend in the park now. (**wait**)

7. What _____ about your partner proposal? (you / **think**)

8. Miss Johnson _____ your report at the moment. (**type**)

9. Why isn't she drinking her herbal tea? It _____ cold. (**get**)

10. They are wrong. My girlfriend _____ any guests in her house. (not / **expect**)

11. We cannot ask her right now. She _____ in her room. (**pray**)

12. We _____ to hear about this issue any more. (not / **want**)

Exercise 12.

Put the verb in brackets and form interrogative sentences in Present Continuous. Use long forms of the auxiliaries only as in the Example:

EXAMPLE:

*Jane (**to come**) home from work.*

Is Jane coming home from work?

1. Mike (**to swim**) in the pond at the moment.

_____

2. They (**to swap**) pictures in the exhibition hall.

_____

3. Diana cannot speak to you she (**to have**) a shower right now.

_____

4. My parents (**to save**) money for a new computer.

_____

5. Mathew (**to cut**) the grass in the garden.

_____

6. My son (**to run**) home to be in time till the football match.

_____

7. My colleagues (**to write**) letters to the Human Resources department.

_____

8. The English teacher (**to drive**) his car.

_____

9. Irena (**to dance**) with Alex in the middle of the hall.

_____

10. Her grandchildren (**to bake**) an apricot pie in the kitchen.

_____

11. They (**to eat**) dinner with their grandparents.

_____

12. We (**to return**) to the hotel by the taxi at the moment.

_____

PAST SIMPLE TENSE

Past Simple Tense – минулий простий час англійської мови, вживається для позначення дій, що відбулись у минулому часі.

Дієслово *to be* у **Past Simple Tense**

➕	➖	❓
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 …?

Утворення Past Simple Tense

➕	➖	❓
I walked	I didn't walk	Did I walk?
You walked	You didn't walk	Did you walk?
He / She / It walked	He / she / it didn't walk	Did he / she / it walk?
We walked	We didn't walk	Did we walk?
You walked	You didn't walk	Did you walk?
They walked	They didn't walk	Did they walk?

Утворення форми минулого часу правильних дієслів

Якщо інфінітив або початкова форма дієслова закінчується на *-e* **або** *-ee*, **то додаємо** *-d*:

    to sale – sal**ed**   to disagree – disagr<u>ee</u>**d**

Якщо дієслово закінчується на одиночний приголосний звук, перед яким в слові стоїть короткий наголошений голосний звук, то на письмі приголосна буква подвоюється + *-ed*:

    to submit – submi<u>tt</u>**ed**   to drop – dro<u>pp</u>**ed**

Виняток: кінцева *-x* ніколи не подвоюється: to fi<u>x</u> – fix**ed**

Якщо дієслово закінчується на *-r*, **останній склад наголошений і не містить дифтонгу, то кінцевий** *-r* **подвоюється +** *-ed*:

    to prefer – prefe<u>rr</u>**ed**   to clear – clea<u>rr</u>**ed**

Якщо інфінітив закінчується на *-l*, **перед яким у слові стоїть короткий голосний, то** *-l* **подвоюється +** *-ed*:

    to signal – signa<u>ll</u>**ed**   to travel – trave<u>ll</u>**ed**

Пам'ятаємо, що після довгого голосного або двох голосних *-l* **не подвоюється:**

    to cool – cool**ed**

Якщо в кінці слова стоїть *-y*, **перед яким голосний, то** *-y* **не змінюється +** *-ed*:

    to stay – stay**ed**

Якщо в кінці слова стоїть *-y*, **перед якою літера, що позначає приголосний звук, то** *-y* **змінюється на** *-i* **+** *-ed*:

    to marry – marr<u>i</u>**ed**   to try – tr<u>i</u>**ed**

В усіх інших випадках до інфінітива просто додаємо закінчення *-ed*:

    to want – want**ed**

Past Simple Tense неправильних дієслів

✚	➖	❓
I drove	I didn't drive	Did I drive?
You drove	You didn't drive	Did you drive?
He / She / It drove	He / she / it didn't drive	Did he / she / it drive?
We drove	We didn't drive	Did we drive?
You drove	You didn't drive	Did you drive?
They drove	They didn't drive	Did they drive?

Правопис неправильних дієслів перевіряємо за таблицею (див. <u>Irregular verbs</u> у додатках).

ВЖИВАННЯ PAST SIMPLE TENSE

1.   Дія розпочалась і завершилась у минулому.

We watched that video yesterday.

Last week, Jerry travelled to Rome.

2.   Дії у минулому, що відбувались одна за одною.

Mike finished work, walked to the cafe, and found a nice place to eat out alone.

Mr Teo arrived from the London airport at 11:00, checked into the hotel at 12:00, and met his partners at 14:00.

PAST CONTINUOUS TENSE

Past Continuous Tense – вказує на процес, що тривав у певний момент або період у минулому. На відміну від Past Simple Tense, цей момент називаємо прямо, а не опосередковано (наприклад, *yesterday at 7 o'clock, when he called, when snow started*) або він є зрозумілим з контексту.

Утворення Past Continuous Tense

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

*Для утворення *Past Continuous Tense* необхідно вжити дієслово *to be* у минулому часі (*Past Simple Tense*) та дієприкметник основного дієслова у теперішньому часі (*Participle I*).

ВЖИВАННЯ PAST CONTINUOUS TENSE

1. **Вказівка на процес, що відбувався у конкретний момент часу у минулому:**

In the afternoon the library wasn't working.

2. **Дві і більше дії відбувались одночасно:**

Grandmother was baking a pie when I was fixing her hair dryer.

3. **Одна дія тривала (відбувалась), а інша її перервала:**

We were sleeping when someone knocked at the window.

Зверніть увагу, та дія, яка перервала, коротша за тривалістю, виражається за допомогою *Past Simple Tense***.**

USED TO & WOULD

Used to – один із модальних дієслів в англійській мові (або напівмодальних дієслів), використовується лише у формі минулого часу.

Утворення минулої форми з used to

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

Donna used to go to the swimming pool every week.

My parents did not use to use a telephone as a common thing when I was two.

Did your friends use to visit you at home often?

ВЖИВАННЯ USED TO & WOULD

1. *Used to* **виражає дію, що постійно повторювалася в минулому і набула характеру звички, проте на даний момент вона вже не діє або не є актуальною**.

Martin used to study Chemistry.

Mr Gregory used to go on a business trip every month.

2. *Used to* **також може використовуватися для передачі явищ та подій, що були актуальними для минулого (відбувалися в минулому), але вже не відбуваються зараз.**

My cousin used to live in Tokyo.

Patrick used to be thin, but now he is well-build person.

Susan used to be the best pianist in class, but now Kim is the best one.

3. **Події в минулому, що повторювалися, можна також висловити за допомогою модального дієслова** *would***.**

This couple would sit and watch the sunset in the evenings.

Але *would* **використовується лише у випадках, коли дієслово позначає тривалу дію та не є статичним (тобто, з дієсловами** *to hate***,** *to think* **та ін. його використовувати не можна).**

Exercise 1.

Make the Past Simple (positive, negative or question).

1. What _____ (she / **give**) her boyfriend for Christmas?

2. Britany _____ (**have**) a shower 10 minutes ago.

3. What time _____ (your flatmate / **get up**) yesterday?

4. Zack _____ (not / **study**) for the final exam.

5. _____ (they / **go**) to the party last Friday?

6. My little sister _____ (**wake up**) very late this morning.

7. I _____ (not / **drink**) any coffee last night but couldn't sleep well.

8. Mary _____ (**receive**) £15000 when my uncle died.

9. She _____ (not / **use**) the computer last night.

10. We _____ (**get** on) the bus in the centre of the city.

11. Where _____ (his sisters / **get off**) the train?

12. What time _____ (the film / **start**)?

Exercise 2.

Open the brackets and use the correct forms of Past Simple.

1. Olga _____ (**work**) abroad last summer.

2. Usually the train _____ (**leave**) at 9 o'clock last year.

3. Her nephews _____ (**go**) to the seaside last August.

4. My friends _____ (**visit**) me regularly last month.

5. Our children usually _____ (**ask**) many questions yesterday.

6. She _____ (**know**) five languages when she was a student.

7. As a rule they _____ (**go**) to university by bus last two weeks.

8. Who _____ (**take**) her textbook yesterday?

9. Thomas _____ (**not like**) poems when he was a schoolboy.

10. Our grandparents _____ (**live**) in Melitopol 4 years ago.

11. Last autumn my father _____ (**work**) at that factory.

12. Our children _____ (**not like**) classical music at school.

Exercise 3.

Put the sentences from the Present into the Past Simple.

1. Mr. Grey usually <u>looks</u> through two newspapers every day. But he only _____ a newspaper yesterday.

2. Her sons usually <u>go</u> to the cinema on Sunday. They _____ to the cinema last Sunday, too.

3. Sally <u>writes</u> a letter to Paul every week. Last week she _____ two letters.

4. Nicky <u>meets</u> her boyfriend every evening. She _____ him yesterday evening, too.

5. His grandmother always <u>gets</u> up early. This morning she _____ up late.

6. His children <u>leave</u> home at 8.30 every morning. But yesterday they _____ home at 8.00.

7. Our children <u>play</u> games in the playground. But yesterday they _____ because it was raining.

8. Your parents usually <u>do</u> their shopping on Friday. They _____ their shopping last Friday, too.

9. Your teacher always <u>gets</u> to work by car. Yesterday he _____ to work by bus.

10. Jack always <u>takes</u> a shower in the morning. He _____ a shower this morning, too.

11. Olivia often <u>loses</u> her key. She _____ one last week.

12. The Reaves <u>buys</u> a new car every year. Last year they_____ a new car, too.

13. Frank <u>eats</u> a banana every day. Yesterday he _____ two bananas.

14. Kelly often <u>takes</u> photos. Last weekend she _____ some photos, too.

Exercise 4.

Fill in *was* **or** *were* **into the gaps.**

1. There _____ a funny show on TV at prime time. (-)

2. Her granddaughters _____ in the UK three years ago.

3. _____ Adam at home when you came back from work?

4. Where _____ they on September 2nd?

5. Charly and I _____ at amusement park last Saturday. (-)

6. When Daniela _____ a child, she _____ afraid of dogs.

7. Our grandparents _____ at the local market two days ago.

8. What _____ her biggest success as a professional?

9. His aunt _____ at home when they broke into her flat. (-)

10. Winter _____ really warm and dry this year.

11. Oliver _____ a popular football player of the local football club.

12. _____ there a special sport event for children?

Exercise 5.

Use the Past Continuous to complete the sentences.

1. That interior designer_____ their house. (**decorate**)

2. Her sisters_____ their favourite Disney cartoons. (**watch**)

3. Aunt Floe _____ the floor. (**sweep**)

4. A lot of schoolchildren_____ at the bus station. (**wait**)

5. Their grandparents _____ tricky table games. (**play**)

6. Mr Simpson _____ in our office. (**work**)

7. That boy _____ leaflets. (**hand out**)

8. Their children _____ to school. (**walk**)

9. _____ on the beach? (they / **sunbathe**)

10. When he looked at Lucy, she _____ (**smile**).

11. Our volleyball team _____ outside when it started to rain. (**play**)

12. Miss Molly _____ yesterday afternoon. (**work**)

13. The Johnsons _____ our messages. (not **read**)

14. Little Polly _____ in the sun. (**sit**)

15. _____ in the pond with your friends? (you **swim**)

Exercise 6.

Complete the sentences with the Past Simple or Past Continuous.

1. Our neighbours _____ (**have**) a party while their babies _____ (**sleep**).

2. Grandmother _____ (**cook**) breakfast when the electric kettle _____ (**blow**) up.

3. Mummy _____ (**do**) the ironing when granny _____ (**phone**) her.

4. When my partner _____ (**come**) into the office, my boss _____ (**wait**) for him.

5. When we _____ (**see**) Diana, she _____ (**drive**) a sport car.

6. While John _____ (**mow**) the lawn, it _____ (**start**) to rain.

7. Uncle Martin _____ (**wait**) in his car while aunt Polly and I _____ (**do**) the shopping in the supermarket.

8. When sister _____ (**arrive**), we _____ (**have**) a family dinner.

9. The Bonds _____ (**wait**) at railway station when the train _____

(**arrive**).

10. They _____ (**have**) late lunch when the doorbell _____ (**ring**).

11. While the boys _____ (**play**) tennis, we _____ (**go**) swimming.

12. Oscar _____ (**take**) a photo when little Sofie _____ (feed) the funny racoons.

13. Grandmother _____ (**knit**) the socks while grandfather _____ (**smoke**) his pipe in the terrace.

14. The team _____ (**play**) baseball when the lights in the stadium

_____ (**go**) out.

15. While his children _____ (**clean**) their room, he _____ (**fix**) his bike in the garage.

Exercise 7.

Fill in the gaps with the words in brackets in Past Continuous or Past

Simple.

1. While we_____ to the radio somebody _____ at the door. (**listen / knock**)

2. My friends _____ wine every day when they_____ in France. (**drink / be**)

3. While that scientist _____ the research in his laboratory his colleague _____ to see him. (**do / come**)

4. When the war _____ out our relatives_____ in Belarus. (**break / live**)

5. Natalie _____ a little black dress when he _____ her yesterday. (**wear / meet**)

6. When the farmer _____ rye he _____ many airplanes in the sky. (**harvest / see**)

7. Harry _____ his motorbike very fast when the accident _____. (**ride / happen**)

8. When the Grams _____ in that house their little son _____ very ill. (**live / be**)

8. At 10 pm his daughter still _____ her homework. (**do**)

10. Her grandchildren _____ dinner when she _____ home. (**have / return**)

11. He just _____ for his wife when his mother _____. (**wait / come**)

12. The telephone _____ while Nancy _____ her bath. (**ring / have**)

13. It _____ to snow when her parents _____to go out. (**begin / start**)

14. Little Paul _____ his knee badly when he _____ his bicycle

yesterday. (**hurt / ride**)

15. Our friends_____ badminton when we _____ there. (**play / get**)

Exercise 8.

Put the verbs into the correct tense (Simple Past OR Past Continuous).

1. Franky (**jog**) _____ in the stadium, when two little children (**cross**) _____ his way.

2. When my grandparents (**travel**) _____ around Ukraine, they (**meet**) _____ a lot of hospitable and friendly people.

3. My mum (**bake**) _____ an apple pie while I (**take**) _____ a bath.

4. While Emile (**speak**) _____ on the phone, the soup (**boil**) _____

over.

5. Raul (**burn**) _____ his hand when he (**iron**) _____ his clothes.

6. When our child (**leave**) _____ the house this morning, the sun (**shine**)

_____ brightly.

7. Uncle Lenny (**fall**) _____ off the ladder when he (**pick**) _____cherries.

8. Clarissa _____ (**play**) the piano when the teacher (**enter**) _____ the hall.

9. Aunt Sally (**hurt**) _____ her back while she (**work**) _____ in the garden.

10. We (**enjoy**) _____ the party, but Chloe (**want**) _____ to go home.

11. Matt (**phone**) _____ while we (**do**) _____ fitness exercises.

12. Our neighbours (**cycle**) _____ home from sport event while we (**arrange**) _____ a picknick in the yard.

Exercise 9.

If it's possible, make a sentence with ‘would+infinitive’. If it's not possible, use ‘used to+infinitive’:

1. Whenever Ronald was angry, he _____ walk out of the office.

2. Greg _____ play tennis a lot, but he doesn't play very much now.

3. This building is now a coffee shop. It _____ be a furniture shop.

4. My uncle Mike _____ drink a cup of green tea after every dinner.

5. They have started drinking vitamins recently. They never _____ like it before.

6. Her family _____ often go hiking for the weekend when she was a child.

7. His brother _____ always lose when he played cards with me.

8. Denis _____ have a motorbike.

9. Sofie _____ be able to run fast very well.

10. My relatives _____ live in Spain.

Exercise 10.

Choose the correct answer in brackets.

6. There never _____ be a tea shop in this street. (**use to / used to**)

2. Nick doesn't travel much now. She _____ travel a lot, but she prefers to stay at home these days. (**used to / did use to**)

3. Uncle Frank didn't _____ live in this village. (**use to / used to**)

4. The Browns _____ often go on holiday to the ocean. (**wouldn't / didn't use to**)

5. As a first-year student, he never _____ have any money. (**used to / would**)
6. Anna _____ as a nurse for many years. (**used to work / worked**)

7. Her granny _____ always read fairy-tales to her before bed. (**used to / would**)

8. When he was a child, he _____ have a parrot. (**used to / would**)

9. Jackie _____ my best friend, but we aren't good friends any more. (**use to be / used to be**)

10. Did they _____ like playing basketball at school? (**use to / used to**)

Exercise 11.

For each of the following sentences, choose either "used to" **or** "would"**. If both are possible, use** "would"**.**

1. At the beginning of my friends' marriage, they _____ be very happy - but then it all went wrong!

2. Years ago, she _____ write a short story every day but then she got bored with doing it and she stopped. Maybe it was her life that was boring!

3. Samuel _____ ride a bicycle everywhere, before getting his driving license.

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4. Do you remember how your granny Maria _____ sit in that arm chair and knit those soft socks?

5. They _____ spell so well. Whatever happened?

6. His mother _____ have a monkey when she was a young girl, didn't she?

7. When Helen was ten, she _____ be able to do judo well. Now she can't even touch her toes.

8. For some years, they _____ go on holiday to the night club, but then it became very fashionable place and, hence, expensive.

9. There _____ a hotel near the airport, but it closed a long time ago.

10. I _____ read detective stories a lot, but I don't do it now.

Exercise 12.

Choose the correct forms to complete the sentences below.

1. What fruit _____ to like to eat when you were a child?

  A used you   **B** did you used   **C** did you use

2. Steven _____ his left knee in a skiing accident when I was 21.

  A used to hurt   **B** hurt   **C** use to hurt

3. Her grandparents _____ in the city, but now they live in the country.

  A use to live   **B** used to living   **C** used to live

4. My family's friends _____ to the art galleries or exhibitions at weekends.

  A usually go   **B** don't used to go   **C** use to go

5. Albert and his close friends _____ in a rock band.

  A used to play   **B** used to playing   **C** use to play

6. We _____ the plum pie mother made us last Sunday.

  A didn't used to love   **B** used to love   **C** loved

7. My brother _____ listen to lyric music when he was a child.

  A usedn't to   **B** didn't use to   **C** didn't used to

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8. Mary _____ very tall girl when she studied in primary school.

  A used not to be   **B** didn't use to be   **C** didn't used to be

9. _____ have long fair hair when you were younger?

  A Did you used to   **B** Used you to   **C** Did you use to

10. I _____ my dog very early from Mondays till Fridays.

  A walk   **B** use to walk   **C** don't use to walk

Exercise 13.

Use either "used to" or the Past Simple to complete each of the sentences.

1. Paul _____ (**drink**) coffee, but now he drinks only black or herbal tea.

2. Greg's sister _____ (**play**) cars when she was a child.

3. How many hours a day did you _____ (**spend**) to play the drums when you were in a school band?

4. Harry _____ (**be**) a lot happier as a single man, but then he got married with Lucy and had three children and her crazy relatives!

5. They _____ (**eat**) tuna sandwiches for breakfast today.

6. We _____ (**see**) your groupmates at the cafe doing a physics project. They told us to say hello to you.

7. Her boy-friend Dilan _____ (**smoke**), but now he does.

8. Did your daughters _____ (**take**) a lot of photos when they were in Rome last week?

9. Jack _____ (**compete**) in European tour two years ago.

10. His nephew _____ (**do**) his homework at once after his classes yesterday.

11. Designers _____ (**work**) hardly on fashion week this year.

12. Helen _____ (**learn**) psychology of family relationship but now she learns sociology.

13. There _____ (**be**) five shopping malls in this town, but three closed down

leaving only two.

14. If you look over there, you can see the building where the famous 1980s' singer _____ (**live**).

15. Adolescents never _____ (**talk**) so aggressively to their parents. It's terrible!

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

ANOTHER **вживається перед злічуваними іменниками в ОДНИНІ, у значенні «ще один», «інший».**

When she hears the loud music on the radio, she immediately turn over to **another** wave.

OTHER **вживається перед іменниками у МНОЖИНІ, коли ми говоримо про людей або речі, які додаються до тих, що ми вже знаємо.**

The clothes are usually cheap here but **other** clothes shops are very expensive here.

OTHERS **вживається ЗАМІСТЬ ІМЕННИКА, коли ми говоримо про людей або речі, які додаються до тих, що ми вже знаємо.**

Some jokes are funny in this show, but **others** are shocking or annoying.

THE OTHER **вживається перед злічуваними іменниками в ОДНИНІ та МНОЖИНІ, у значенні «не цей» або «той, що залишився». Зверніть увагу, ми використовуємо the other, коли в нас не більше двох речей.**

Dinamo Kyiv played very well but **the other** team wasn't bad either.

THE SECOND **вживається у значенні «другий», «інший», коли речей більше ніж дві, або ми їх перераховуємо по порядку.**

The winner's score was 125 points, **the second** player scored 110, and the third got below 100 points.

THE OTHERS **вживається ЗАМІСТЬ ІМЕННИКА У МНОЖИНІ, у значенні**

«не цей» або «той, що залишився».

One of the drivers survived the crash but **the others** died.

A/AN & ONE(S)

A/AN вживаємо, коли кажемо про будь-який (неозначений) предмет

The parents gave their son **a** puppy.

ONE(S) вживаємо:

Коли хочемо підкреслити кількість:

They bought **one** little puppy.

Зі словами *night /morning /day /time*, **коли розповідаємо історії:**

One evening, we decided….

Використовуємо *one, one of* **(один з), коли хочемо виділити одного з великої кількості, досить часто на противагу використовуємо** *the other(s)* **– інші:**

One man was short, but **the others** were rather tall.

Щоб уникнути повторів використовуємо:

one –для однини

ones – для множини

His new car is much nicer than his old **one**. (= his old car)

Leo is not interested in hip-hop dancing, except for disco **ones**. (= disco dancing)

Без зміни значення можна використовувати або *a/an* **або** *one(s),* **коли кажемо про час, відстань, вагу та ціну.**

They will be absent for **an/one** hour.

The bus stop is **a/one** kilometer away.

The boxer weighs **a/one** hundred kilos.

BOTH/NEITHER – ALL/NONE

BOTH/NEITHER

Використовуємо, коли кажемо про двох людей, або дві речі.

Both – **використовуємо у позитивному значенні; тільки з МНОЖИНОЮ.**

Both girls/ **Both the** girls/ **Both of the** girls/ **Both of them** are talented tennis players.

Neither – **використовуємо у негативному значенні; з одниною і множиною.**

Neither pencil is expensive.

Neither of the pens / **Neither of them** are expensive.

ALL/NONE

Використовуємо, коли кажемо про трьох і більше людей, або три і більше речі.

All – **використовуємо у позитивному значенні; тільки з МНОЖИНОЮ.**

All the women/ **All of the** women/ **All of them** wanted to be at the party.

None – **використовуємо у негативному значенні; з одниною і множиною.**

None of these sauces are tasty.

ПІСЛЯ NEITHER ТА NONE НІКОЛИ НЕ БУДЕ ВИКОРИСТОВУВАТИСЬ ДОПОМІЖНЕ ДІЄСЛОВО З ЧАСТКОЮ NOT

Neither pencil isn't expensive. / **None of** these sauces aren't tasty.

EACH/EVERY

Each	Every
Дві або більше речей We **each** got a prize.	**Три або більше речей** That family show is **every** Sunday.
У значенні кожний окремо **Each** CD cost enough to buy them at once.	**У значенні один як всі (група людей)** **Every** woman agreed. (=All women)
Може стояти перед основним дієсловом Their sons **each** <u>got</u> a toy car.	**Використовується у значенні how often** The Smiths travel around California **every** summer.
Може використовуватись з of Mother brought glasses of orange juice the **each of** the guests.	

RELATIVE CLAUSES

Relative clause – підрядне означальне речення.

Утворюється за допомогою відносного займенника (*who / which / that*), який вказується на початку підрядного речення після означеного слова.

Relative clauses буває двох типів:

- **Defining relative clauses** (уточнюють значення означеного слова):

- **Non-defining relative clauses** (надають додаткову інформацію про означене слово)

Defining relative clauses

who / that **вживається, коли мова йде про людей:**

The clerk **who / that** comes to this office at 8 is the most responsible there. –

("*Who / that comes to this office*" говорить про те, який саме службовець.)

which / that **вживається, коли мова йде про речі, поняття:**

The music hall **which / that** they prefers is in the main street.

Subject and Object Relative Clauses

who / which / that **можуть бути відсутніми, якщо вони є об'єктом**

The housekeeper (**who**) they fired a week ago has already been hired to the hotel next to them.

Якщо відносний займенник є суб'єктом, він залишається.

The housekeeper **who** fired a week ago has already been hired to the hotel next to them..

Non-defining Relative Clauses

Вживається, щоб надати додаткову інформацію про людину або предмет:

Jeremy, who is your best friend, is going to leave the county soon.

У цьому типі речень Relative clause виділяється комами.

«*That***» як альтернатива для «***who***» і «***which***» не вживається.**

Означальне підрядне речення може відноситись не тільки до окремого слова, а й до повного головного речення. Таке підрядне речення може додаватись лише за допомогою сполучника «*which***» й тільки після головного речення:**

Paula never admits their remarks, **which** is extremely strange.

Exercise 1.

Choose *another, other, others, the other, the others* **to complete the sentences below.**

1. Where is _____ sock? There is only this one in my bag.

2. Some politicians voted 'yes', some of them voted 'no', and _____ didn't vote.

3. I ask you to forget about it right now. We have _____ issues to solve nowadays.

4. We would like to order _____ cappuccino, please.

5. Propose me _____ salad if you want. I can estimate it with pleasure.

6. I think we should read _____ projects with our partners.

7. Kelly has two nephews. One is short and unattractive but _____ is tall and handsome.

8. Joseph has visited the museums in France, Italy and many _____ countries.

9. Our tutor talked to these students, but he hasn't talked to _____ students of this group yet.

10. Only two screens work in this cafe, all the _____ don't.

11. You didn't like that magazine? I have some _____ magazines you can read.

12. We can't meet them today. Let's do it some _____ time.

Exercise 2.

Choose the correct word and fill the gaps:

1. My girlfriend has two siblings. One is her brother and _____ is her sister.

 a) the other   **b)** another   **c)** the others   **d)** others

2. There were very few participants in the contest, so the presenter asked where

_____ were.

 a) another   **b)** the others   **c)** the other   **d)** others

3. Our partner is here. Where are _____?

 a) the other   **b)** others   **c)** another   **d)** the others

4. _____ may laugh at our poor Edward, but I like him.

 a) Others   **b)** The other   **c)** Another   **d)** The others

5. That's a horse of _____ colour. (proverb)

a) the others **b)** the other **c)** another **d)** others

6. Larry's son has a very strange nature. On the one hand he is ambitious and adventurous, on _____ hand he is shy and calm.

 a) others **b)** the others **c)** the other **d)** another

7. Where will my brother be in _____ five years, I mean five years from now?

 a) the other **b)** another **c)** others **d)** the others

8. Would you like to drink _____ cup of elite green tea?

 a) others **b)** the other **c)** another **d)** the others

9. Which of the two films will you recommend me to watch with my wife? - Neither. One of them is boring and _____ is very scary and sad.

 a) the others **b)** the other **c)** another **d)** others

10. As I can see this is not a good laptop. Could you show us _____ one?

 a) the others **b)** another **c)** the other **d)** others

11. Uncle Bens adores spending money which belongs to _____.

 a) the other **b)** others **c)** another **d)** the others

12. His girl-friend lives on _____ side of that avenue.

 a) another **b)** others **c)** the others **d)** the other

13. Our neighbour is very sensible; he may be _____ Albert Einstein.

 a) the others **b)** another **c)** the other **d)** others

14. Those couple of teenagers look so much alike that it is hardly ever to tell one from _____.

 a) another **b)** the others **c)** others **d)** the other

15. My aunt doesn't like this jacket. Could you show her_____ one?

 a) the other **b)** another **c)** the others **d)** others

Exercise 3.

Do you know when to use "a/an" **or** "one" **before the noun? Choose the correct word.**

1. If you say, "'We've got one informative documentary about geodesy" - I think:

 (**you only have one informative documentary about geodesy** (**all the others are useless and boring**) / **you have an informative documentary about geodesy which is informative** (**and maybe you have other informative documentaries as well**)

2. Their flatmates suggest going to the soft rock concert tonight. They like that idea and say "It's (**a / one**) _____ good idea."

3. You're in a MacDonald's. You say, "Can I have (**a / one**) _____ cheeseburger please?''

4. Daniel has (**a / an**) _____ university degree in Ecology.

5. Leo's saving for a new motorbike. In fact, he's saved exactly (**an / one**) _____ thousand dollars.

6. Her niece is studying for (**a / an**) _____ PhD now.

7. Does that young person have (**a / one**) _____ bachelor's degree?

8. Nancy's got about (**an / one**) _____ hundred friends on Instagram.

9. The seller might reply about a pair of shoes, ''Which (**one / ones**) _____ would you like?''

10. Mr Tailor has (**a / one**) _____ old sewing machine.

Exercise 4.

Choose the correct word.

1. _____ friend of her lent me a reference book on geodesy.

 a) A   **b)** An   **c)** One

2. There was _____ woman here, the rest were men and children.

 a) a   **b)** an   **c)** one

3. The old woman we met on the trolley bus told us _____ rather unusual story.

 a) a   **b)** an   **c)** one

4. _____ of our colleagues advised us to take photo of the experimental model.

  a) A   **b)** An   **c)** One

5. My son has told you _____ hundred times not to enter his room without knocking.

  a) a   **b)** an   **c)** one

6. It's easy to light three cigarettes with _____ match.

  a) a   **b)** an   **c)** one

7. After working day Nike seemed to have _____ inexhaustible state.

  a) a   **b)** an   **c)** one

8. It was _____ great help to me.

  a) a   **b)** an   **c)** one

9. They will repay us in _____ day.

  a) a   **b)** an   **c)** one

10. We can't help you we've got only _____ dictionary and Mary has took it.

  a) a   **b)** an   **c)** one

Exercise 5.

Choose the right word.

1. Are these his jeans? No, _____ are Michael's.

  a) the blacks   **b)** black ones   **c)** the black one   **d)** the black ones

2. Do you prefer green tea or _____?

  a) the black one   **b)** black ones   **c)** black tea   **d)** black one

3. My son has grown up and he needs new trousers, _____ are too short and small.

  a) the old   **b)** the old one   **c)** old ones   **d)** the old ones

4. The yellow skirt goes well with the blue blouse and _____ doesn't.

  a) the red one   **b)** the red's   **c)** the red   **d)** the red ones

5. There are five orange flowers and three _____ in that vase.

  a) red   **b)** the red ones   **c)** red ones   **d)** red one

6. Those cups are old. We need _____.

 a) a new   **b)** new ones   **c)** new one   **d)** new

7. These regulations aren't very important but we ought to pay attention to _____

 a) these ones   **b)** this ones   **c)** these regulations

8. The water in the bowl in the sun is warmer and _____ in the shadow is cooler.

 a) the one   **b)** the water   **c)** the ones

9. Jane prefers imported dresses instead of _____.

 a) local   **b)** local one   **c)** local ones

10. Frank has got black hair and Mr Brown's got _____

 a) grey hair   **b)** grey ones   **c)** grey one

Exercise 6.

Fill in the gaps using *both / both of them/us*, *neither / neither of them/us*.

1. I asked two people the way to the station, but _____ could help me.

2. Aunt Lily bought two lipsticks yesterday but _____ lipstick was very good.

3. My mother couldn't decide which of the two caps to buy. _____

suited her perfectly.

4. My sisters went to see a play last Sunday but _____ liked it.

5. My cousin and I are so alike. _____ have the same colour hair and eyes.

6. Martin tried twice to phone Carl, but _____ times he was out.

7. Hanna and Simon went to the concert together last Saturday but _____ had a good time because they didn't like the classical music.

8. _____ Sam's parents is American. His father is Spanish, and his mother is Italian.

9. Emily has got two sisters and a brother. Her brother is working, but _____ her sisters are still at collage.

10. 'What day is it today - the 15th or the 16th?' '_____. It's the 17th.'

11. 'Shall we sit in the corner or by the window?' '_____. I don't mind.'

12. We had a proposition to go to two countries. We went to _____. A week in France and a week in Germany.

Exercise 7.

Fill in the gaps with *both*, *all*, *neither* **or** *none*.

1. A: Why did those girls upset?

B: They invited their new boyfriends to eat out but _____ of them refused.

2. A: Clark has got some cousins but _____ of them live abroad.

B: Has he ever visited them there?

3. A: Have you found anyone to go to the psychology lecture with?

B: I asked three of my aunts and _____ of them agreed.

4. _____ they have eaten today is some bananas.

5. Ms Klara never goes out. She is at home _____ the time. It's so curious and strange.

6. Children played actively late in the evening but _____wants to go to bed.

7. A: Have you seen Zack and Ann?

B: Not today! They've _____ gone to Rome for the weekend.

8. I've spent _____ the money you gave me.

9. I didn't have much money with me. _____ I had was ten pounds.

10. A: Did his uncle buy him anything in Berlin?

B: Yes, he bought him two white shirts but _____ of them fit.

11. A: Do you still live with your boyfriend?

B: I live with him, but my sisters are not _____ married and live with my parents.

12. I was _____ tired and hungry when I arrived home.

Exercise 8.

Choose the correct word and fill the gaps:

1. _____ of the DVDs are yours. They are John's.

  a) Neither   **b)** None   **c)** All

2. _____ need love and attention, and your cousins are no exception.

  a) All the teenagers   **b)** All teenagers   **c)** None teenagers

3. Have we got any onions left? No, there are _____.

a) none   **b)** neither   **c)** all

4. _____ we had gone sour, and we had to shut down.

  a) none of the milk   **b)** all milk   **c)** all the milk

5. _____ the tickets for the tournament were sold.

  a) Neither   **b)** All   **c)** None

6. They have four daughters but _____ of them lives nearby.

  a) none   **b)** all   **c)** neither

7. Do you prefer herbal tea or mint one? _____. I always drink only green tea.

  a) Neither   **b)** None   **c)** All

8. Are there any tomatoes? No, there are _____.

  a) none   **b)** all   **c)** neither

9. Aunt Rosa gave us three motorcars, and _____ works. They seem broken.

  a) they all   **b)** all of them   **c)** none of them

10. These jeans are really nice, but _____ one fits her well.

  a) both   **b)** all   **c)** neither

Exercise 9.

Choose *Each / Every* **and complete the sentences.**

1. Polly plays badminton _____ Friday evening.

2. Their parents enjoyed _____ day of their winter tour.

3. That book was divided into eight parts and _____ of them has four sections.

4. During last horse racing they lost $25 _____.

5. There is a bus _____ 2 hours.

6. There's a speed train to London _____ hour.

7. That café is open _____ day except Thursday.

8. The university's volleyball team is playing well. They've won _____ game through the local tournament this season.

9. There are four worksheets on the desk - please take one of _____.

10. Mathew understood most of what his Japanese partner said but not _____ word.

11. _____ student has written an e-mail during the English lesson.

12. They _____ have their own e-mail address for working on educational portal.

13. _____ of the students has three books for computer sciences.

14. _____ answer is worth 3 points but none of them was not interested in it.

15. There are nine apartments in this building. _____ one has a balcony.

16. The president election is held _____ four years.

17. In a tennis game there are 2 or 4 players. _____ player has a racket.

18. Those mangos cost 120 cents _____.

19. He tried to phone her two or three times, but _____ time there was no reply.

20. Silvester has read _____ book in the village library.

Exercise 10.

Add the phrase in brackets to the sentence using '*that*' or '*who*' and a relative clause:

1. The Smiths called a nurse (the nurse lived next building)

_____

2. We sent that presentation to our manager (he was on a business trip)

_____

3. The guests liked the receptionist (the receptionist was very polite and attentive)

_____

4. Morrison worked for an old man (the old man used to be a famous scriptwriter)

_____

5. The woman is in the car parking (the woman is wearing a pink dress and a white cap)

_____

6. The tablet was stolen (the tablet was a birthday gift for her son)

_____

7. Jacky broke the Chinese vase (the Chinese vase belongs to his grandmother)

_____

8. The armchair was fixed (the armchair was my favourite one)

_____

9. Her daughter dropped a dish (the dish was vintage)

_____

10. The porter was impolite (the porter was grey haired man)

_____

11. His mother adores books (the books have unexpectable endings)

_____

12. The lorry is in the garage (the lorry belongs to Greg)

_____

13. My aunt has two children (they live in the northeast Africa)

_____

14. My colleague lives in a village (the village is not far from the city)

_____

15. The teacher works in that college (the teacher is from Sheffield, north England)

_____

Exercise 11.

Add the phrase in brackets to the sentence using a relative clause. If it's possible, you should drop the relative pronoun:

1. The handsome man is on TV show tonight (we met the man in the train two hours ago)

_____

2. The boss fired the manager (we had signed the agreement the manager)

_____

3. Simon ate the fruit salad (the salad had kiwi, banana, pineapple and yoghurt)

_____

4. Her little daughter broke the vintage dish (the dish was our parents' heritage)

_____

5. Stephan called the hotel receptionist (he lived next door to the hotel receptionist)

_____

6. The Korean k-drama was very funny (Emile recommended to watch the k-drama)

_____

7. The fantasy manga is in his rucksack (the fantasy manga was Japanese)

_____

8. The housekeeper fixed the doorhandle (my son broke the handle one hour ago)

_____

9. Melanie often wrote e-mails to her business partner (her business partner worked for trade company in Norway)

_____

10. Her boy-friend lives in Poland (her boyfriend is a famous football player)

_____

11. The garlic bread was very old and stale (mum bought the bread three days ago)

_____

12. The short video was very informative (the short video was about Japanese cultural centre in our city)

_____

13. His wallet was stolen in the café (he bought the wallet last month in Madrid)

_____

14. The police arrested the man (Denis saw the man stole a bag)

_____

15. Granny Elisabeth liked soap operas (the soap operas came from Brazil)

_____

Exercise 12.

Use the correct relative pronoun (*who, which, whose***).**

1. Those were the jewellery shops _____ were robbed for last three months.

2. A lecturer _____ smart phone was ringing did not know how to stop it immediately.

3. The lady _____ gave him some money for charity was not too old.

4. The car _____ the interviewer came to the company was bright pink.

5. The suitcase _____ contained the scripts was grey and black with small wheels.

6. The woman _____ drove the slow car was strange and disappointed.

7. The children _____ toys were in the big box were generous and kind.

8. Peter wore a mask _____ made him look like Ironman.

9. She didn't wait at the traffic lights _____ were yellow.

10. A woman _____ son was in the playground was crying loudly next to it.

11. The fire fighters _____ truck was stopped at the next corner of the street

Obstructed the street traffic.

12. The old woman _____ granddaughter was crying in the attraction park tried to calm him.

13. The students _____ wrote down the lecture paragraph had a lot of textbooks.

14. The swimmer _____ goggles were obviously too big couldn't swim well and fast in the school swimming pool.

15. The tutor came with his colleague _____ waited outside the staff room.

FUTURE SIMPLE TENSE

Future Simple Tense – майбутній простий час вказує на те, що якась певна дія буде відбуватись у майбутньому.

Утворення Future Simple Tense

➕	➖	❓
I will walk	I won't walk	Will I walk?
You will walk	You won't walk	Will you walk?
He / She / It will walk	He / she / it won't walk	Will he / she / it walk?
We will walk	We won't walk	Will we walk?
You will walk	You won't walk	Will you walk?
They will walk	They won't walk	Will they walk?

ВЖИВАННЯ FUTURE SIMPLE TENSE

1. **Коли приймаємо спонтанне рішення**

She's thirsty. She **will** go and drink some water in the kitchen.

2. **Коли припускаємо, що щось відбудеться у майбутньому, але це тільки у нашій уяві**

Skateboards **will** fly in 2030.

Anna **will** be popular dancer one day.

3. **Коли щось обіцяємо**

I **will** translate this article, I promise.

4. **Коли когось попереджаємо або лякаємо**

If you don't tidy your room, mum **will** not let you go to the cinema.

5. **Зі словами:** *probably, perhaps, I promise, I hope, I believe, I think, I expect, I'm sure, I'm afraid, I bet*

I am afraid, he **will** not be in time at the station.

BE GOING TO

Конструкція **be going to** часто вживається в англійській мові і зазвичай перекладається як *мати намір, збиратися, планувати*.

Утворення конструкції be going to

➕	➖	❓
I am going to walk	I'm not going to walk	Am I going to walk?
You are going to walk	You aren't going to walk	Are you going to walk?
He / She / It is going to walk	He / she / it isn't going to walk	Is he / she / it going to walk?
We are going to walk	We aren't going to walk	Are we going to walk?
You are going to walk	You aren't going to walk	Are you going to walk?
They are going to walk	They aren't going to walk	Are they going to walk?

ВЖИВАННЯ КОНСТРУКЦІЇ BE GOING TO

1.   Коли говоримо про заплановані події (збираюсь щось зробити)

They're going to sell their old van.

2.   Коли кажемо, що зараз щось трапиться і ми це бачимо

Look! The car drives fast. It is going to crash.

Exercise 1.

Put the verbs into the correct form in *Future Simple***.**

1. Mr. Broomy _____ (**buy**) the tickets to the business trip soon.

2. They think their project team _____(**win**) this product contest.

3. Larry hopes that Claudia _____ (**cook**) family dinner tonight.

4. She is sure the company partners _____ (**understand**) its problems.

5. Your colleagues _____ (**travel**) around France to find new ways.

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6. They _____ (**meet**) lots of creative and talented researchers through the International scientific conference.

7. Her flatmates _____ (**move / probably**) to the other rented place.

8. Your suitcases seem very heavy. I think I _____ (**help**) you.

9. Miss Ann is his guest today. He _____(**get**) her a drink.

10. Maybe Kelly _____ (**do**) a psychology course in Sheffield.

11. A lot of beauticians _____ (**serve**) her before the performance.

12. Perhaps Ian _____ (**give**) these proposals to us.

13. Mr Scrooge _____ (**earn**) a lot of money for the company.

14. We believe our opponents _____ (**stay**) at their parking space.

15. Every amatory cook_____ (**adore**) their chef-instructor in the TV program kitchen.

Exercise 2.

Choose the correct verb from the box to the appropriate gap.

have	know	anticipate	freeze	seem
cover	not / be	take	be	meet
not / have	come	buy	happen / only	go

1. Mr Doolittle _____ here in the office on Thursday.

2. There _____ anything left in the fridge to cook for lunch.

3. Your tutor _____ the train tickets the day after tomorrow.

4. That old gentleman _____ our wishes soon.

5. We hope, this nice couple _____ any problems with love and wealthy in their nearest life together.

6. Mr Froth believes everything in that campaign _____ perfect.

7. Frank hopes he _____ lovely Nancy tonight.

8. Their groupmates _____ their lunch after twelve o'clock in the university canteen together.

9. The taxi _____ them to the student's hostel soon.
10. The international delegation _____ at nine o'clock today.

11. He promises all those pleasant things only _____ if she marries him.

12. The new shopping centre _____ a very great area in the city.

13. If the thermometer is below 0^0 water _____.

14. Mr Brown _____ the answer to the main issues tomorrow morning.

15. Her daughter and son _____ for a walk with their dogs soon.

Exercise 3.

Complete the sentences using *to be going to* **into the gaps.**

1. The partners are at the company. They _____ leave after midday.

2. Uncle Richard is ill. He _____ take some medicines.

3. Harry has got a stomach ache. He _____ see the medical specialist.

4. Granny Lucy is thirsty. She _____ have a soft drink.

5. The children's mother is tired. She _____ relax in the bath early.

6. My friends are hungry. They _____ get some food for snacks.

7. Our guests are bored. They _____ watch popular funny videos.

8. Ms Jannat is hot. She _____ have a shower in her hotel room.

9. Oh, it is very cold and cloudy outside. It _____ snow.

10. It is dark. They can't see. They _____ put on the light in their car.

Exercise 4.

Write the following questions using the example:

EXAMPLE: *Why /he / give up smoking.*

Why is he going to give up smoking?

1. What / Mr Thomson / do at the post office the day after tomorrow.

_____?

2. How much longer / it / take / get to our office.

_____?

3. How much red wine / you / offer your partner.

_____?

4. What / his grandchildren / drink for breakfast at home.

_____?

5. Who / carry Diana's shopping for her house.

_____?

6. Where / Edgar / sleep this night.

_____?

7. What time / his mother / phone him.

_____?

8. Where / Garry's family / have lunch during its tour in Paris.

_____?

9. When / he / give her girl-friend a Christmas gift.

_____?

10. Why / people / visit the famous story-teller after the lecture with him.

_____?

Exercise 5.

Put the verb into the correct form, positive (*I'm doing etc.***) or negative (***I'm not doing*** etc.).**

1. Mr Kelvin hopes you won't make so much noise. _____ (he **/ try**) to work.

2. We can go out right now. _____ (it **/ snow**) any more.

3. Grandfather can turn off the DVD player. _____ (I **/ watch**) that video now.

4. Frank phoned his groupmate last Sunday. He's on holiday in Madrid, _____ (he **/ have**) a great time and doesn't want to come back soon.

5. Diana wants to gain weight, so this week _____ (she **/ eat**) five times a day.

6. Lewis and Jack have just started their morning classes. _____ (they **/ learn**) French.

7. Sullivan and Michael have had an argument about the politics, _____ (they **/ speak**) to each other after it.

8. _____ (My aunt **/ get**) tired. She needs to have a rest.

9. _____ (Joanna **/ work**) this Monday. She's taken the day off.

10. _____ (We **/ look**) for Stephan. Do you know where he is now?

11. _____ (These scientists **/ participate**) in the research experiment in the laboratory now.

12. They have already done the explorations, so _____ (they **/ continue**) to collect their data this week.

Exercise 6.

Put the verb into the more suitable form *Present continuous* **or** *Present simple***.**

1. Their image and relative position _____ (**determine**) the general character of the terrain.

2. _____the documentary film _____ (**start**) at 13:30 or 14:30?

3. _____ (we / **have**) a student's contest next Friday. Would you like to join your group?

4. The partner's train _____ (**arrive**) at 11:20 on the 3rd May.

5. Those workers _____ (**not / go**) out from their hotel business centre this evening.

6. The art exhibition _____ (**present**) the local artists' works this week.

7. "_____ (the lectures / **start**) at 10:45 today. _____ (you / **do**) anything tomorrow morning till 9:00?" "No, I'm free."

8. _____ (they / **go**) to a rock concert together with my brother tonight?

9. Elise_____ (**leave**) now. She's come to say goodbye.

10.   A: Have you seen Mr Draggy recently?

B: No, but we_____ (**meet**) for dinner next Saturday.

11. When you are on the train to Sacramento you can ask another passenger:

Excuse me. What time _____this train (**get**) to Sacramento?

12. We are talking to Ian:

We: Ian, you _____ (**go**) to the library for extra information about Hydrography. We _____ (**go**) there too, _____ you (**join**) to us?

Ian: Oh, yes, it would be great!

13. Your parents are watching television show.

Mum says: I'm bored with this show. What time _____ it (**end**)?

14. Brian _____ (**not / use**) the car this morning, so she can have it.

15. Sandra _____ (**come**) to see her relatives in Odesa tomorrow. She _____ (**travel**) by train and her train (**arrive**) at 05:15.

Exercise 7.

Use *will* **or** *be going to*.

1. Your brother can't play with his little brothers. He _____ have a bath.

2. Could she have a glass, please? She _____ drink some still water.

3. Mr Markus thinks he _____ always love that woman.

4. - Where does that noise come from? - We don't know. We _____ have a look after a while.

5. Marcus _____ buy some vegetables for salad in greengrocers. Do you want to come with him?

6. - Would they like to go to the theatre? - No, sorry. They _____ prepare the economic project.

7. – Oh, your suitcase is seemed heavy, I _____ help you to get it to your hotel room.

8. Mother is exhausted this evening. _____ cook lunch boxes for tomorrow for her children?

9. - Did you speak to your partner? - Oh, no! I _____ phone him right now.

10. – Is he free this afternoon? - Sorry. He _____ study for the final exam.

Exercise 8.

Choose the correct variant *will* **or** *be going to*.

1. "Where are you going on your summer vacation?" – "We don't know yet, maybe _____ to Poland".

  A I will go   **B** we are going

2. Oh, look at that scary dark grey sky! It most certainly _____ rain tonight.

  A won't   **B** isn't going to

3. Are you watching the football game? It's 4 - 2, we _____ win the match!

  A are going to   **B** will

4. Her daughter _____ get married next autumn.

  A will   **B** is getting

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5. Mr Johnson can't join us at the dinner, he _____ away after 16:30.

   A will be   **B** is going to be

6. Granny, have you heard? Lucy is pregnant – she _____ have a long-awaited baby.

   A is going to   **B** will

7. Please, don't forget that I _____ out with my cousins after dinner! I won't be at home then. Watch a horror film alone.

   A will go   **B** am going

8. This box looks really heavy – I _____ help you.

   A will   **B** am going to

9. I think your colleagues _____ like this presentation. It is clear and relevant.

   A will   **B** are going to

10. We _____ Mrs. Dennison tomorrow at 11:00 in her office.

   A will see   **B** are seeing

11. People who want to avoid popular tourist resorts _____ probably rock climbing, bike racing or canoeing next season. They are very risky tourists!

   A will … choose   **B** are going to choose

12. Stay at one of the awesome beaches I hope you _____ in the sun!

   A are going to relax   **B** will relax

ARTICLE

Артикль – це службова частина мова, яка вживається перед іменниками. В англійській мові розрізняють два види артиклю – **неозначений (***the indefinite article***) – a, an** та **означений (***the definite article***) - the**.

THE INDEFINITE ARTICLE

Неозначений артикль **– a, an** вживається тільки перед зліченими іменниками в однині, не має форму множини.

This is **a** line**.**

These are lines.

ВЖИВАННЯ НЕОЗНАЧЕНОГО АРТИКЛЯ A, AN

1.   **Коли про щось говоримо уперше:**

It is a penknife.

2.   **Коли говоримо про будь-який предмет:**

I'd like to buy **a** new penknife.

3.   **У деяких виразах:**

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

Означений артикль– **the** вживається перед зліченими та незліченими іменниками в однині та множині.

ВЖИВАННЯ ОЗНАЧЕНОГО АРТИКЛЯ THE

1. **Коли про щось говоримо удруге й продовжуємо розповідь:**

It is **a** penknife.

The penknife is very sharp.

The penknife is not big.

2. **Перед предметами та об'єктами, що унікальні за своєю природою:**

The Earth **The** sun **The** moon

The Acropolis

3. **Перед назвами океанів, морів, заток, проток, річок:**

The Nile

The Black sea

The Atlantic ocean

4. **Перед назвами гірських хребтів, пустель, груп островів:**

The Alps

The Sahara

The West Indies

5. **Перед назвами країн, якщо у їх назві містяться слова states, kingdom, republic:**

The United Kingdom

The United States

The Irish Republic

Перед назвами музичних інструментів:

The trumpet, **the** piano

6. **Перед назвами готелів, театрів, кінотеатрів, кораблів, організацій, газет та музеїв:**

The Hilton Hotel

The Rex Cinema

The Queen Mary (ship)

The European Union

The Times

The Louvre

7. **Перед національностями та прізвищами, якщо позначаємо всіх членів сім'ї в цілому:**

The Germans

The Smiths

8. **Перед титулами, званнями та посадами, якщо ім'я та/або прізвище не згадуються:**

The President

The Queen

9. **При творенні найвищого ступеня порівняння прикметників**

The worst, **the** easiest

10. **З порядковими числівниками:**

The first, **the** second, **the** forty-fifth

11. **У деяких виразах:**

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

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ВІДСУТНІСТЬ АРТИКЛЯ ПЕРЕД ІМЕННИКАМИ

1.   З іменниками у множині, якщо говоримо про загальне:

Hippos live in the water.

2.   Перед іменами та прізвищами:

Luke Broun is my best friend.

3.   Перед назвами міст, країн, вулиць, площ та парків:

Prague is the capital of the Czech Republic.

Poland is a European country.

He lives at 10 Whitehall Street.

Hyde Park was unusually silent in September.

4.   Перед назвами окремих островів, озер, гірських вершин:

Mount Hoverla is the highest point of Ukraine.

Mykonos (island) is my favourite holiday destination.

Lake Michigan is located in the USA.

5.   Перед назвами континентів:

Australia is one of the continents.

6.   Перед назвами спортивних ігор та видів спорту

Basketball is his favourite sport.

7.   Перед титулами, званнями та посадами, якщо згадуються ім'я та/або прізвище:

President Trump has opened the meeting.

Queen Victoria was an outstanding monarch.

8.   З вказівними та присвійними займенниками:

This book has an exciting plot. Your friend is a very sensitive person.

9.   З назвами мов, якщо не вказується слово language:

Harrold studys Spanish.

The Korean **language** is very difficult.

10.   У деяких виразах:

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

Exercise 1.

Use *a* or *an*. Write the correct forms of the indefinite articles into the gaps.

1. Mr Higgins is drinking _____ full glass of still water every morning.

2. Odesa has _____ airport. But during the war it doesn't explore.

3. Frankly speaking, our uncle Tomas is really _____ honest person.

4. During their team work they have got _____ fantastic idea.

5. There is _____ orange German book on your desk. Look, who's that?

6. We've got some money to buy something on wheels for our son but that is _____ expensive scooter for us.

7. Andrew often reads _____ old encyclopaedia from our grandparents' library.

8. Look over here! There's _____ mole flying near your wardrobe.

9. My best friend wants to be _____ accountant in his father's enterprise.

10. Does that young man study at _____ university or in _____ institute?

Exercise 2.

Complete the following sentences, using *the*, *a*, *an* or (-) *no article*.

1. Our lecture says that homeless people belong to _____ weakest group of _____ society.

2. Before your brother's family came to _____ United States of America they lived in _____ Turkey.

3. Personally I think, _____ health care ought to be free for everyone.

4. The saying says: "_____ apple a day keeps _____ doctor away."

5. Millions of tourists are attracted to _____ Bukovel resort place every year.

6. We saw few people who do not rely on _____ modern technology.

7. Most old people think that _____ today's life is more difficult than it was in

_____ past.

8. _____ winter of 2024 was extremely mild one.

9. Deny thinks _____ lorry is expensive to buy but once he has it, he can't do

without it at his logistic work.

10. In Derybasivska Street, all _____ vehicles have been banned to go along it.

Exercise 3.

Complete the following sentences with *a/an*, *the* **or** (-) *no article*.

1. Jake is _____ captain of our junior volleyball team.

2. There's _____ article in the paper today about terrain objects.

3. Are you excited about your trip to _____ South Africa?

4. John's mother is _____ violinist. She is _____ great musician in the city.

5. Ken doesn't like _____ fire fighters, but _____ fire fighters in his town are

brave and super ones!

6. Harriet cooked a very nice meal yesterday. _____ beef stew was delicious.

7. Can you bring me some butter from _____ fridge?

8. Helen has _____ parrot and some hamsters. _____ parrot is really clever and very talkative.

9. My son doesn't like_____ apple-pies with raisins, but I like_____ apple-pies that my grandmother cooks.

10. He's going to buy _____ new laptop because _____ laptops for our studying are very useful.

PRESENT PERFECT TENSE

Present Perfect Tense – теперішній доконаний (перфектний) час англійської мови, вживається для позначення подій, що завершилися до теперішнього моменту часу, або тих, що було завершено в період теперішнього часу.

Утворення Present Perfect Tense

➕	➖	❓
I have walked (eaten)	I haven't walked (eaten)	Have I walked (eaten)?
You have walked (eaten)	You haven't walked (eaten)	Have you walked (eaten)?
He / She / It has walked (eaten)	He / she / it hasn't walked (eaten)	Has he / she / it walked (eaten)?
We have walked (eaten)	We haven't walked (eaten)	Have we walked (eaten)?
You have walked (eaten)	You haven't walked (eaten)	Have you walked (eaten)?
They have walked (eaten)	They haven't walked (eaten)	Have they walked (eaten)?

ВЖИВАННЯ PRESENT PERFECT TENSE

1.   Для позначення дій, які щойно (не) завершилися:

– Have you written your letter? – Yes, we have/ No, we haven't.

The plane has just landed.

Eva hasn't read the fairy-tale yet.

2.   Для позначення дій, які відбувалися в минулому, але результат ми бачимо зараз:

Kevin can't enter the room. I've lost my key.

3.   Для опису дій, які почалися в минулому і досі тривають:

Denis has known her for years / since his childhood / since 1995.

She has written about ten novels.

4.   Для позначення дій, що мали місце у період часу, який ще не минув. (з виразами на кшталт *"this morning"* **/** *"afternoon"* **/** *"week"* **– сьогодні ранком / вдень / на цьому тижні:**

Has your aunt come for lunch this afternoon?

Helen hasn't phoned this evening.

СЛОВА-МАРКЕРИ

У стверджувальних реченнях:

- for (впродовж, протягом) – We have known them for 5 years.
- since (з якогось моменту) – Ben has been recovered since last Sunday.
- already (вже) – They have already had lunch in the restaurant.
- just (щойно) – She has just sung a song for them.
- recently (нещодавно) – Mr Alex has recently hired his first secretary.
- so far (напередодні, останнім часом) – We've written some letters so far.

У питальних реченнях:

- ever (коли-небудь) – Have you ever seen any popular actor or actress?
- how long (як давно) – How long has he been a football trainer?
- yet (ще) – Has Tania spoilt her drawing yet?
- lately (останнім часом) – Have your children seen any cartoons lately?

У заперечних реченнях:

- for (впродовж, протягом) – Klark hasn't talked to him for weeks.
- since (з якогось моменту) – We haven't met Tom since last Monday.
- yet (ще) – Margo hasn't checked my report yet.
- lately (останнім часом) – Frank hasn't watched that TV show lately.
- never (ніколи) – My children have never flown by plane.

HAVE GONE TO OR HAVE BEEN TO

HAVE GONE TO – поїхав і ще не повернувся – Adam has gone to Odesa.

HAVE BEEN TO – побував (вже повернувся) – Donna has been to Istanbul twice.

Exercise 1.

Make the positive form of *the Present Perfect* **Tense.**

1. (Melany / eat / that fruit salad)

_____

2. (We / have / late breakfast in a café this week)

_____

3. (Her children / watch / that documentary about world ecological crises)

_____

4. (Grandfather / cook / lunch for us)

_____

5. (Sergio / go / to the USA twice a year)

_____

6. (His dog / find / my purse in those plastic boxes)

_____

7. (Mr Gerkan / meet / his boss at the railway station)

_____

8. (Our aunt Molly / live / in that flat for one year)

_____

9. (Our partners / miss / the plane twice)

_____

10. (Those boys / try / skate boarding this afternoon)

_____

11. (My department / write / to the local authority four times a week)

_____

12. (Her boy-friend / pass / the final exam satisfactory)

_____

13. (The Browns / go / to Italy once a year)

_____

14. (We / know / Mr Noh for more than five years)

_____

15. (Their children / eat / too much sweets and sugary food)

_____

16. (Our relatives / be / there for two weeks)

_____

17. (Mrs Hollander / drink / too much strong coffee this morning)

_____

18. (Paul and his mother / miss / their bus)

_____

19. (Dad / lose / his office keys this evening)

_____

20. (Alice / learn by heart / the famous English verses)

_____

Exercise 2.

Make the negative form of *the Present Perfect* **Tense.**

1. (We / not / know / him for three months from the beginning of studying)

_____

2. (Mum / not / read / that magazine from your personal library)

_____

3. (Mr Xeon / not / buy / any dairy products)

_____

4. (Those girls / not / find / their keys in the bus)

_____

5. (His younger brother / not / clean / his bedroom)

_____

6. (Teddy / not / break / his leg during the football match)

_____

7. (His girl-friend / not / call / him today)

_____

8. (My father / not / make / breakfast for the whole family)

_____

9. (Her sister / not / see / "Star Wars")

_____

10. (We / not / find / the office papers yet)

_____

11. (Kelly / not / do / her homework in Economics)

_____

12. (They / not / go / to Ankara)

_____

13. (Luke / not / come / to his tourist site)

_____

14. (She / not / meet / her new colleague yet)

_____

15. (The baby / not / sleep / in the tour bus / well)

_____

16. (Their parents / not / visit / Archaeological Museum)

_____

17. (The international delegation / not / arrive / to our university yet)

_____

18. (His grandmother / not / leave / her hat in a bus)

_____

19. (She / not / study / French for ten years)

_____

20. (Their flatmates / not / be / at rented flat for three weeks)

_____

Exercise 3.

Make the *Present Perfect* **Tense 'Yes / No' or 'Wh' questions.**

1. (Mr Gregory / be / late for the meeting this afternoon)?

_____

2. (How long / she / walk in the park next to her office)?

_____

3. (How much chocolate bars / you / buy for children)?

_____

4. (How much tea / Lily / drink this evening)?

_____

5. (Why / granny / bring / those vegetables / from the kitchen-garden)?

_____

6. (Those students / pass / the final exam yet)?

_____

7. (Our delegation / go / to the UAE this week)?

_____

8. (Mario / meet / his girl-friend's family yet)?

_____

9. (How many times / we / visit / that local art exhibition)?

_____

10. (How long / your friend / already / study Elementary English)?

_____

11. (How many historical films / Franky / watch these days)?

_____

12. (The Radissons / live / in that motel as long as they have)?

_____

13. (Harry / meet / his sister's university friend before)?

_____

14. (Kate and Vicky / miss / the train to Bath)?

_____

15. (What / your land-lord / do in the kitchen today morning)?

_____

16. (Those married spouse / go / to Portugal on holidays or on business trip)?

_____

17. (Mr Hamilton / come / to that bank for deposit money)?

_____

18. (How long / his grandparents / live in Scotland)?

_____

19. (Where / your groupmates / be this afternoon)?

_____

20. (You / already / read / "1984")?

_____

Exercise 4.

Make the correct form of the verbs in brackets. Use *the Past Simple* **or** *the Present Perfect* **Tenses.**

1. Her brother _____ (**not/see**) the waterfalls before.

2. When Mr Frigg _____ (**walk**) into the office the staff _____ (**know**) someone was going to be shouted at.

3. Mrs. White _____ (**be**) a tailor before she _____ (**become**) a popular singer.

4. Our father and grandfather _____ (**be**) frozen when they_____ (**arrive**) home.

5. After Joanna _____ (**arrive**) the hotel, she _____ (**pack**) her clothes and _____ (**prepare**) to check-out till 12:00.

6. Marcus _____ (**hurt**) his leg and (**break**) his left hand when he _____ (**fall**) off a scooter in 2024.

7. Andrew _____ (**miss**) his bus, so he can't come dancing in time.

8. The children _____ (**see**) two flocks of birds this afternoon.

9. Dillan _____ (**work**) as an office clerk for ten years, and he still enjoys his job.

10. Their parents only _____ (**know**) each other for nine months before

they _____ (**get**) married.

11. You _____ (**be**) in Paris for five days and four nights. You love it here.

12. How long _____ (you / **know**) Mrs Eliza? I know you talk to her very often and you do it too long.

13. The Rheids _____ (**arrive**) home – I ask you to come and say hello.

14. Eva and Ken _____ (**see**) this romantic film four times this week.

15. Your teacher _____ (**know**) about this argument between you and your groupmate for some days, but she _____ (**not / find**) an apt solution yet.

16. Those children _____ (**break**) a neighbour's window last Thursday.

17.   A: Hello, Billy!

B: Hello aunty, it's me. I just want to say I _____ (**arrive**) home safely and everything is OK.

18. Her parents _____ (**see**) her boy-friend last night.

19.   A: What's wrong?

      B: Little Ian _____ (**break**) your new cup.

20.   A: When _____ (you / **arrive**) your business centre?

      B: At 3 pm last Monday.

Exercise 5.

Choose the correct form of the verbs in brackets. Use *the Past Simple* **or** *the Present Perfect* **Tenses.**

1. The Asian husband _____ (**have**) many wives many years ago.

2. Oh, my God! My son _____ (**lose**) his rucksack with his passport!

3. My groupmates _____ (**be**) in the library all evening.

4. Her grandfather _____(**have**) six brothers and two sisters.

5. Jane's parents _____ (**meet**) in Lviv when they were the medical students in institute.

6. Sara _____ (**hurt**) his legs the day before her tennis tournament.

7. _____ (they/**see**) their uncle Richey this afternoon?

8. Our sons _____ (**go**) to the concert together tonight.

9. On Sundays, our cousins _____ (**play**) badminton, then they _____ (**go**) to the seaside to relax.

10. We _____ (**visit**) our father in the hospital yesterday.

11. Brandley _____ (**live**) in Denmark for two years when he was a medical student.

12. She _____ (never / **go**) to Australia, because of its dangerous fauna.

13. _____ (you / ever /**see**) 'Agent 007'?

14. Fiona _____ (not / learn) this poetic verse yet.

15. Mummy _____ (cut) her thumb!

Exercise 6.

Fill in the blanks with the correct form of the verb in *the Past Simple* **or** *the Present Perfect***.**

1. Listen Daniel, he doesn't care if your car _____ (**break**) this morning. You _____ (**be**) late to work five times in a week. I think you need to talk with HR!

2. A: Did you like the movie "Hidden Figures"?

   B: I don't know. I _____ (**see / never**) that movie.

3. We _____ (**visit / never**) Canada, but we _____ (**travel**) to North America several times. The last time we _____ (**come**) to see our friends, we (**visit**) two

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states California and Florida. We _____ (**spend**) some days in Sacramento and San Diego, _____ (**hike**) for three days to the South Lake Tahoe, and _____ (**fly**) over the USA to the UK.

4. Miss Klara _____ (**tell**) those boys to follow her while they were hiking, but they _____ (**turn**) into the wood and the wild bees _____ (**sting**) those naughty boys there.

5. Franky, my partner couldn't believe how much you _____ (**improve**) your computer skills since the last time he _____ (**see**) you.

6. Petra is from Poland, which is hundreds of miles from the ocean coast, so she _____ (**see / never**) the ocean. She ought to come with her colleagues to Liberia.

7. Her aunt and my mother _____ (**know**) each other since their childhood. They still phone and gather together once or twice a week.

8. What a disappointment! Mrs Galina _____ (**wish**) to go to Europe to meet her grandchildren before she died, but she didn't make it. She _____ (**see / never**) them from their birth.

9. Things _____ (**change**) a great deal at SelmAgro, Inc. When his father first _____ (**start**) working there two years ago, the agrarian company _____ (**have / only**) ten employees. Since then, the company _____ (**expand**) to include more than 100 full-time workers.

10. Billy _____ (**be**) a fan of Manchester United for ten years. He _____ (**be**) a fan of this team until they _____ (**lose**) three games running.

11. This is the third time Kate _____ (**miss**) a meeting. Since we _____ (**meet**) her we never (**see**) her lose her temper.

12. Margaret _____ (**make**) a lot of friends since she _____ (**come**) here. She _____ (**meet**) many interesting people since she _____ (**be**) in the countryside for practice.

13. We _____ (**not see**) Nikola since he _____ (**begin**) seeing his new girlfriend. As long as we _____ (**know**) him he always _____ (**be**) very friendly.

14. She _____ (**change**) her job three times in the last five years. Last year she _____ (**even / change**) all the furniture in her house.

15. When you _____ (**buy**) this little black dress? — I _____ (**buy**) it last year. I _____ (**buy**) another one since then.

IMPERATIVE

Imperative (Наказовий спосіб дієслова) в англійській мові зазвичай використовується для того, щоб висловити наказ, спонукання до дії, заборону, прохання, запрошення, пораду, надати інструкції тощо.

Утворення Imperative

Imperative утворюється за допомогою основної форми дієслова без частки *to*, що стоїть на початку речення. Особа до якої звернена дія не вказується.

Open the door, please!

Заперечна форма утворюється за допомогою *don't* та основної форми дієслова без частки *to:*

Don't close your eyes!

Don't stop here!

ВЖИВАННЯ IMPERATIVE

1.   Imperative використовується для того, щоб висловити наказ або спонукання до дії.

Go there immediately!

Repeat those phrases in English!

2.   Imperative використовується для того, щоб висловити заборону.

Don't touch that Chinese glass vase!

3.   Imperative використовується для того, щоб надати інструкції.

Drive from this place to that supermarket.

4.   Imperative використовується для запрошення.

Come here after classes.

5.   Imperative використовується для того, щоб висловити прохання.

Bring it to me, please!

6.   Imperative використовується для того, щоб висловити пораду.

Put on that brown skirt! It suits you better.

Exercise 1.

Fill in the gaps with the correct words from the box. Some of these imperative forms are negative (-).

take	sit	drink	tell	go
close	leave	help	clean	phone

1. _____ and drive your motorcar. (-)

2. _____ your bedroom. It's so messy!

3. Today's our daddy's birthday. _____ him, please.

4. _____ that windows, please. It's too windy outside.

5. _____ on that stool. It is very old and broken a little. (-)

6. _____ them to the taxi-rank.

7. _____ her my boss e-mail address. (-)

8. _____ through that strange and criminal district of town at night. (-)

9. _____ your dirty clothes in the laundry sack outside the bathroom.

10. _____ him with a breakfast in the kitchen.

Exercise 2.

Fill in the blanks with the correct form of the verb according to the Imperative.

1. _____that hotel front door. (**not / to push**)

2. _____ your exercise-books and write down the current date. (**to open**)

3. _____this back door, it's blocked. (not / to pull)

4. _____ to little Arnold, he's learning the poem by heart now. (**to talk**)

5. Please _____ down his phone number in your telephone book. (**to write**)

6. _____ the door. Somebody is knocking. (**to open**)

7. _____ German in the language classroom, it's English one. (**not / to speak**)

8. _____ to that building, please. It's in a state of emergency (**not / to come**)

9. _____ him some water. The food was too salty and spicy. (**to give**)

10. _____ Ukrainian to your groupmates in the classroom. (**to speak**)

MODAL VERBS

Модальні дієслова (Modal verbs) складають окрему групу дієслів в англійській мові. Вони не вживаються самостійно, тільки разом з інфінітивами основних дієслів, не виражають дії або стану.

Модальні дієслова вживаються для позначення можливості, необхідності, ймовірності, заборони, дозволу, тощо, основної дії.

МОДАЛЬНЕ ДІЄСЛОВО CAN

➕	➖	❓
I / You / He / She / It / We / You / They **can walk.**	I / You / He / She / It / We / You / They **can't (cannot) walk.**	**Can** I / You / He / She / It / We / You / They **walk?**

ВЖИВАННЯ CAN

1.   Висловити фізичну і розумову здатність людини:

Denis can help you to translate those sentences.

We can close those windows.

2.   Висловити заборону, прохання чи дозвіл:

They cannot hang out in the shopping centre.

Can we have lunch together?

They can play computer games after they do their tasks.

3.   Висловити подив, недовіру, сумнів.

How can you enter there without permition!

He cannot be 55!

МОДАЛЬНЕ ДІЄСЛОВО COULD

➕	➖	❓
I / You / He / She / It / We / You / They **could walk.**	I / You / He / She / It / We / You / They **couldn't (could not) walk.**	**Could** I / You / He / She/ It / We / You / They **walk?**

ВЖИВАННЯ COULD

1.   Висловити пропозицію, запропонувати щось (теперішньої форми не існує, є лише минула та майбутня):

We could enter that university in Germany.

2.   Для зазначення того, що вмів або міг робити у минулому:

Tom could speak Greek when he was six years old.

3.   Висловити ввічливе прохання:

Could you help me with this heavy box, please?

МОДАЛЬНЕ ДІЄСЛОВО MAY

➕	➖	❓
I / You / He / She / It / We / You / They **may walk.**	I / You / He / She / It / We / You / They **may not walk.**	**May** I / You / He / She / It / We / You / They **walk?**

ВЖИВАННЯ MAY

1.   Виразити дозвіл на щось:

They may get away.

2.   Висловити прохання або спитати дозволу:

May I go out from the classroom?

МОДАЛЬНЕ ДІЄСЛОВО MUST

⊕	⊖	❓
I / You / He / She / It / We / You / They **must walk**	I / You / He / She / It / We / You / They **mustn't (must not) walk.**	**Must** I / You / He / She/ It / We / You / They **walk?**

ВЖИВАННЯ MUST

1.   Висловити повинність, зобов'язаність (власне рішення):

We must wash the floor in the hall.

Ian must give me back my CD tomorrow.

2.   Заперечна форма mustn't може перекладатись як «заборонено»:

He mustn't use that knife. It is very sharp.

3.   Модальне дієслово *must* вживається тільки у теперішньому часі! У майбутньому та минулому замість нього вживається модальне дієслово *have to*.

МОДАЛЬНЕ ДІЄСЛОВО HAVE TO

⊕	⊖	❓
I / You / We / You / They **have to walk.**	I / You / We / You /They **don't have to walk.**	**Do** I / You / We / You / They **have to walk?**
He / She / It **has to walk.**	He / She / It **doesn't have to walk.**	**Does** He / She / It **have to walk?**

ВЖИВАННЯ HAVE TO

1.   Висловити зобов'язаність, потребу (цього вимагає ситуація або обставини):

We have to come and see our grandparents every week.

2.   Відсутність необхідності щось робити:

She doesn't have to see her doctor today.

3.   Модальне дієслово *have to* має форми минулого та майбутнього часів:

They had to hire some workers yesterday.

He will have to go on business trip tomorrow.

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МОДАЛЬНЕ ДІЄСЛОВО NEED

➕	➖	❓
I / You / He / She / It / We / You / They **need walk.**	I / You / He / She / It / We / You / They **needn't (need not) walk.**	**Need** I / You / He / She/ It / We / You / They **walk?**

ВЖИВАННЯ NEED

Висловити наявність або відсутність потреби у чомусь:

They needn't go to the market today. You've got some eggs and milk in the fridge.

МОДАЛЬНЕ ДІЄСЛОВО SHOULD

➕	➖	❓
I / You / He / She / It / We / You / They **should walk.**	I / You / He / She / It / We / You / They **shouldn't (should not) walk.**	**Should** I / You / He / She / It / We / You / They **walk?**

ВЖИВАННЯ SHOULD

1.   При порадах та в інструкціях:

We should enroll the IT course this month.

2.   При висловленні висновків, що зроблені на підставі інформації, яка щойно з'явилася:

The deligation arrived one hour ago so they should be in the office soon.

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ВІРОГІДНЕ (ЙМОВІРНЕ) МАЙБУТНЄ З WILL / MAY / MIGHT / COULD

Ми використовуємо модальні дієслова *may, might, could + V1*, **щоб описати подію або ситуацію, яка може відбутися у майбутньому (ймовірне).**

Susan might cook dinner tonight.

У заперечних реченнях ми використовуємо *may not, might not*, **НЕ МОЖНА використовувати** *could not*.

Paul might not go skiing next weekend.

Ми використовуємо *will* **для передбачень. Якщо ми не певні щодо наших передбачень, ми використовуємо** *I think…* **або** *probably*.

I think Ronald will be a nice swimmer next season.

У реченнях можна користуватись наступною схемою для орієнтовного визначення, яке саме дієслово треба використати:

100%	90%	70%	40%	10%	0%
will	will probably	could, may, might	may not, might not	probably won't	won't

---

Exercise 1.

Complete the following sentences using *can*, *can't* **or** *could*, *couldn't*.

1. Christopher was very exhausted. He _____ even walk.

2. Sir, _____ you bring a bottle of wine and three glasses, please?

3. Where were her black pens? She _____ find them.

4. _____ you ride a motorbike well?

5. Kenneth _____ attend his lessons today because he feels badly.

6. Grandmother _____ hear her sister. The voices of her guests are so loud.

7. They _____ enter this club. They have not got any tickets.

8. They _____ leave their home now. She is ready to go to the party.

9. Sparrows _____ fly very far distances.

10. Amanda, _____ we speak to Donna?

11. _____ Kimberly go out now, please, mummy?

12. That little boy _____ talk Spanish fluently and clearly.

13. Kevin _____ play tennis with me because his right arm is injured.

14. _____ you open that window, please? It is too hot inside.

15. Those boys _____ play the trumps well.

16. Dorothy _____ drink her herbal tea. It's too hot.

17. We hope they _____ help us to choose the best variant.

18. It's too dark. They _____ see any things!

19. _____ you spell your name for me, madam?

20. Jeffrey hopes he _____ be in his office on time.

Exercise 2.

Choose the correct variant:

1. _____ (**Can't / Can**) you pronounce it once more, please, miss?

2. Mrs. Watson, _____ (**could / can**) you please pass that book to me?

3. Gregory, _____ (**could / can**) you play the guitar now?

4. No, she _____ (**can't / can**)!

5. It's his final exam review so he _____ (**can't / can**) go out tonight.

6. Look! His parrot _____ (**can't / can**) talk clearly.

7. Antony _____ (**can't / can**) be in his office on time. His car was broken half an hour ago.

8. They _____ (**couldn't / can**) hear her well! Please, ask her to speak louder.

9. _____ (**Can't / Can**) you explain me how to cook your tasty soup, granny?

10. Frankly speaking, they _____ (**couldn't / can**) hear our jokes during the screen demonstration!

Exercise 3.

Put the words in the correct order.

1. move / may / weekend / They / next / new house

_____

2. go / we / college / may / to / by taxi?

_____

3. yourself / you / play / Don't / with / may needle / sharp / hurt / a

_____

4. your / telephone / mobile / I / please? / May / use

_____

5. he / textbook? / English / May / borrow / your

_____

6. variants / may / There / be / the / appropriate / to answer

_____

7. believe / her / not / Mrs Harriet / may / partner

_____

8. may / go / let / Your / not / you / teacher

_____

9. It / the / also / reduce / activity / may

_____

10. another cup of tea? / I / her / May / offer /

_____

Exercise 4.

Fill in the blanks with affirmative or negative forms of *must* **or** *have to* **or** *has to*.

1. Her brother can't hear very well. He_____ wear earphone.

2. His wife _____ be in a hurry, because we might be late for the show.

3. There is a strong wind and heavy rain outside. Leo _____ open his umbrella.

4. Sarah _____ stop smoking. It is very harmful for her baby in her womb.

5. Margo has a stress because of bad news, so she _____ relax and take her pills for calming down.

6. All office workers _____ follow the company requirements.

7. Our uncle can give Steven his mechanical watch, so he _____ buy a new one.

8. The guests _____ take a taxi as soon as possible, so it is too late to use the public transport.

9. It is a stormy weather outside. They _____ stay at home until the weather will be better.

10. Ronald's motorbike is crashed, he _____ safe some money to fix his motorbike and pay a compensation for damage of the shop owner's fence.

11. Laura _____ return a new tablet to the electronic shop. It is faulty.

12. I have learnt that any driver _____ go at the green light of traffic lights.

Exercise 5.

Complete the sentences with *mustn't* **or** *don't have to* **/** *need to***.**

1. You _____ leave any hazardous substances where children can reach them.

2. Benjamin _____ wake up early tomorrow, he has got an important exam in the morning.

3. This demonstration of the show is free of charge, so they _____ buy a fee to enter there.

4. The sign shows that one _____ smoke in the beauty salon.

5. Debra _____ visit her friend's flat to look after her little kitten. The kitten is taken by friend's neighbours.

6. There is another tram later, so your cousins _____ be in a hurry to get on this one.

7. Your girl-friend _____ smoke in a cafe because it is a non-smoking area here.

8. Patrick _____ give that bracelet back to her. This is her memorable gift to him.

9. Lauren's therapist said that she _____ neglect his cure advices.

10. It's Friday today. Virginia _____ do any housekeeping chores.

Exercise 6.

Fill in the blanks with *must*, *mustn't*, *have / has (not)*, *needn't*.

1. If a student breaks a university rule, he / she _____ to write an explanation or to meet with the tutor.

2. This is an international logistic company, so the office workers _____ to wear their uniforms at their offices.

3. The restaurant kitchen _____ to be cleaned before new working shift.

4. Kindergarten's children_____ come to their room with a nurse late.

5. You _____ bring your changing sport suit for your sport classes.

6. The scientific researchers _____ submit all their articles before the publication deadline.

7. The papers _____ be attached to the portal task unless our teacher tells

us to do it.

8. Those who finished their task _____ start making noise in the office.

9. Workers _____ to pay for the transportation as their factory has its own bus system.

10. You _____ be in the office during lunch time, you can go out for this time if you want.

Exercise 7.

Complete the sentences using *should*, *shouldn't*.

1. It's not a safety and pleasant area. Your guests _____ go there.

2. Nathan has an old-fashioned office with an old equipment there; he _____ renovate or even change it.

3. That old woman always remind her little grandson: "When someone does you a favour, my dear, you _____ be polite and grateful to them too".

4. Your father _____ eat so much greasy and spicy food; it's not good for his affected digestive system.

5. Andrea _____ play the violin more times a day if she wants to win the musical contest.

6. The municipal administration _____ help relocated people with housing in its region.

7. My friend recommended that list of films. We _____ watch it these evenings.

8. Their little nieces _____ eat many lolly-pops. It's not very healthy for their baby teeth.

9. Roger_____ invite his guests to that restaurant. The food is not tasty and expensive enough there.

10. Do you think Janice_____ apply for that new job in the suburb?

Exercise 8.

Complete the following sentences with correct variant:

1. I _____ to complete the whole form for my application to be processed.

 A should   **B** need   **C** ought to

2. Does she _____ to apply in writing for it?

 A should   **B** need   **C** ought

3. I _____ think that the new bicycle lane will be ready next week.

 A should   **B** need   **C** ought

4. Gregory has been studying hard. He _____ do well in the Maths examination.

 A needs   **B** should   **C** ought to

5. _____ you have any questions just ask anyone here for help?

 A should   **B** need   **C** ought to

6. We _____ imagine that boxer will be tired after such a long flight in a ring.

 A should   **B** need   **C** needs

7. You _____ come so early. They're not ready to start the presentation yet.

 A didn't need to   **B** needn't have   **C** should/ought to

8. The Donalds _____ their ID cards to get into the club.

 A needn't have   **B** didn't need   **C** should

9. They _____ get permission from their parents first, of course, before they can go.

 A need   **B** didn't need   **C** should

10. Jill _____ remember to take a warm jacket, though, as it will be chilly.

 A didn't need to   **B** need   **C** ought to

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GERUND AND INFINITIVE

Герундій (The Gerund) – це неособова форма англійського дієслова з суфіксом -ing, що поєднує в собі риси іменника і дієслова й несе в собі відтінок значення деякого процесу. Наприклад:

walking

winning

standing

Перед герундієм ніколи не використовується артикль і він не має форми у множині.

ВЖИВАННЯ ГЕРУНДІЯ

1.   У ролі підмета:

Reading is very good for your memory and oral speech.

2.   Після прийменників:

Before doing morning exercises, please air the room.

3.   Після деяких дієслів як доповнення:

Have you started giving the instructions?

Дієслова, після яких <u>використовується</u> герундій:

Admit	*Escape*	*Miss*
Adore	*Fancy*	*Postpone*
Avoid	*Feel like doing*	*Practise*
Can not stand	*Finish*	*Quit*
Carry on (= continue)	*Imagine*	*Recall (= remember)*
Consider	*Involve*	*Resent*
Delay	*Keep (on) (= continue)*	*Resist*
Deny	*Look forward to*	*Risk*
Discuss	*Mention*	*Suggest*
Enjoy	*Mind (= object to)*	*Tolerate*

Інфінітив в англійській мові являє собою не особову форму англійського дієслова, яка позначає тільки дію, не вказуючи ні на особу, ні на число. Інфінітив відповідає на питання: що робити? що зробити? Інколи його називають неозначеною формою дієслова.

to lead

to make

to swim

ВЖИВАННЯ ІНФІНІТИВА

1.   Після прикметників:

It is so silly to waste his time for it!

2.   Для пояснення мети або наміру:

Sally wants to book a cafe to celebrate her mum's anniversary.

3.   Після деяких дієслів:

Thay decided to return home after the lectures.

Дієслова, після яких <u>використовується</u> інфінітив:

Afford	*Need*
Agree	*Offer*
Aim	*Plan*
Arrange	*Prepare*
Attempt	*Pretend*
Ask	*Promise*
Decide	*Refuse*
Deserve	*Seem*
Expect	*Tend (= be likely)*
Fail	*Threaten*
Guarantee	*Turn out*
Hope	*Volunteer*
Learn	*Undertake*
Manage	*Want*

Дієслова, після яких можна використовувати і герундій, і інфінітив.

Сенс висловлювання від цього абсолютно не зміниться!

begin	*like*
continue	*love*
hate	*prefer*
intend	*start*

Сенс фрази буде змінюватися в залежності від того, яку з неособових форм дієслова ви будете обирати.

Forget

forget + to do — забути зробити (щось не зроблено):

Frank forgot to buy some bread for dinner.

forget + doing — забути про щось (щось зроблено, але немає спогадів):

Ashley forgot taking photos of her guests at the party.

Go on

go on + to do — продовжити, почавши нову дію:

The tutor went on to write the rule on the board.

go on + doing — продовжити розпочату дію:

Daniel asked his groupmates to be quiet during the lecture, but they went on talking loudly anyway.

Need

need + to do — мати необхідність щось зробити:

William needs to give his notes to the teacher.

need + doing — потребувати чимось (для речей і предметів):

Her hair dryer needs fixing.

Mean

mean + to do — мати намір, збиратися:

I hope they didn't mean to disturb you during night.

mean + doing — означати:

Write your name here correctly. It means doing it even clearly.

Regret

regret + to do — жалкувати про щось (що відбувається або ще не зроблено):

Karl regrets to inform her that she is fired.

regret + doing — жалкувати про щось (скоєному в минулому):

She regret to tell him the truth about his dog's death.

Remember

remember + to do — пам'ятати, не забути зробити (щось не зроблено ще):

Remember to close the door when you leave.

remember + doing — пам'ятати про щось, не забути (що вже було зроблено):

They will always remember travelling around Ukraine.

Stop

stop + to do — зупинитися, щоб щось зробити:

She stopped to swim in the sawimming-pool.

stop + doing — припиняти щось робити:

Zak stopped playing handball two years ago when he broke his left arm.

Try

try + to do — намагатися, старатися, докладати зусилля:

You've tried to meet Edward, but he was in the operation room.

try + doing — пробувати, експериментувати:

If you can not lose weight, try eating more protein food, vegetables and fruit.

INFINITIVE WITHOUT *TO*

Інфінітив без частки *to* вживається в наступних випадках:

1. **Після модальних дієслів, крім** *have to, be to, ought to***:**

Olga could talk well at the age of 2.

May we invite you to the handmade workshop?

2. **Інфінітив без частки *to* використовується після дієслів** *let, make***:**

Let me know where you are.

They can not make her believe them.

3. **Зверніть увагу, в пасивній конструкції інфінітив буде вживатися з часткою *to*.**

Nancy was made to write him this letter.

4. **Після модальних висловів** *would rather, had better***:**

We'd rather call the police.

You'd better anwer the call at once.

Exercise 1.

Put the verb into either *the Gerund* **(-*ing*)** **or** *the Infinitive* **(with '*to*'):**

1. Do you mind _____ (**give**) me your headphones to listen that audio?

2. His parents discussed _____ (**eat**) out in the city centre, but in the end, they stayed at home and had dinner as usual.

3. Karl and Jacob kept _____ (**talk**) during the show. It was so funny!

4. His relatives don't want _____ (**leave**) yet.

5. Helen promises _____ (**help**) him after lunch time.

6. Adam helped her _____ (**carry**) her suitcases.

7. My sister would like _____ (**come**) to see her friend in his new flat with

you.

8. Sally enjoys _____ (**take**) a shower every morning before her work.

9. Thomas decided _____ (**study**) Ecology at university.

10. I don't recommend _____ (**catch**) a bus - it takes more than a half an hour!

11. Andrew avoided_____ (**plan**) something serious for the nearest future.

12. Ann and David don't fancy _____ (**go**) out tonight they would like _____ (**stay**) at home together with each other.

13. Those tourists dislike _____ (**wait**) for the guide here in the noisiest place.

14. Sam is learning _____ (**speak**) Chinese fluently.

15. Granny has finished _____ (**make**) dinner – we should come and eat!

16. Rita hopes _____ (**visit**) Lutsk next week.

17. Her friends asked _____ (**come**) with them to the new performance.

18. Aunt Kelly agreed _____ (**bring**) her sea-food salad to the dinner.

19. Her father suggested _____ (**go**) to the Art exhibition.

20. Our neighbour plans _____ (**start**) university this September.

Exercise 2.

Put in the verbs in brackets in *the Gerund* **or** *the Infinitive*.

1. Tiffany doesn't mind _____ (**work**) for the fitness club in the evenings.

2. Their son learnt _____ (**ride**) the bicycle at the age of 7.

3. The tutor expected the first-year students _____ (**study**) hard this term.

4. Henry looks forward to _____ (**see**) Mary on Thursday evening.

5. The old lady asked him how _____ (**get**) to the nearest bank.

6. They decided _____ (**walk**) through the park.

7. The rule was easy _____ (**understand**).

8. We can't imagine William _____ (**dance**) Walz with his ex-partner.

9. Are you thinking of _____ (**travel**) abroad this summer?

10. Mummy agreed _____ (**buy**) a new tablet.

Exercise 3.

Put in the verbs in brackets in *the Gerund* **or** *the Infinitive***.**

1. My friend wants _____ (**buy**) a new pair of jeans.

2. His sister said: "Avoid _____ (**make**) silly mistakes in the test!"

3. Their parents told her_____ (**be**) near the theatre on time.

4. Charles's got some house work _____ (**do**) around there in the morning.

5. Miss Jane adores _____ (**tell**) funny stories for children.

6. Does she know what _____ (**do**) if there's a mess in her room?

7. Jessica would like _____ (**fly**) an airplane there.

8. Her parents hope _____ (**see**) their grandchildren soon.

9. Peter and Frank gave up _____ (**smoke**) a week ago.

10. Our grandfather dreams about _____ (**fix**) his old car to drive to the seaside together with his family one day.

Exercise 4.

Complete the sentences with the correct form: *the Gerund* **or** *the Infinitive***.**

1. His girl-friend is giving up _____ a lot of sugary food at last.

 A eating   **B** to eat

2. Martha hopes _____ a fair and famous judge one day.

 A becoming   **B** to become

3. The two badminton players decided _____ the game next Wednesday.

 A playing   **B** to play

4. Ashley admitted _____ a serious mistake in her speech.

 A making   **B** to make

5. Dentists advise children _____ their teeth twice a day.

 A cleaning   **B** to clean

6. Janet promised her brother_____ to the hotel room till night.

 A returning   **B** to return

7. That mechanic denied _____ our father's DVD player.

  A fixing   **B** to fix

8. Ronald is offended. He refuses _____ to the party.

  A coming   **B** to come

9. Kevin is very talented. He has managed _____ his report quickly.

  A typing   **B** to type

10. My uncle can't stand _____ his pipe.

  A smoking   **B** to smoke

11. He doesn't mind _____ his shoes. It is sunny outside for drying them well.

  A washing   **B** to wash

12. Your true friend will remember _____ you if you are in trouble.

  A phoning   **B** to phone

13. Can Mary go outside now? I have finished _____ my project. What about her?

  A preparing   **B** to prepare

14. Have you finished _____ the rule to your groupmate?

  A explaining   **B** explain

15. She wants _____ to Rome to get a better job there.

  A moving   **B** to move

Exercise 5.

Fill in the correct form of the verb: *the Gerund* **or** *the Infinitive* **(with or without** *to***)!**

1. Jacob suggested _____ his scooter there and going on foot. (**leave**)

2. Ask her _____ in. Don't keep lady outside! _____when we find the main engineer. (**come, wait**)

3. Mr Alison tries _____ a good stepfather to his stepdaughters. (**be**)

4. He stopped _____ car oil at that shop and went somewhere else. (**buy**)

5. Mrs Adison tried to avoid _____ on her partners' nerves. (**get**)

6. Does Marek remember _____ her about the project tasks yesterday? (**ask**)

7. As we have read dogs are known _____ a super smell. (**have**)

8. Joseph is not used _____ on the left in Japan. (**drive**)

9. Sarah doesn't mind _____ next to Karen during this lecture. (**sit**)

10. Adam was just about _____ his office when his phone rang. (**leave**)

11. Her white blouse needs _____. (**clean**)

12. Are your friends interested in _____ Mary's love story? (**hear**)

13. Linda can't stand always _____ up her children's room. She hopes that they have to do it themselves one day. (**clean**)

14. Linn used _____ to the university but she hasn't had any time to do

it these days. (**ride**)

15. Granny advised us _____ those sharp knives in the kitchen. (**not touch**)

16. His friends are talking about _____ up their musical activity and _____ in the farm (**give, live**).

17. Is Kate really accusing her boyfriend of _____ her money? (**steal**)

18. Their mother always remind her children: "Don't forget _____ the door!" (**lock**).

19. Richard's favourite hobby is _____ comics in his room in the mornings. (**read**)

20. Elizabeth enjoys _____ for her family. (**cook**)

Exercise 6.

Fill in *the Gerund* **or** *the Infinitive* **form of the verb (with or without** *to*)

1. _____ (**hunt**) is not allowed here.

2. Mum made him _____ (**wash**) his hands.

3. Thank you for _____ (**carry**) my heavy suitcase to the car.

4. Sally crossed the road without _____ (**look**) to the sides.

5. Her grandmother caught her _____ (**eat**). She was really hungry.

6. I intend _____ (**spend**) the week in Berlin.

7. She succeeded in _____ (**persuade**) me to buy a new handbag.

8. We would love _____ (**visit**) our relatives in Italy.

9. He had no difficulties in _____ (**find**) your flat.

10. Paul should _____ (**write**) a report before the lesson.

11. They didn't know what _____ (**expect**) from them.

12. They heard their group mate _____ (**play**) the piano.

13. The police officers warned them _____ (**not get**) too close to the bank.

14. Why do you_____ (**worry**)? Sara isn't a child any more.

15. Clara didn't know where _____ (**put**) her phone.

Exercise 7.

Use *the Gerund* **of the verb OR** *the Infinitive* **to complete the sentences.**

1. Donald agreed _____ us at the cafe at 17:30, but he never showed up.

   A meeting   **B** to meet

2. Your art tutor encouraged _____ with different colours.

   A experimenting   **B** to experiment

3. After the earthquake, Peter chose _____ in Turkey and help with a rescue activity.

   A staying   **B** to stay

4. Kate hopes _____ less money to travel around Ukraine for two weeks. She dreamt about it from her childhood.

   A spending   **B** to spend

5. _____ (sing) is his life. That is why Simon moved to Austria to learn it professionally.

   A singing   **B** to sing

6. Ben can't help _____ how his sister's life would have been different if she had been able to go to university.

   A wondering   **B** to wonder

7. _____ (swim) helped me strengthen my injured leg.

8. Her son's doctor advised _____ his blood as soon as possible.

  A examining   **B** to examine

9. Mark practiced _____ the new words until he sounded just like a native speaker.

  A pronouncing   **B** to pronounce

10. Jeffrey plans _____ (take) part in the scientific conference next month.

  A taking   **B** to take

PASSIVE VOICE

Форма пасивного стану дієслова (**Passive Voice**) вказує, що особа або предмет є об'єктом дії, вираженої присудком, тобто дія відбувається над особою або предметом.

Пасивний стан вживається, коли виконавець дії очевидний або несуттєвий, або коли дія або його результат більш цікаві, ніж виконавець.

This castle **was founded** in the 15ᵗʰ century.

Утворення Passive Voice

Часові форми пасивного стану утворюються за допомогою дієслова **to be** у відповідній часовій формі та дієприкметника минулого часу основного дієслова – **Past Participle**.

Present Simple Passive

> **is/am/are** + V3

A lot of money **are spent** on food weekly for their family.

Past Simple Passive

> **was/were** + V3

That school **was built** nearly 70 years ago.

Future Simple Passive

> **will be** + V3

The answer **will be sent** by mail tomorrow.

Present Continuous Passive

am/is/are + being + V3

Her scooter **is being painted** now.

Past Continuous Passive

was/were + being + V3

The shower **was being taken** yesterday evening.

Present Perfect Passive

has/have + been + V3

The environmental project **has** already **been done**.

Past Perfect Passive

had + been + V3

Those questions **had been answered** before they returned.

Future Perfect Passive

will + have + been + V3

The cake **will have been decorated** by tomorrow morning.

Часові групи *Perfect Continuous* (*Present, Past і Future*) **і** *Future Continuous* **НЕ мають форми пасивного стану. Якщо виникає необхідність вжити один з цих часів, то вони замінюються дієсловом у активному стані або іншим часом.**

Модальні дієслова

Modal verb + be + V3

That insrtuction **should be followed**.

ВЖИВАННЯ *BY* ТА *WITH* У PASSIVE VOICE

1. **Прийменник** *by* **вживається перед суб'єктом (виконавцем дії):**

Those exercises were done **by the students** at the lesson.

2. **Прийменник** *with* **вживається для зазначення інструментів, матеріалів, інгредієнтів тощо.**

The cookies are made **with eggs, cream and flour.**

Exercise 1.

Change the following sentences to *passive voice***.**

1. His children will not return the comics soon.

The comics _____.

2. Has her boyfriend astonished her with his gift?

Has she _____?

3. The tutor persuaded the students to enter the extra course.

The students _____ by the tutor.

4. The schoolchildren haven't continued the contest yet.

The contest _____ yet.

5. Chloe has to sign all the partner's documents.

All the documents _____.

6. Your colleague is going to publish a new text book there.

A new text book _____.

7. Where were your parents catching the bus?

Where _____?

8. The housekeeper had cleaned the hotel room before the guests checked in there.

The hotel room _____ before the guests checked in there.

9. Nobody can lift his niece to his office.

He _____.

10. The waiters are serving dinner downstairs now.

Dinner _____ now.

11. Stewart has broken the grandmother's mirror.

The grandmother's mirror _____.

12. Will our business partners sign that contract after the meeting?

_____?

Exercise 2.

Change the following sentences to *passive voice* **by filling in the correct verb forms!**

1. Patricia walks her dogs twice a day.

The dogs _____ by Patricia twice a day.

2. Our director had invited his guests to the restaurant.

They _____ to the restaurant.

3. Heavy raini had caused the bad harvest in the farm.

The bad harvest _____ by heavy rains.

4. The students are making projects for the final term course.

Projects _____ for the final term course.

5. A stewardess will take your father to his seat according his ticket.

He _____ to his seat by a stewardess.

6. The rescue crew were examining the fire incident.

The fire incident _____ by the rescue crew.

7. The office workers look through the e-mail every working day.

The e-mail _____ by the office workers every working day.

8. William waters his flowers twice a week.

The flowers _____ twice a week.

9. The winner athlete gave an interview to the TV reporters.

The TV reporters _____ an interview by the winner athlete.

10. Our tutors are going to announce the exam results on Friday.

The exam results _____ on Friday.

11. The chief has made some changes in the day menu.

Some changes _____ by the chief.

12. The local eco centre is growing the flowers for the city park zone.

The flowers _____ by the local eco centre.

Exercise 3.

Complete the sentences using the correct form of the *passive voice***!**

1. Scooters _____ in this town instead of public transport. (**not use**)

2. The singer's portrait _____ by the famous artist yet. (**not paint**)

3. The election _____ but nobody has been decided to be the manager yet. (**hold**)

4. Since last Friday my executive director had to work in my office because his one _____ nowadays. (**repaint**)

5. The cheap clothes _____ to that shop every Saturday. (**transport**)

6. The team meetings _____ in their conference hall every Monday.

(**hold**)

7. Nothing _____ of Mark since his lorry accident last week. (**know**)

8. No innovations _____ in the kitchen of that hotel. (**make**)

9. The new oil deposit _____ in the Mediterranean Sea recently. (**discover**)

10. The new technological product _____ from the Ukrainian company next year. (**launch**)

11. The Easter baskets _____ by local producers next month. (**make**)

12. The brother will have to stay at home because our new oven _____.

(**deliver**)

13. The Sport tournament _____ in this town for the first time in 2021. (**organize**)
14. Only breakfasts _____ in these hotels. (**serve**)

15. When Mr Smiths arrived, you _____ by the secretary about it. (**inform**)

16. The castle door _____ since last twenty years. (**shut**)

17. Your pizza _____ to you in a couple of minutes. Please wait for a while. (**bring**)

Exercise 4.

Fill in the correct tense. Use *passive* **or** *active voices* **according to the context.**

1. The old cathedral _____ in the dense wood, not far from the mountains. (**locate**)

2. A new bus stop _____ near your house a month ago. (**build**)

3. When Theodor heard he _____ as the prize winner he shouted loudly. (**name**)

4. It's no use trying _____ our mum's time. (**waste**)

5. We didn't come to your birthday party because we _____. (**not invite**)

6. Too many new office centers _____ in the town five years ago. (**build**)

7. The taxi driver _____ too fast when suddenly the cyclist appeared on the road. (**go**)

8. Steven Spielberg _____ the Academy Award as the Best Director for "Schindler's List" and "Saving Private Ryan". (**win**)

9. John hopes that the stolen car _____ soon. (**find**)

10. The wedding cake _____ but they _____ it to the restaurant yet. (**already buy**) / (**not deliver**)

11. When they discovered that Lily _____ all glasses of fruit juice they got very angry. (**drink**)

12. A thousands of guests _____ in and out this hotel every year. (**check**)

13. The Chief Manager _____ a congratulation speech next Friday. (**give**)

14. A lot of energy _____ on producing plastic bottles. (**spend**)

Exercise 5.

For each sentence, choose either *the active* **or** *the passive form* **of the verb and the correct tense!**

1. Everyone _____ on the right in Ukraine and other European countries except Great Britain. (**drive**)

2. Rebecca _____ by an old Indian lady. (**teach**)

3. Raphael _____ Madonna with Child and Saints. (**paint**)

4. The thieves _____ the value jewellery last week. (**steal**)

5. Vitalii Klitschko _____ the super-heavyweight championship in Italy in 1995. (**won**)

6. Jason _____ Portuguese when he was in Brazil. (**learn**)

7. My keys _____ in my bag at home! Call mum!!!! (**leave**)

8. The Kyiv Metro initially _____ on 6 November 1960 as a single line with five stations. (**open**)

9. Disney _____ four new cruise ships between 2027 and 2031. (**build**)

10. The theatre lobby _____ between 1897 and 1900. (**construct**)

Exercise 6.

The first sentence is in *the active voice*. **Choose the most correct way of saying the same thing in** *the passive voice*.

1. This news surprises Madam Lily.

Madam Lily _____ by this news.

 A will be surprised   **B** am surprised   **C** would have been surprised

2. The nurse told children not to talk in the hall.

Children_____ by the nurse not to talk in the hall.

  A was being told   **B** has been told   **C** were told

3. Our partners would reject the offer.

The offer _____ by our partners.

  A would be rejected   **B** will be rejected   **C** will have been rejected

4. The main chef was interviewing the kitchen servers for the job.

The kitchen servers _____ for the job.

  A has been interviewed   **B** was being interviewed   **C** was interviewed

5. Garry says that men are smarter than women.

Men _____ to be smarter than women.

  A are said   **B** were said   **C** were being said

6. Zara is typing the document.

The document _____ by Zara.

  A is being typed   **B** has been typed   **C** was typed

7. Everyone speaks Ukrainian here.

Ukrainian _____ by everyone here.

  A has been spoken   **B** was spoken   **C** is spoken

8. Megan would have told Tom.

Tom _____ by her.

  A would be told   **B** would have been told   **C** were being told

9. The fire has destroyed the shelter.

The shelter _____ by the fire.

  A is destroyed   **B** was being destroyed   **C** has been destroyed

10. The office workers brought up these data during the meeting.

These data _____ by the office workers during the meeting.

  A is brought up   **B** was brought up   **C** has been brought up

Exercise 7.

Complete the following sentences with *the passive form* **of the verb in brackets.**

1. The knocked down woman _____ to hospital after the crash. (**take**)

2. They decided to astonished us, cookies _____ to all the guests. (**give**)

3. Wedding invitations _____ out ten days before the event. (**send**)

4. The escaped prisoner _____ at the railway station last week. (**see**)

5. The hotel room _____ before their arrival. (**clean**)

6. Medicines _____ to the refugees. (**distribute**)

7. The accident _____ by a driver arguing with his passenger. (**cause**)

8. The new articles _____ in the local magazine. (**publish**)

9. The castle _____ in the 16th century. (**build**)

10. The boss's scream_____ by everyone in the office. (**hear**)

Exercise 8.

Turn the following sentences into *the passive.* **Add the agent when it is necessary.**

1. Edgar Allan Poe wrote many poems, short stories, and one novel.

_____.

2. These people are buying vegetables in the local market.

_____.

3. Rita is helping her flatmates with ironing.

_____.

4. The citizens will always remember their Meer.

_____.

5. Grandmother makes cottage cheese from fresh milk.

_____.

6. Hillary has painted her second portrait.

_____.

7. We must keep the key outdoors before leaving.

_____.

8. Aunt Helen opened all the doors in the house.

_____.

9. The police officer is going to explain the criminal's rights.

_____.

10. The researchers have found the new species of insect in that territory.

_____.

Exercise 9.

Choose the correct forms.

1. Around a hundred hours of video *is uploaded* / *uploads* to YouTube every minute.

2. 100 mobile phones per hour *produce* / *are produced* by these workers at the factory.

3. She *was injected* / *injected* me with a steroid.

4. *Will the student party be held* / *Will we hold the student party* in the café?

5. They *were being edited* / *were editing* the film at his studio.

6. The flowers are dying because they **aren't watering** / *aren't being watered* regularly.

7. The amateur theatre *are performing* / *are being performed* Hamlet this month.

8. The test papers *will be given* / *will give* out in some minutes.

9. That bus stop *rebuilt* / *was rebuilt* in 2013 using regional funds.

10. *Are castle gates unlocked* / *Do they lock the castle gates* at 7 a.m. every morning?

REPORTED SPEECH

Непряма мова (*Reported Speech***)** — це спосіб передати чиїсь слова без дослівного цитування. На відміну від **прямої мови (***Direct Speech***)**, у непрямій ми не використовуємо лапки і змінюємо деякі граматичні форми.

Пряма мова (*Direct Speech***):**

Vlad said, "I am hungry."

Непряма мова (*Reported Speech***):**

Vlad said (that) he was hungry.

<div align="center">

Основні правила перетворення

</div>

1. Зміна часів (*Tense Shift*)

Коли головне речення стоїть у минулому часі (наприклад, *said*, *told*), час у підрядному реченні змінюється на один крок назад:

Пряма мова	Непряма мова
Present Simple → Past Simple	"I study." → He said he **studied**.
Present Continuous → Past Continuous	"I am studying." → He said he **was studying**.
Present Perfect → Past Perfect	"I have sold it." → He said he **had sold it**.
Past Simple → Past Perfect	"I saw it." → He said he **had seen** it.
Will → Would	"I will study." → He said he **would study**.

Якщо головне речення в теперішньому часі (*says*, *tells*), час не змінюється.

2. Зміна займенників (*Pronouns*)

Ми змінюємо займенники відповідно до контексту:

"I am tired." → She said **she** was tired.

"They will believe you." → They said **they** would believe **me**.

3. Зміна обставин часу та місця

Пряма мова	Непряма мова
now	then
today	that day
tomorrow	the next day
yesterday	the day before
here	there
this	that
these	those

4. Вживання "*said*" та "*told*"

Said не вимагає об'єкта:

Vlad said (that) he was hungry.

Told потребує об'єкта:

*Vlad told **me** (that) he was hungry.*

Питальні речення у непрямій мові

Загальні питання (*Yes/No Questions***)**

Ми використовуємо *if* або *whether*:

*"Do they like raisins in the Easter buns?" → She asked **if** they liked raisins in the Easter buns.*

Спеціальні питання (*Wh-questions***)**

Залишається питальне слово, але порядок слів стає стверджувальним:

*"Where do children travel this summer?" → He asked **where they traveled** that summer.*

Накази та прохання (Imperatives)

*"Open the windows." → She told me **to open** the windows.*

*"Don't take it!" → He told me **not to take** it.*

*"Please drop it." → She asked me **to drop** it.*

Exercise 1.

Turn into *Reported speech*.

Model: She said: "I am hungry" – She said (that) she was hungry.

1. Paul said: "He has gone to his grandparents in Italy."

_____.

2. The secretary told me: "They were ready to explain their structure to workers."

_____.

3. Mum said: "Andrew has already read that novel twice."

_____.

4. Harrison informed us: "My company is going to cooperate with its producers."

_____.

5. Sheila promised us: "My author will write the romantic story next week."

_____.

6. The teacher was angry to say: "You had made a lot of mistakes by the end of the test."

_____.

7. Little Jonny told them: "I am playing the violin now."

_____.

8. Dad said: "Sam hasn't fed his dog yet."

_____.

9. Mr. Addison believes: "My son will win the prize in a game!"

_____.

10. The scientists promised: "That experiment will be successful next time."

_____.

Exercise 2.

Choose A, B, C to fill in the blanks in the sentences below:

1. Stephanie told her little brother that she _____ him a chocolate candy.

  A gave   **B** will give   **C** would give

2. The office clerk asked the visitor if he _____ to put his name in the list.

  A had phoned   **B** has phoned   **C** phoned

3. Zara wondered to know if we _____ the appropriate paper for printers.

  A produce   **B** produced   **C** will produce

4. Emma wanted to know if Sam _____ time to go to the concert together.

  A have   **B** has   **C** had

5. Little Justin knew that the Moon _____ round the Earth.

  A goes   **B** went   **C** go

6. The mother said when she looked through the window her son _____.

  A had been dancing   **B** was dancing   **C** danced

7. Larry asked if somebody _____ when they would be at home town.

  A had known   **B** known   **C** was knowing

8. Pamela complained she _____ from Eric for more than a week.

  A didn't hear   **B** hadn't heard   **C** hadn't been heard

9. The manager promised he _____ get enough money to launch a new product at the market.

  A will   **B** would   **C** is going to

10. His brother suggested _____ about their future birthday surprise gift for their grandmother.

  A not argue   **B** didn't argue   **C** not arguing

11. Nicole answered she _____ on her project for four months.

  A had been working   **B** worked   **C** was working

12. Adam inquired why uncle Bob _____ whispering.

  A uncle Bob was   **B** was uncle Bob   **C** uncle Bob is

Exercise 3.

Rewrite the direct speech as reported speech.

1. 'I will miss the last scene of the film the next day.'

Den remembered she said she _____.

2. 'We saw your sisters in Madrid last month.'

It was back in July when they told me _____.

3. 'We are going to give the recommendations to our clerk for his new work place.'

A week ago, they said _____.

4. 'I don't want to give my phone number for his friend.'

After the party, Jane said _____.

5. 'Your flight to Berlin is cancelled.'

We were disappointed when the announcer voice told _____.

6. 'We'll be together forever!'

Two years ago, he told her _____, but then he never came back.

7. 'Journalists pointed out that there was no real proof of that.'

The lawyer explained that _____.

8. 'My parents are going to celebrate their silver wedding anniversary!'

Stella was glad to say that _____.

9. 'I don't need my lunch-box, because I am going to work from home today.'

After breakfast, Olivia told her mum that _____.

10. 'My statement is based on meeting I have had with parents of local schools.'

The minister explained _____.

Exercise 4.

Rewrite the direct speech as reported speech. (Imagine that the speakers were talking to you.)

1. 'I am going to call you after my dancing training,' said Maria.

Maria said _____.

2. 'My sister might change her ringtone tomorrow,' said David.

David said _____.

3. 'Little Johnny had never had a bicycle,' said Mrs Megan.

Mrs Megan said _____.

4. 'Kelly has fixed her lap top, but she was not satisfied with the service,' said Max.

Max said _____.

5. 'You needn't let your phone battery run out,' said my father.

My father said _____.

6. 'Samuel saved her number to his phone book,' said Ursula.

Ursula said _____.

7. 'We'll be flying to Krakow together next Sunday,' said Denis.

Denis said _____.

8. 'It's going to rain today, please put on a raincoat and take an umbrella,' said Mum.

Mum said_____.

9. 'I couldn't find any clean socks in a flat', complained my brother.

My brother complained _____.

10. 'They haven't written their tests yet', explained the tutor.

The tutor explained _____.

Exercise 5.

Rewrite the questions as reported questions. Remember to make the necessary changes to tenses, pronouns and other references (time, place, etc.).

1. 'What does her message mean?' asked Jonny.

_____.

2. 'How reliable was the presented results?' she asked.

_____.

3. 'How many other colleagues have they talked about the new ideas?' the manager asked.

_____.

4. 'Can we discuss this question again after the meeting?' the opponent asked.

_____.

5. 'Who will take the blame for any mistakes in the research?' the organiser asked.

_____.

6. 'What was his own opinion about the decision?' the tutor asked.

_____.

7. 'Are you going to study abroad this autumn?' the aunt Margaret asked me.

_____.

8. 'Have they got any ideas about the decorations for the concert hall?' Helen asked.

_____.

9. 'Will they launch the new device this season?' Indian partners asked.

_____.

10. 'Is Bella singing at the stage now?' asked astonished Freddy.

_____.

Exercise 6.

Complete the reported speech with the correct verb forms and time expressions.

1. 'The international delegation arrived ten minutes ago,' said Stephanie.

Stephanie said that they _____earlier.

2. 'I can pronounce this long word', said Edward.

Edward said that he _____ long word.

3. 'Your family must be at home now,' said Mr Fred.

Mr Fred said that my family _____.

4. 'Our little siblings are sleeping,' said younger brother.

My younger brother said that _____.

5. 'His siters will help her mum tomorrow,' said Laura.

Laura said that his sisters _____.

6. 'I haven't thought about your proposition yet,' said Nicholas.

Nicholas said that he _____ my proposition yet.

7. 'Maria was visiting the Zoo when her brother left home,' said granny.

Granny said that Maria _____ the Zoo when her brother _____.

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8. 'We have never been abroad before the war,' said Lisa.

Lisa said that they _____ abroad before the war.

9. 'This dog was hungry so I have fed it,' little Denis explained.

 Little Denis explained that he _____ that dog because it _____ hungry.

10. 'Rebecca will have finished her fashion project by tomorrow evening,' he said.

He said that Rebecca _____ her fashion project by _____.

Exercise 7.

Choose the correct answers.

1. Ronald **said / told** her to leave him alone in his room.

2. Laura **said / told** me that she was hungry.

3. Rebecca **said / told** to him that she would arrive to Praha at six.

4. Jeffrey **said / told** Martin that his family would like to go on a trip that weekend.

5. Dorothy **said / told** she would be at the university in an hour.

6. Did they **said / told** that they were thinking to enter the college that year.

7. Your sister **said / told** something to you, but you didn't hear it in the concert.

8. Stephanie **said / told** it was easy to hear what the actresses were singing at the stage.

9. They **said / told** that Mr Davidson was a newspaper reporter.

10. 'These books are really informative, **said / told** Rita her students.

Exercise 8.

Report the sentences. Take care to change the pronouns and expressions of time correctly.

1. 'We're all going out for shopping tomorrow,' said mum to grandmother.
_____.
2. 'They went on a business trip to Munich last week,' said Mr. Parker to Mrs. Dali.
_____.
3. 'Mary will call you tomorrow,' said Garry to Michael.
_____.

4. 'I texted Daniella about the new product two hours ago,' said Mary to Bill.
_____.

5. 'He wants you to be in the conference hall in ten minutes,' Oliver told Hanna.
_____.

6. 'They need to read that article for their research,' said Emma.
_____.

7. 'She hated watching horror films at nights,' said Iren.
_____.

8. 'We should read her new blog now,' said my mother.
_____.

9. 'Joanna doesn't want to go to the library this evening,' said her friend.
_____.

10. 'We'd like to borrow your laptop right now,' explained Frank.
_____.

Exercise 9.

Report the sentences using the verbs in the box and a *that* **clause.**

complain	promise	apologize	refuse	admit
explain	demand	suggest	remind	announce

1. 'I've got too much tasks about the house for this day!'
_____.

2. 'My cousin Julie is going to enter my university this year.'
_____.

3. 'I took a taxi to go to the office because I missed my bus this morning.'
_____.

4. 'Your grandfather will take you to the zoo next Sunday.'
_____.

5. 'Why don't we eat out at the nearest café this afternoon?'
_____.

6. 'Don't forget to phone your parents this evening.'
_____.

7. 'My boyfriend broke my car two days ago.'
_____.

8. 'Lily must apologize to Leo and get on well with his family as soon as possible.'

_____.

9. 'She will not give him her phone number tonight!'

_____.

10. 'Go to your room right now,' my dad said to me angrily.

_____.

Exercise 10.

Change the direct questions and imperatives into reported speech.

1. 'What's your name and surname,' asked the hotel receptionist.

_____.

2. 'Where have you lost your key – in your room or in the lounge zone?' asked a porter.

_____.

3. 'Stop laughing and be serious!' asked the dance trainer.

_____.

4. 'Are your cousins studying at college now?' asked Mrs Davidson.

_____.

5. 'How long does it take me to get to the nearest supermarket?' asked uncle Mike.

_____.

6. 'Don't touch these exhibits, they are masterpiece of Modern Art!' the guide told him.

_____.

7. 'Are you reading a new novel?' asked aunt Susan.

_____.

8. 'Will you tell me the whole life story once again?' the granny asked her nephew.

_____.

9. 'Do you understand this road sign?' the police officer asked.

_____.

10. 'Don't play loud music here, old lady will complain again!' the neighbour asked.

_____.

CONDITIONALS

Умовні речення (або *Conditional Sentences*) — це речення, у яких говориться про умову та її можливий результат.

Зазвичай мають дві частини:

if-clause – умова

main clause – результат

Zero Conditional – Нульовий тип

Факти, загальні істини, закони природи.

If + Present Simple, Present Simple

Якщо щось відбувається – завжди відбувається результат.

If you **heat** water to 100°C, it **boils**.

If people **don't eat**, they **get** hungry.

If you **mix** red and blue, you **get** purple.

First Conditional – Перший тип

Реальна ситуація в майбутньому.

If + Present Simple, will + V1

Якщо щось трапиться – буде реальний результат.

If it **rains**, we **will stay** at home.

If I **study**, I **will pass** the exam.

If you **help** me, I **will finish** faster.

Second Conditional – Другий тип

Нереальні або уявні ситуації в теперішньому чи майбутньому.

If + Past Simple, would + V1

Якби щось сталося – наслідок був би інший.

Для дієслова **to be** у всіх особах часто вживається **were**: "If I were you…" (замість *was*)

If I **won** the lottery, I **would travel** around EU.

If he **were** taller, he **would play** basketball.

If we **had** more time, we **would go** out in the evenings.

Third Conditional – Третій тип

Про минулі події, які НЕ сталися.

If + Past Perfect, would have + V3

Якби щось сталося в минулому – результат був би іншим.

If I **had studied**, I **would have passed** the test.

If she **had left** earlier, she **would have caught** the train.

If we **had known**, we **wouldn't have gone** there.

Додатково: Inversion (формальний стиль)

Іноді **if** опускається, і частина з умовою інвертується (формальний стиль):

Had I known, I would have helped. (Instead of: *If I had known*)

Were I you, I would apologize. (Instead of: *If I were you*)

Should it rain, we will cancel the picnic. (Instead of: *If it rains*)

Exercise 1.

Use the verbs in brackets and form *Zero conditional* **sentences.**

1. If Emmy _____ (**to put**) water in her freezer, it _____ (**to become**) ice.

2. As you know, water _____ (**to boil**) if you _____ (**to heat**) it to 100 °C.

3. If little Gary _____ (**to mix**) yellow and blue, he _____ (**to get**) green.

4. Your plants _____ (**to die**) if you _____ (**not/to water**) them enough.

5. If Mary _____ (**to drop**) a China cup on the floor, it _____ (**to break**).

6. Mrs Addison always _____ (**to take**) her umbrella when it _____ (**to rain**).

7. If your baby _____ (**to be**) hungry, it _____ (**to cry**).

8. When Harry _____ (**to heat**) ice, it _____ (**to melt**).

9. When Ann _____ (**to add**) sugar, the tea _____ (**to taste**) sweet.

10. We have learnt when the sun _____ (**to rise**), the street lights _____ (**to go out**).

Exercise 2.

Make sentences with the *Zero conditional***.**

*Model: **(not / rain / the farm crops / die)***

If it doesn't rain, the farm crops die.

1. (Janette / not wear warm clothes / she / have a cold)
_____

2. (Max / mix water and electricity / he / get a shock)
_____

3. (Helen / wake up late / she / be late for her lecture at the college)
_____

4. (Ian / smoke / he/ get dark spots under his eyes)
_____

5. (my friend / cook / he / burn the meat piece)
_____

6. (young people / eat / too much sweet food / they / get overweight)
_____

7. (my children / play outside / they / not get passive in motions)

_____

8. (orphans / not eat well / they / not be healthy)

_____

9. (Nancy / speak to Eva /she / get annoyed)

_____

10. (Granny / feel good the next morning / she / go to bed early)

_____

11. (many friends / come / Franky / have a party)

_____

12. (we / heat ice in a bowl / it / melt)

_____

Exercise 3.

Use the verbs in brackets to make *First Conditional* **sentences.**

1. Sam _____ (**tell**) dad if his brother _____ (**offend**) him again.

2. If Kimberly _____ (**help**) Donna with washing-up, she _____ (**help**) her to translate the article.

3. How _____ Adam (**feel**) if he _____ (**fail**) his job interview?

4. _____ (Hans / **refuse**) me if I _____ (**ask**) him to phone my boss?

5. If Denis _____ (**not panic**), he _____ (**perform**) his new device easily.

6. If Ashley _____ (**not take**) a taxi in time, she _____ (**miss**) her train.

7. Sandra _____ (**not forget**) her close friends, if she _____ (**become**) famous.

8. They _____ (**not move**) a new house, if their mum _____ (**not get**) a new project.

9. We _____ (**not leave**) out flat, if the enemies _____ (**not occupy**) our town.

10. Paul _____ (**publish**) his new novel, if he _____ (**have**) enough time and money for it.

Exercise 4.

Complete the sentences with the correct forms of the verbs in brackets. And finish the sentences to make them true for you.

Model:

*If we <u>get</u> (**get**) wet in a cool and windy weather, <u>we'll have a cold</u>.*

1. If we _____ (**live**) to be 130,

_____

2. If my group-mates _____ (**take**) part in a significant nature project,

_____

3. If my relatives _____ (**leave**) Ukraine forever,

_____

4. If I _____ (**have**) free time this evening,

_____

5. If the people outside _____ (**shout**) loudly,

_____

6. If we _____ (**study**) in the open air at the Pacific Ocean shore,

_____

7. If it _____ (**be**) snowy, frosty and stormy weather,

_____

8. If your parents _____ (**win**) a million pounds in TV show,

_____

9. If your pet _____ (**feel**) sick,

_____

10. If your sibling _____ (**be**) your twin,

_____

11. If you _____ (**live**) alone on a desert island,

_____

12. If I _____ (**build**) a new animal shelter,

_____

Exercise 5.

Rewrite the sentences using *the First* **or** *Second Conditional*.

Model:

You want your parents help you with a rented flat cleaning but they are busy at work.

<u>*If my parents were not busy at work, they would help me with a rented flat cleaning.*</u>

1. Your cousin wants to visit her friend, but she's waiting for his invitation.

_____

2. You want to go for a walk, but it starts to rain.

_____

3. Your friend's thinking of going to the cinema. You have got an urgent task to do.

_____

4. Your little brother wants you to explain the geodesy processes, but you are really busy today.

_____

5. Your grandparents need to buy a newer car, but they cannot afford it this year.

_____

6. Your sister would like to get a job in your company, but it has no vacancies now.

_____

7. You want to visit your relatives in California. You have not got enough money.

_____

8. Your parents want to be in time at the station, but your brother is looking his keys for a long time.

_____

9. You want to sleep on the train and don't feel tired at the end of the journey. Your father doesn't book the sleeper.

_____

10. You need to be in time at university. You reserve a taxi, but it is late because of traffic jam.

_____

Exercise 6.

Complete the second sentence in each pair to mean the same as the first sentence. Use the *Second Conditional*.

1. They can't go for a walk this evening; it is stormy weather outside.

If _____, _____ for a walk this evening.

2. Floe isn't a good geodesy specialist; she doesn't practice enough.

If _____, _____ a good geodesy specialist.

3. Debian can't use his sister's laptop; he doesn't know the password.

If _____, _____ his sister's laptop.

4. Granny hasn't got a pet at home; she is too weak to look after a pet.

If _____, _____ a pet at home.

5. Barbara doesn't go to the beach; it isn't sunny today.

If _____, _____ to the beach.

6. The chief manager doesn't offer Kelly a new project; she isn't reliable enough.

If _____, _____ Kelly a new project.

7. Mark invites us to the restaurant; his wife cannot cook well.

If _____, _____ to the restaurant.

8. We cannot go to Italy this spring; we aren't successful in grant writing.

If _____, _____ to Italy this spring.

9. Leo can't drive a bike; he is too young.

If _____, _____ a bike.

10. They haven't got a lot of money; they cannot travel all over the world.

If _____, _____ a lot of money.

Exercise 7.

Make the following sentences refer to the past.

Model:

If Henry worked hard, he would pass his exams.

*If Henry **had worked** hard, he would **have passed** his exams.*

1. If there were much snow in February, we would go skiing in the mountains.

If _____

2. If the rain stopped, my friends would visit Theodor in hospital.

If _____

3. If the water was warm in the swimming pool, children could swim there.

If _____

4. If they knew any news about him, they would let us know.

If _____

5. The girl would post his letter if he gave it to her.

_____

6. Ashley wouldn't make so many mistakes if she were more attentive.

_____

7. If Richard was not very tired, he would help them.

If _____

8. The Japanese delegation would join us if they came there in time.

_____

9. If Amanda had money with her, she would buy some souvenirs for her sister.

If _____

10. I would ring him up if I knew his telephone number.

_____

Exercise 8.

Complete the following sentences.

1. If I were your teacher …

2. If I were you …

3. If my father were a president …

4. If I were a university graduate …

5. If I knew Chinese well …

6. If it were dark and hot in the room …

7. The Ukrainians wouldn't have gone there if …

8. I would join you if ….

9. My friend would buy a gift for me if …

10. If you had more spare time …

Exercise 9.

Write the *Third Conditional* **sentences and questions.**

1. (if / grandfather / walk / all the way home / he / be / exhausted).

_____

2. (Margarita / take / a taxi / if / she / have / some cash on her).

_____

3. (if / you / find / 10$ / on your way home this afternoon / you / keep it)?

_____

4. (if / Megan / know / it / be / his birthday / she / buy / him / a present)?

_____

5. (Kevin / pass / his final tests / well / if / he / study / better)?

_____

6. (if / they / have / more spare time / they / can / buy / souvenirs at the local market).

_____

7. (what / you / do / you / be / fired / without any reasons)?

_____

8. (if / your groupmates / ask / you / take another seat in the room / you / agree / do it).

_____

9. (Paul / prepare / the presentation / if / he / have / enough time)?

_____

10. (if / they / turn / second right / they / get / lost).

_____

Exercise 10.

Write the *Third Conditional* **sentences. Use the verbs in brackets.**

1. If my mother _____ (**have**) time, she _____ (**call**) her cousin.

2. If your uncle _____ (**drive**) faster, we _____ (**arrive**) to the station before seven.

3. They _____ (**know**) what to do if they _____ (**listen**) to the instructions.

4. If Alice _____ (**get**) to the concert hall earlier, she _____ (**meet**) her friends before their performance on the stage.

5. Miss Julian _____ (**not get**) angry if that old man _____ (**not be**) so noisy and aggressive!

6. Little Lilly ____ (**not hurt**) herself if she ____ (**be**) more attentive with sharp edges.

7. Do you think you ____ (**buy**) a new phone if you ____ (**have**) enough money?

8. He ____ (**not be bitten**) by mosquitos if he ____ (**close**) the balcony door tonight.

9. If we ____ (**book**) a hotel room beforehand, we ____ (**not look**) for hostel room.

10. If she ____ (**eat**) too much fat food, she ____ (**feel**) ill after dinner.

Exercise 11.

Choose the correct variant.

1. If Susan were as clever as Lora, she ____ a promotion in the food company.

  A got   **B** would get   **C** would have got

2. The mother wished she ____ her daughter's secrets.

  A knew   **B** would know   **C** would have known

3. We ____ warm clothes like fur coats in winter if we would live in cold county.

  A will wear   **B** wore   **C** had worn

4. If they ____ the beginning of the lecture, they would have understood it better.

  A didn't miss   **B** hadn't missed   **C** hadn't been missing

5. Adam ____ his mind if Eve had told him everything honestly.

  A wouldn't have changed   **B** won't have changed   **C** won't change

6. If Harrison didn't believe rumours, he ____ much happier.

  A will be   **B** would be   **C** would have been

7. His cousin ____ the army if he had entered the university.

  A wouldn't joined   **B** wouldn't have joined   **C** won't join

8. Joan wouldn't have crashed her car if she ____the rules.

  A had followed   **B** followed   **C** would have followed

9. If the experts ____ by all necessary equipment, they would have failed.

  A hadn't provided   **B** hadn't been provided   **C** hadn't been providing

10. He wouldn't have met her future wife if he ____ at home then.

  A had been stayed   **B** had stayed   **C** stayed

VOCABULARY

A

accuracy	точність
accurate	точний
aerial	повітряний
amalgamated territorial communitiy (hromada)	об'єднана територіальна громада
angle	кут
apex	вершина
attribute data	атрибутивні дані
auto level	автоматичний нівелір
autocorrelation	автокореляція
axis	вісь

B

band	смуга
basic	головний, основний
basic unit of measurement	головна одиниця вимірювання
bathymetry	батиметрія
bench mark	топографічний знак
boundary	межа, кордон

C

cadastre	кадастр
calculation	обчислення
cartographer	картограф
cartography	картографія
chain	ланцюг
choropleth map	фонова картограма
circumference	окружність, довжина кола
cliff	скеля
closely-spaced	близько розташований
compass	компас
computational	обчислювальний
conceptual model	концептуальна модель
contour lines	контурні лінії
coordinate system	система координат
crater	кратер
cutting-edge	найсучасніший

D

database	база даних
dataset	набір даних
data sharing	обмін даними
delimitation	обмеження, розмежування
demarcation	демаркація, розмежування
density	щільність
depression	низовина
descriptor	дескриптор, ідентифікатор

direction	напрямок
downslope	схил, вниз по схилу
drainage	дренаж, водостік
drone	безпілотник
dumpy level	глухий нівелір

E

Earth quadrant	Земний квадрант
ecological environment	екологічно чисте навколишнє середовище
ecologically sustainable	екологічно сталий, стійкий
electronic level	електронний (цифровий) нівелір (рівень)
elevation	узвишшя, підвищення
elimination	виключення, скасування
elongated	подовжений, тривалий
environmental impact	екологічний вплив
Environmental Systems Research Institute (ESRI)	Інститут досліджень систем навколишнього середовища
erosion	ерозія
estimate	оцінювати
equipment	обладнання
executive body	виконавча влада
expertise	досвід, вміння

G

generalization	узагальнення
geocoding	геокодування

geodesy	геодезія
geodetic	геодезичний
geodetic network	геодезична мережа, пункт
geographic coordinate system	географічна система координат
geographic information system (GIS)	геоінформаційна система (ГІС)
geometrical geodesy	геометрична геодезія
geospatial data	геопросторові дані
georeferencing	геоприв'язка
global navigation satellite system (GNSS)	глобальна навігаційна супутникова система (ГНСС)
global positioning system (GPS)	система глобального позиціонування
gradual	поступовий
gravity field	гравітаційне поле
green space	зелені зони
grid	сітка
gully	яр

H

hachure	штрихування
hand level	ручний рівень
height	висота
horizontal accuracy	точність по горизонталі
horizontal angle	горизонтальний кут
horizontal axis	горизонтальна вісь
hydrography	гідрографія

I

implementation	впровадження
inaccuracy	похибка, неточність
increase	підвищувати
infrastructure	інфраструктура
inherent	властивий
innovate	оновлювати, модернізувати
interpolation	інтерполяція
isochrone	ізохрона
isogon	ізогона
isoline	ізолінія
isopleth	ізоплета

L

landmark	орієнтир
land allocation	перезонування
land conservation	охорона земель
land division	розподіл землі
land management	землевпорядкування
land parcel	земельна ділянка
land plot	земельна ділянка
land protection	охорона земель
land relations	земельні відносини
landscape	ландшафт
land surveying	землеустрій
land valuation	грошова оцінка земель
land-use conflict	конфлікти землекористування

land-use map	карта використання земель
land-use policy	політика використання земель
land-use regulation	регулювання використання земель
laser measuring system	лазерна вимірювальна система
latitude	широта
lay down boundaries	встановлення кордонів
lease	оренда
legislative	законодавчий
location	розташування
longtitude	довгота

M

mapmaking	картографія
map projection	картографічна проекція
master plan	генеральний план
measurement	вимірювання
measuring tape	вимірювальна рулетка
meridian	меридіан
meridian arc	дуга меридіана
mixed-use	змішане використання
moratorium	мораторій

N

National Geospatial Data Infrastructure	Національна інфраструктура геопросторових даних
navigation	навігація
non-contact	безконтактний

non-destructive	незламний
normative	нормативний

P

parallel	паралель
parcel	земельна ділянка
pattern	схема, шаблон
physical geodesy	фізична геодезія
pixel	піксель
plain	рівнина
point cloud	хмара точок
polar axis	полярна вісь
polygon	багатокутник
possession	володіння
privatisation	приватизація
projection	проекція

Q

qualitative	якісний
quality	якість
quantitative	кількісний
quantity	кількість
quit claim deed	акт відмови від права власності

R

raster data	растрові дані
ratio	співвідношення
ridge	кряж
reconstruction	реконструкція
reflectorless	не відзеркалюючий
require	вимагати
rod	стрижень, прут

S

safety vest	захисний жилет
satellite geodesy	супутникова геодезія
scope	область, масштаб
sea level	рівень моря
slope	схил
software	програмне забезпечення
solar compass	сонячний компас
spatial data	просторові дані
sphere	сфера
spherical shape	сферична форма
spur	відріг
StateGeoCadastre	ДержГеоКадастр
steep	крутий, урвище
stream gradient	похил річки
surveyor	землеупорядник, землемір
sustainable development	сталий розвиток

T

terrain	місцевість, географічний рельєф
terrestrial	наземний
theodolite	теодоліт
topography	топографія
total station	тахеометр
tripod stand	штатив, тринога

U

unravel	розкрити, розгадати
upslope	вгору по схилу
upstream	висхідний, вгору за течією
urban development	міський розвиток
urban sprawl	урбаністичне розростання

V

valley	долина
validate	перевіряти
variable	змінна
vector	вектор
vector data	векторні дані
vehicle	машина, транспортний засіб
vertical angle	вертикальний кут
vest	жилет
visibility	видимість
visualization	візуалізація

W

warp	згинати, тягнути
warranty	порука, запорука, гарантія
weather	погода
workplace	робоче місце
work out	обчислити

Z

zoning	зонування

GEODETIC ABBREVIATIONS

2D – Two Dimensional

3D - Three Dimensional

A

AAA – analytical and advisory activity

AASTR – Advanced Along Track Scanning Thermal Radiometer

ABGPS – Airborne GPS

A/C – Aircraft

ACE – Advanced Cartographic Environment

ACS – Active Control System

ADP – Advanced digital processing

ADP – Automated data processing

AGRG – Applied Geomatics Research Group

Alt. – Altitude

ALTM – Airborne Laser Terrain Mapper

ALTMS – Airborne Laser Topographic Mapping System

AM – Automated Mapping

ANSI - *American national standards institute*

AOI – Area of Interest

ARC/INFO – is a full-featured geographic information system produced by Esri, and is the highest level of licensing (and therefore functionality) in the ArcGIS Desktop product line. The name refers to its architecture as a geographic information system composed of:

1. geographic input, processing, and output tools ("ARC") with

2. a complementary, but separate database ("INFO")

ASAR – Advanced Synthetic Aperture Radar

ASTER – Advanced Spaceborne Thermal Emission and Reflection Radiometer

AT – Area Triangulation

ATR – Automatic Target Recognition

AVHRR – Advanced Very High Resolution Radiometer

AM/FM – Automated Mapping/Facilities Management

B

BLDG – Building

BM – Bench mark

C

CAD – Computer Assisted Design

CADMAP – Computer-aided drafting, mapping, and photogrammetry

CAS – Centre of Administrative Services

CAT – Computed Axial tomography

CGS – Certified Geomatics Specialist (CIG Certification Program)

CIR – Color infrared

CLIP – Calling Line Identity Presentation

COGO – Coordinate Geometry

COGS – Centre of Geographic Sciences

CORS – Continuously operated reference station(s)

D

DARPA – Defense Advanced Research Projects Agency

DB – Data base

DBMS – Database management system

DCW – Digital Chart of the World

DD – Decimal degrees

DEM – Digital Elevation Model

DGPS – Differential Global Positioning System

DIPS – Digital Image Processing System

DMTI – Desktop Mapping Technologies Inc.

DN – Digital Number

DO – Digital Ortho

DOQ – Digital orthophoto quadrangle

DOQQ – Digital orthophoto quarter quadrangle

DPI – Dots per inch

DQQ – Digital quarter quadrangle

DRF – Digital Raster File

DTD – Digital Topographic Data

DTED – Digital Terrain Elevation Data

DTM – Digital Terrain Model

DVD – Digital versatile disc

DXF – Drawing Interchange File

DXF – Digital Exchange Format

E

ECRF – Earth Centered Reference Frame

EMS – electromagnetic spectrum

ENVISAT – Environmental Satellite

EO – Earth observation

EOF – End of File

EOSAT – Earth Observation Satellite

EOT – End of Text

ERDAS – Earth Resources Data Analysis System

ERS – Earth Remote Sensing Satellite

ERS – European Remote Sensing Satellite

ESA – European Space Agency

ESRI (Esri) – Environmental Systems Research Institute

ETM – Enhanced Thematic Mapper

EVI – enhanced vegetation index

F

FAC – Feature analysis code

FACC – Feature and Attribute Coding Catalog

FACS – Feature Attribute Coding Standard; Feature Attribute Coding System

FCC – False color composite

FOV – Field of view

G

GCP – Ground control point

GDP – GeoConnections Discovery Portal

GEO – Group on Earth Observations

Geol. – Geology

GEOSAT – Geodesy Satellite

GI – Geospatial information

GIS – Geographic Information System

GLONASS – Global Orbiting Navigation Satellite System (Russia)

GMT – Greenwich Mean Time

GN – Grid north

GNSS – Global Navigation Satellite System

GOES – geostationary operational environmental satellite

GPR – Ground Penetrating Radar

GPS – Global Positioning System

GRASS – Geographic Resource Analysis Support System

GRD – Ground Resolved Distance

GRIDS – Grid Referenced Information Display System

GRS 80 – Geodetic Reference System of 1980

GRS – Geodetic Reference System

GUI – Graphical User Interface

GVI – Green vegetation index

H

ha – Hectare; Hektar

HBM – Hydrologic bench mark

HC – Hard copy

HDOP – Horizontal Dilution of Precision

HF – High frequency

HP – Hewlett Packard

HPN – High Precision Network

HSV – Hue Saturation Value

HTML – Hyper Text Markup Language

I

IBC – International Boundary Commission

ICA – International Cartographic Association

IGS – International GNSS Service

ILM – Integrated Land Management

ILMF – International LiDAR Mapping Forum

ILRIS – Intelligent Laser Range Imaging Scanner (Optech)

IM/IT – Information Management/Information Technology

IMAGE – Integrated Mapping and Geographic Encoding System

INS – Inertial Navigation System

InSAR – Interferometric Synthetic Aperture Radar

I/O – Input/output

ISO – International Organization for Standardization

ITRF – International Terrestrial Reference Frame

K

KBPS – Kilobytes per second

KGPS – Kinematic GPS

kHz – Kilohertz

km – Kilometer

L

LANDSAT – Land Satellite

L/C – Land cover

LBS – Location-Based Services

LCA – Land cover analysis

LCD - liquid crystal display

LIDAR (LiDAR) – Light Detection And Ranging

LMS – Large-scale mapping system

LMS – Lidar Mapping Suite

LOS – Line-of-sight

LRS – Linear Referencing System

LSI LiDAR – Services International

M

MB – Megabyte

MCE – Mapping and Charting Establishment

MLW – Mean low water

MRSID – multi resolution seamless image database

MSL – Mean sea level

MSDI – Marine Spatial Data Infrastructure

MTM – Maritime Transverse Mercator

N

NACCSM – National Advisory Committee on Control Surveys and Mapping

NAD – North American Datum

NAD27 – North American Datum of 1927

NAD83 – North American Datum of 1983

NAD83 (CSRS) – North American of Datum 1983 (Canadian Spatial Reference System) an adopted modern datum used in Canada

NAPL – National Air Photo Library

NASA – National Aeronautics and Space Administration

NATO – North Atlantic Treaty Organization

NAVD – North American Vertical Datum

NAVD 88 – North American Vertical Datum 1988

NDVI – normalized difference vegetation index

NIF – National Information Framework

NIR – near infrared

NMAS – National Map Accuracy Standards

NTS – National Topographic System

O

ODC – Open Data Consortium

OGC – Open GIS Consortium

OQ – Orthophoto quadrangle

P

PCA – Principal components analysis

PE&RS – Photogrammetric Engineering & Remote Sensing

PID – Polygon identification number

PID – Property identification number

PIN – Parcel identification number

PK – Peak

PLN – Plan

PLS – Provincial Land Surveyor

PLS – Public Land Survey

PNG – Portable Network Graphic

POES – polar-orbiting operational environmental satellite

POS – Position and Orientation System

PPP – Precise Point Positioning

PSI – Public sector information

Q

QA – Quality assurance

QA/QC – Quality assurance/quality control

QC – Quality control **QGIS –** Quantum GIS **QS** – Quadratic splines

R

RA – Rural area

RADAR – Radio Detecting and Ranging

RADARSAT – RADAR Satellite

RAM – Random access memory

R&D – Research and development

RDI – Resource Data International Inc.

RGB – Red-green-blue

RIP – Raster Image Processing

RMS – Root mean square

RMSE – Root mean squared error

RS – remote sensing

RTK – Real Time Kinematic

S

SAR – Synthetic aperture radar

SDB – Spatial data base

SDE – Spatial Database Engine

SDI – Spatial Data Infrastructure

SDSS – Spatial decision support systems

SGB – Surveyor General Branch

SLAR – Side Looking Airborne Radar

SLP – Slope

SMB – Surveys and Mapping Branch

SMIRR – Shuttle Multispectral Infrared Radiometer

SPC – State Plane Coordinate

SPCS – State Plane Coordinate System(s)

SPOT – Satellite for Earth Observation

SQL – Standard Query Language

Sta – Station

S-VGA – Super Video Graphics Array

SW – surface water

SWIR – short-wave infrared

SYMAP – Synagraphic Mapping System

T

TBD – To be determined

TGO – Trimble Geomatics Office

TIFF – Tagged Image File Format

TIGER – Topologically Integrated Geographic Encoding and Referencing

TIN – Triangular Irregular Network

TIR – Thermal infrared

TIRS – Thermal Infrared Scanner

TM – Thematic Mapper (Landsat); Timber management

TOA – top of atmosphere

TPS – Thin-plate splines; Topcon Positioning Systems

TQ – Topographic quadrangle

TVC – Tagged Vector Contours

U

UAV – Unmanned Aerial Vehicle

URISA – Urban and Regional Information Systems Association

UTC – Universal Time Coordinated; Urban Traffic Control System (Siemens)

UTM – Universal Transverse Mercator

W-X

WMF – Windows Metafile Format

WWW – World Wide Web

W3C – World Wide Web Consortium

XML – eXtensible Markup Language

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

AUDIOSCRIPTS

Audio 1.1

Geodesy and other disciplines

Geodesy has a symbiotic relation with some other sciences. While geodesy supplies geometrical information about the earth, the other geo-sciences supply physical knowledge needed in geodesy for modeling. Geophysics is the first to come to mind: the collaboration between geophysicists and geodesists is quite wide and covers many facets of both sciences. As a result, the boundary between the two sciences became quite blurred even in the minds of many geo-scientists. For example, to some, the study of global gravity field fits better under geophysics rather than geodesy, while the study of local gravity field, may belong to the branch of geophysics, known as exploration geophysics.

Other sciences have similar, but somewhat weaker relations with geodesy: space science, astronomy (historical ties), oceanography, atmospheric sciences and geology. As all exact sciences, geodesy makes a heavy use of mathematics, physics, and of late, computer science. These form the theoretical foundations of geodetic science and thus play a somewhat different role vis-à-vis geodesy. In Figure 2, you can observe the three levels of relations in a cartoon form.

Audio 1.2

The Impact of Geodesy

You may not know it but the study of geodesy, probably, impacts your everyday life.

Geodesy is a field of science concerned with measuring three properties of Earth: its shape, its orientation in space and its gravity field. These properties change over time so it's important that scientists are keeping tabs on are its overall position, as well as, the position of its major parts such as continents, oceans, ice sheets, volcanoes and more. High precision GPS instruments can record millimeter scale movements even over long time frames which enable scientists to detect seemingly small changes to Earth's major features: small changes with potentially hazardous consequences. So, now, that we understand how we obtain this data using geodesy. Let's take a look at how we apply these tools in everyday life.

1. The accumulation of magma in the shallow chamber below volcanoes causes the Earth's surface to actually inflate, deflate and deform with changes in volume. By

monitoring ground deformation in active volcanic zone we can begin to understand the complex plumbing that lies below volcanic features and, hopefully, forecast volcanic eruption.

2. Believe it or not, the Earth's surface also moves up and down during periods of drought. When water is present at or below the surface, the weight pushes the ground downward. So when this water disappears the surface begins to rebound. Entire mountain ranges, like the Sierra Nevada, grow and shrink by several millimeters just from changes in water. High-precision GPS and remote sensing can be used to monitor these small changes and, in turn, monitor drought progression and recovery.

3. Satellite measurements can be used in a number of ways to better understand and respond to devastating earthquakes across the globe. For example, geodesy can be used to quantify ground surface ruptures and identify rock fall hazards. Additionally, remote sensing can be used to detect communities that suffer the greatest damage and deliver aid resources by priority.

4. Geodesy can also aid in the response to man-made disasters like oil spills. Using remote sensing technology we can detect oil spills in real time, hopefully, preventing some serious ecological damage. GPS data allow optical remote-sensing information to be linked with geospatial data. So, scientists know exactly where oil spill has occurred and how best to clean it up.

5. Satellites and remote sensing also have uses in agriculture and forestry. Using this technology, scientists can analyze vegetated areas to assess the overall health of the plants and the soil. We can observe the visible and near- infrared wavelengths reflected by plants to determine the chlorophyll content. In addition, a specialized NASA satellite has been deployed that can measure soil moisture from space. These data produce global soil moisture maps that help us better understands the health of our world's fertile land.

So these are just a few of the ways that geodesy plays a role in our everyday lives.

Audio 2.1

Brief History of Geodesy

Little documentation of the geodetic accomplishments of the oldest civilizations, the Sumerian, Egyptian, Chinese and Indian, has survived. The first firmly documented ideas about geodesy go back to Thales of Miletus, Anaximander of Miletus and the school of Pythagoras. The Greek students of geodesy included Aristotle, Eratosthenes, who made the first reasonably accurate determination of the size of the earth, but which was not taken seriously until 17 centuries later – and Ptolemy. In the Middle Ages, the lack of knowledge of the real size of the earth led Toscanelli to his famous

misinterpretation of the world which allegedly lured Columbus to his first voyage west.

Soon after, the golden age of exploration got under way and with it the use of position determination by astronomical means. The real extent of the world was revealed, to have been close to Eratosthenes's prediction, and people started looking for further quantitative improvements of their conceptual model of the Earth. This led to new measurements on the surface of the Earth by a Dutchman Snellius (in 1610's) and a Frenchman Picard (in 1670's), and the first improvement on Eratosthenes's results.

At about the same time, the notion of the earth gravity started forming up through the efforts of a Dutchman Stevin, Italians Galileo and Borelli, an Englishman Horrox (1619-1641), culminating in Newton's (1642-1727) theory of gravitation. Newton's theory predicted that the earth's globe should be slightly oblate due to the spinning of the earth around its polar axis. A Frenchman Cassini disputed this prediction; consequently, the French Academy of Science organized two expeditions, to Peru and to Lapland, under the leadership of Bouguer and Maupertuis, to measure two meridian arcs. The results confirmed the validity of Newton's prediction. In addition, these measurements gave us the first definition of a metre, as one ten- millionth part of the earth quadrant.

For two hundred years, from about mid-eighteenth century on, geodesy saw an unprecedented growth in its application. Position determination by terrestrial and astronomical means was needed for making maps and this service was naturally provided by geodesists and the image of a geodesist, as being only a provider of positions, survives in some quarters till today.

Audio 2.2.

Modern cartography might seem like a contradiction when considering the historical origins of cartography and traditional map-making. However, cartography remains as relevant as it was centuries ago. The number of students earning degrees in cartography has risen 40% in the past decade to keep pace with the demands of technology and consumer needs. Modern cartography influences our lives in ways that probably don't seem obvious to most of us. Services that are simple for users, such as ordering a rideshare from apps like Uber or Lyft, are only possible due to innovations in modern cartography.

Modern cartography found an essential tool in the use of computers. As technology improves, cartography and the tools related to it improve as well. The new generations of mapmakers and map users are well instructed in the use of computers and of the peripheral instruments that we are so familiar with, like plotters, printers, scanners, along with image processing, spatial analysis and database software.

GIS has become global, and GIS Analysts and Specialists, have emerged as the new gurus of cartographic science. Almost anything can be studied now from a geographic point of view. Also, some technologies that previously were restricted to military uses, like GPS or Remote Sensing, plus the globalization of data, with the use of internet, web mapping services, new software applications, contributed

greatly to the use of GIS and Cartography for more and more applications every day. Modern cartography has led to the creation of numerous digital tools that enhance the accuracy of traditional maps. One example is new technology that addresses color blindness by allowing GIS experts to see what a map looks like to a color-blind individual. Color-coding technology takes the guesswork out of designing maps that are accessible to a larger audience.

Modern cartography tools have also contributed to greater accessibility in urban planning, public education, public safety programs and more. For example, the accessibility index is a geoprocessing tool and script that calculates an accessibility score for destinations. Information from the accessibility index can be used to plan where to build new schools and libraries, or which locations to host after-school programs.

Location intelligence is also an integral piece of modern cartography and disaster management. In understanding how to respond to natural disasters, GIS specialists use location analytics to determine evacuation routes for areas impacted by hurricanes. By using digital maps in conjunction with evacuation route data, GIS professionals can overlay evacuation routes across maps of affected cities or keep visualizations up-to-date for much larger regions.

Today is the transfer of cartography and GIS software applications to mobile devices, but tomorrow is still a big question mark.

Audio 3.1

Old Land Surveying equipment

Land, throughout history, has been an asset for people. Being a symbol of status, prosperity and security; possession over land has been indicated by establishing boundaries and limits over the area covered. The process of laying down boundaries and surveying the land for future use is complex. It requires much efforts and expertise.

In ancient times surveying equipment included chains, compass, solar compass, transit, theodolite and more. Chains with equal size links were used to 30

measure distance between two required points. A compass was used to measure the direction of a line that was being surveyed. A solar compass was used for measuring both the direction and latitude of a particular point with the help of sun and stars. A

Solar Compass could also measure horizontal angles and the "true north" of a particular place. A metallic measuring tape was used to measure shorter distances.

As technology gradually advanced with time, instruments used for surveying also improved. Horizontal and vertical angles were measured using a simple theodolite whereas different heights were measured by a basic level.

In the early 1900s, surveyors started to use surveying equipment such as planimeters, theodolites, automatic levels and measuring wheels. A planimeter is the best known tool for measuring asymmetrical land areas as they eliminate the need for charts or manual calculations; whereas a theodolite allows measuring of horizontal and vertical angles. A theodolite consists of a movable telescope attached over perpendicular axis. It provides precise measurement of angles and is an integral part of every surveying tool kit. A transit is a type of theodolite but has less precision. Measuring wheels were also initially used by surveyors to measure long distances in a short duration of time. Measuring wheels came in two types: mechanical and electrical, and both worked on the same principle of rolling the wheel from the start to the end point.

An auto level or a dumpy level is also a type of surveying equipment used for measuring horizontal levels. It consists of a telescope like device fitted on a tripod stand. Auto level, tilting level, and self-leveling level are all types of leveling instruments, each providing different rotating capabilities.

Most surveying instruments are fixed on a tripod, which acts as a support. As the name suggests, tripods have three legs with length varying capability. Many of these equipments are still used by surveyors around the world.

Audio 3.2.

Today I'm going to demonstrate the setup and use of the automatic level, commonly used on building sites.

Ok, the automatic level is one levelling instrument used on a building site. And there's basically three components in its use. There's the automatic level itself, the tripod on which it sits, and when we take a reading, that's to the staff.

Tripods come in two types. Firstly, there's this one, the dome top. And there's also a flat top. With the automatic level, we generally use a dome top tripod.

The tripod legs have to be placed firmly in the ground and we try and keep the top of the tripod level. The instrument's then removed from its case, and placed on top of the tripod. And it's fixed by a screw from underneath.

So, we can level the instrument using the dome top by loosening the screw and moving it over the dome top, until the bubble is in the middle of the circle.

In the event we can't level it on the dome top, then we have to use the levelling screws. To do that, we need to place the axis of the telescope parallel to the line between two levelling screws. Then by turning the levelling screws both in, or both out, never in the same direction, we bring the bubble adjacent to the centre of the circle. We then rotate the instrument 90 degrees, and use the third levelling screw to bring the bubble into the middle of the circle.

We can then check just by rotating the instrument around through a few locations, to check that the bubble remains in the circle.

These are the features of the automatic level. First we have the telescope, which contain the optics for the level. The eyepiece, which we view through, and within those, we have some crosshairs. This is the focus screw, to bring our target into focus. And here we have a fine adjustment or fine tangent screw, to make very small adjustments to the direction of the level. Sitting on here we have the bullseye level which we level the instrument to. And here we have a prism, which allows us to view that bullseye target from the horizontal direction.

The automatic level is a sensitive piece of equipment which must be cared for. The instrument can't be dropped, and must be transported in its case, well secured.

When setting up the level, ideally you will set it up at eye-height, not as I'm demonstrating now where I have to stoop down to read through the level.

When moving around the instrument, be careful not to place any pressure or put your weight on the tripod legs. This will push the level out of adjustment. And when moving around the tripod, make sure we don't trip over the legs.

And even placing pressure on soft ground adjacent to one of the legs may cause the instrument to go out of level.

Audio 4.1

Earth Sciences: Types of Landforms

The Earth's surface is composed of various landforms, which are formed naturally by wind, water, ice, and tectonic forces. These landforms grow at a different rate; while some form rapidly, others form over millions of years.

Mountains

Mountains are elevated land which is above the adjacent ground. They are formed through tectonic forces, volcanic forces, and wind, water, and ice erosion. Mountains occur on land and in seas and oceans, and they have a tendency of influencing weather and climate.

Plateaus

Plateaus are level uplands that are cut off from the surrounding terrain by steep slopes. Plateaus occur when tectonic plates are colliding or there is volcanic activity. Plateaus usually consist of fertile soil, which can be cultivated for agriculture.

Valleys

Valleys are low areas between hills or mountains. They are formed by glaciers or rivers over millions of years. V-valleys are formed by the erosion of rivers, and U-valleys are formed by glaciers.

Deserts

Deserts are dry, sandy areas with few or no plants due to little rainfall. Deserts are found in rain-shadow areas where mountains intercept wet air. Deserts are extremely hot at daytime and drop significantly at night.

Islands

Islands are landmasses that are surrounded by water. Islands are formed due to volcanic eruptions or geological hot spots. Islands can also be formed by coral reefs, or the uplifting of moving tectonic plates.

Plains

Plains are wide, flat areas formed by erosion, sedimentation, or by lava flows. Plains are fertile and apt for farming.

Rivers

Rivers are natural flowing streams of fresh water from mountains to lakes, seas, or oceans. Rivers play a very crucial role in shaping landscapes and supporting life.

Oceans

Oceans are gigantic saltwater reservoirs covering 71% of the Earth's surface. Oceans regulate climates and are the most important aspect of marine life and global weather.

Glaciers

Glaciers are slow-moving ice masses, created by compressed snow. Alpine glaciers occur in mountains, and continental glaciers occur in polar areas.

Audio 5.1

Topography is the study of the land surface. In particular, it lays the underlying foundation of a landscape. For example, topography refers to mountains, valleys, rivers or craters on the surface.

The origin of topography comes from "topo" for "place" and "graphia" for "writing". It's closely related to geodesy and surveying which are concerned with accurately measuring the land surface. And it's also closely tied to geography and mapping systems like GIS.

Elevation is the distinguishing factor for topographic maps. In GIS, we use digital elevation models for terrain. Nine out of ten topographic maps show contour lines, which are just lines of equal elevation. The narrow definition of topography is specific to the arrangement of landforms.

But in a broader sense, it incorporates natural and artificial features. For example, topographic maps often tie in administrative boundaries, cities, hydrography, parks, landmarks, transportation and buildings.

Engineers use topographic maps to plan a road, construct a cell tower or plan a hydroelectric dam.

Geologists use topography to understand tectonic activity, landforms and where to dig a mine.

Hikers use topographic maps to find trails and steepness of slope to plan their ascent.

Astronomers study the topography outside Earth like on the moon, Mars or an asteroid.

Climate scientists tie topography into climate models to recognize air and water flow.

As landscapes evolve and technology advances, topographers face an uphill battle for accuracy and completeness.

Audio 5.2

Creating an accurate topographic map is a detailed process that can take up to five years. It requires a team of surveyors, engravers, fact-checkers, and printers. Here are the main steps:

Aerial Photography – The area is photographed from the air using special cameras. The photos are taken from different angles to create 3D images, which are later converted into contour lines.

Surveying Control Points – Surveyors determine precise locations of key points, such as road intersections, using latitude, longitude, and elevation data. These points help position the aerial images accurately.

Feature Verification – Field checkers confirm important details, such as whether a stream is seasonal or if a road is private. They may also consult local records and verify the spelling of place names.

Map Compilation – Overlapping aerial photos are processed in a stereoscopic projector to create a 3D terrain view. All contour lines and features are drawn in black, forming the initial map manuscript.

Scribing and Editing – Different map elements are engraved onto plastic sheets, each representing a specific color (e.g., blue for water). The sheets are checked and edited before a final color proof is produced.

Printing the Map – Each color is printed separately using a lithographic press. Some presses can print multiple colors at once, speeding up the process.

This careful process ensures topographic maps are detailed and accurate for navigation, planning, and research.

Audio 6.1

The Future of GIS

While much has been said about the evolution of Geographic Information Science (GIS), what lies ahead is equally exciting. Predicting the future of any technology can be challenging, but current trends offer valuable insights into what's coming next for GIS.

One major direction for GIS is its integration with augmented reality (AR) and virtual reality (VR). As these technologies become more widespread, developers are increasingly incorporating GIS features into AR/VR apps. These tools may soon be used by professionals like architects, utility workers, and city planners to visualize the location and alignment of underground infrastructure. Even game developers could leverage GIS to design realistic, interactive virtual worlds.

This shift represents the merging of 3D and mobile GIS. With 3D spatial data, mobile applications can deliver immersive experiences in real-world environments. The popularity of games like Pokémon Go hints at the vast possibilities for AR-based GIS visualizations in the future.

Overall, the outlook for GIS is bright. Its adoption is set to expand as more industries recognize the business and strategic value of geospatial data. As trends such as data analytics, mobile technology, AR, and the Internet of Things (IoT) continue to grow,

GIS will evolve and play a key role in how these technologies are applied and understood.

Audio 6.2

Understanding GNSS: Principles, Applications, and Modern Receivers

GNSS is a satellite navigation system designed to position (determine the location in space - i.e., the coordinates) of objects. In addition to determining the location of an object, modern navigation systems allow you to determine its direction and speed.

Currently, about 200 organisations collecting GNSS data from base stations around the world are united in the IGS (International GNSS Service), which, in turn, is part of the International Association of Geodesy.

GNSS systems consist of two components: space and ground.

Without going into details, the principle of operation of such systems is to measure the distance from the antenna at the facility to the satellites. Knowing the distances to several satellites whose positions are known with sufficient accuracy, navigation systems use conventional geometric constructions to calculate the location of an object.

The main existing and promising GNSS systems: GPS (USA), GELILEO (EU), BeiDou (China), QZSS (Japan).

In order to improve the positioning accuracy from several metres to centimetres, many countries are creating ground-based beacon systems and an information radio system to transmit differential corrections to users, which can significantly improve the accuracy of coordinate determination.

The differential correction is sent either from geostationary satellites (WAAS, EGNOS, MSAS, etc.) or from ground-based base stations.

The highest accuracy is achieved when using RTK corrections from ground base stations. Such a network called System.NET has been operating in Ukraine since 2011.

In addition to a significant increase in accuracy, the System.NET network allows for a significant expansion of the positioning area: location determination has become possible throughout the mobile network coverage area where GSM/GPRS signals are received, as well as in places with the ability to connect to the Internet via other communication channels.

It also made it possible to: eliminate gross errors in the starting points; support a single international coordinate system; work directly in any required coordinate system; reduce equipment costs; control accuracy directly during measurements; increase labour productivity; use additional services - post-processing of raw RINEX data, use of the generated virtual reference station for post-processing kinematic

measurements (Virtual Reference Station), automatic data processing and accuracy assessment to the server.

Audio 7.1

Rethinking Zoning and Its Impact on Communities

Zoning is a tool that communities use to organize land based on its intended purpose. For instance, certain areas may be designated for commercial or industrial use, while others may limit how many homes can be built. Zoning doesn't just shape our neighborhoods — it influences our daily lives.

Local zoning rules determine where housing, schools, and parks can be located, and who has access to them. Zoning was originally introduced to protect public health, such as keeping people from living too close to factories and being exposed to harmful pollutants.

However, zoning has historically done more than just separate different land uses — it has also separated people. In the early 20th century, some communities used zoning laws to enforce racial segregation, treating people of different races as incompatible as houses and smokestacks.

While civil rights laws later made racial discrimination in housing illegal, many of those barriers were replaced with more subtle forms of exclusion. Today, exclusionary zoning — policies that limit lower-cost or higher-density housing — continue to limit racial and economic diversity. These rules drive up housing costs and make it harder for lower-income residents to live near good schools, parks, and jobs.

This kind of segregation, both racial and economic, harms everyone. It slows down local economic growth and reduces opportunities for upward mobility across communities.

Ironically, while zoning was created to protect public health, it often forces lower-income families into areas with higher pollution — such as neighborhoods near highways — increasing the risk of illness.

But it doesn't have to be this way. If done thoughtfully, zoning can bring people together instead of dividing them. Across the United States, communities are starting to rethink their zoning laws — making room for multifamily housing, encouraging walkable neighborhoods, and supporting inclusive growth.

Audio 8.1.

Problems and challenges of land relations and land management

Land management is an important element of land resources management, including the determination of land boundaries, optimisation of their use, and planning of territory development.

Institutional structure: both public and private organisations are active in the field of land management in Ukraine. State bodies, such as the State Service of Ukraine for Geodesy, Cartography and Cadastre (the 'StateGeoCadastre'), control and regulate land management processes. Private land surveying organisations provide services for the development of land management projects, cadastral surveys, etc.

Modern methods of land management include the use of geographic information systems (GIS), remote sensing and electronic cadastre. These technologies help to ensure the accuracy and efficiency of land management, as well as simplify access to information about land plots.

The transition from a centralised to a market economy was accompanied by a number of problems, including unresolved legislation, conflicts of interest between landowners and local authorities, and corruption in land management.

Today, Ukraine faces new challenges in the field of land relations, including inefficient use of land resources, land pollution, and the need for further liberalisation of the land market.

Among the main development prospects:

1. Development of the land market. Liberalisation of the land market is one of the key areas of development of land relations in Ukraine. The opening of the land market creates investment potential for the agricultural sector and promotes more efficient use of land resources.

2. Improvement of the land management system. Improving the land management system involves the introduction of new technologies, such as GIS and electronic cadastre, as well as improving the legal framework to ensure transparency and efficiency of land management processes.

3. Implementation of international experience. Studying and implementing the best international practices in the field of land relations and land management is an important element of Ukraine's further development. International experience can help solve current problems and promote sustainable development.

Audio 8.2

Types of natural cadastres

Natural cadastres are systems for recording and monitoring various types of natural resources. They provide comprehensive information on the condition, use, protection and legal status of natural objects.

Let us consider the main types of natural cadastres:

1. Land cadastre.

The land cadastre contains information on land plots, including their legal regime, designated purpose, area, soil quality, presence of buildings and other characteristics. It includes information on:

Size and boundaries of land plots

Ownership and use

Purpose and use of land

Cadastral valuation of land plots

2. Water cadastre

The water cadastre covers information on water bodies such as rivers, lakes, reservoirs and groundwater. It includes data on:

Hydrological characteristics of water bodies

Water quality and pollution levels

Water intake and discharge

Legal regime of water resources use

3. Forest cadastre.

The forest cadastre contains data on forests, their area, forest types, timber stock and biodiversity. It includes information on:

The area and boundaries of forests

Composition and structure of forest plantations

Timber stocks and other forest resources

Legal regime and use of forests

4. Subsoil cadastre.

The subsoil cadastre contains information on mineral deposits, their quantitative and qualitative characteristics, depth of occurrence and the legal regime of development and use. It includes information on:

Locations of mineral deposits

Reserves and quality of minerals

Methods of extraction and use

Legal regime of development of deposits

5. Cadastre of protected areas.

The cadastre of protected areas contains data on nature reserves, national parks, zakazniks and other environmental protection objects. It includes information on:

Location and boundaries of protected areas

Types of protected areas

Composition of flora and fauna

Legal regime of protection and use

6. Wildlife cadastre.

The wildlife cadastre contains information on different species of wild animals, their number, distribution and status of populations. It includes information on:

Species and number of wild animals

Distribution areas and habitats

Status of populations and their dynamics

Measures for the protection and use of wildlife

7. Flora cadastre.

The flora cadastre contains data on plant species, their distribution, number and condition of populations. It includes information on:

Plant species and numbers

Distribution areas and habitats

Status of populations and their dynamics

Measures for protection and use of flora

Each type of natural cadastre performs an important function in the system of accounting and monitoring of natural resources. They provide the necessary information for the rational use, protection and restoration of natural resources, as well as for making management decisions at various levels of government.

KEY

Ex 4

1 a

2 g

3 c

4 i

5 h

6 d

7 e

8 f

9 j

10 b

Ex 5

1. The conceptual model was complex but essential.

2. The map used a coordinate system to plot locations accurately.

3. They studied the specific Earth quadrant for their research.

4. Geodesy, the science of measuring the Earth's shape and size, is fascinating.

5. They conducted geodetic measurements for their land survey.

6. The geographic information system (GIS) helped them analyse spatial data efficiently.

7. The study focused on the geometrical geodesy aspects of Earth's shape.

8. The global navigation satellite system (GNSS) technology improved the accuracy of their navigation.

9. They created a map representing variations in the Earth's gravity field.

10. The meridian arc distance between two points on the Earth's surface was measured.

11. The polar axis around which the Earth rotates is crucial in astronomy.

12. The physical geodesy branch of science dealing with Earth's physical properties was their focus.

13. They used satellite geodesy to gather data about the Earth's surface.

14. The average height of the ocean's sea level was used as a reference point.

Ex6

1 True

2 True

3 False (Geodesy helps transportation by improving navigation and reducing costs.)

4 True

5 False (It moves up and down by 30 cm every day due to gravitational forces.)

6 False (Surveying measures distances, directions, and elevations.)

7 True

8 False (Surveying uses both traditional tools, like chains and measuring tapes, and modern equipment.)

9 False (Surveying is used for scientific research, environmental studies, and mapping.)

10 True (Hydrographic and oceanographic surveying help map water bodies.)

Ex 9

1b 2c 3b 4c 5c 6b 7c

Ex10

1 The three main properties of Earth that geodesy is concerned with measuring are its shape, its orientation in space, and its gravity field.

2 High-precision GPS instruments can record millimetre-scale movements even over long time frames, enabling scientists to detect seemingly small changes to Earth's major features that may have potentially hazardous consequences.

3 Monitoring ground deformation in active volcanic zones can help scientists understand the complex plumbing that lies below volcanic features and potentially forecast volcanic eruptions, as the accumulation of magma in the shallow chamber below volcanoes causes the Earth's surface to inflate, deflate, and deform.

4 Geodesy can be used to monitor small changes in the Earth's surface caused by the presence or absence of water, which can help track drought progression and recovery.

5 Satellite measurements can be used to quantify ground surface ruptures, identify rock fall hazards, and detect communities that suffer the greatest damage from earthquakes, in order to prioritise the delivery of aid resources.

6 Geodesy and remote sensing technology can be used to detect oil spills in real-time, link optical remote-sensing information with geospatial data to pinpoint the location of the spill, and guide the clean-up efforts.

7 Satellite and remote sensing technology can be used to analyse vegetated areas and assess the overall health of plants and soil, measure soil moisture, and determine the chlorophyll content of plants, which can provide valuable information for agriculture and forestry.

Ex 11

1 True

2 False

3 True

4 False

5 True

6 False

7 True

8 True

9 False

10 True

Unit 2

Ex 4

1. c

2. g

3. l

4. m

5. n

6. e

7. j

8. a

9. b

10. i

11. d

12. k

13. h

14. f

Ex 5

1 spherical shape

2 cartography

3 mapmaking

4 cartographer

5 map projection

6 geographic information system (GIS)

7 accurate

8 latitude

9 longitude

Ex 6

1 True

2 True

3 False

4 False

5 False

6 True

7 True

8 False

9 True

10 False

Ex 8

1 cartography, GIS

2 cartographers

3 meridians, parallels

4 spherical shape

5 map projections

Ex12

1 e 2 c 3 a 4b 5 d

Unit 3

Ex 4

1. c

2. b

3. h

4. g

5. f

6. j

7. d

8. p

9. e

10. o

11. n

12. m

13. k

14. q

15. l

16. a

17. i

Ex 5

1 tripod

2 theodolite

3 drone

4 total station

5 3D scanner

6 electronic level

7 hand level

Ex 6

1 True

2 True

3 False

4 False

5 False

6 True

7 True

8 False

9 True

10 False

Ex 11

1 True

2 False

3 True

4 False

5 True

6 False

Ex 12

1 level

2 components

3 tripod

4 setup

5 types

6 automatic

Unit 4

Ex 4

1 terrain

2 depressions

3 irregularities

4 ridge

5 peak

6 plateau

7 hollow

8 spillway

9 elevations

10 relief

11 ditch

Ex 5

1. k

2. m

3. l

4. b

5. c

6. j

7. e

8. a

9. i

10. d

11. f

12. h

13. g

Ex 6

1 True

2 False

3 False

4 True

5 True

6 False

7 True

8 True

9 False

10 False

Ex 9

1 plains

2 mountains

3 valleys

4 deserts

5 plateaus

6 oceans

7 glaciers

Unit 5

Ex 4

1h 2a 3e 4d 5g 6j 7c 8f 9b 10i

Ex 5

1. The nomenclature for plants is quite complex.

2. The map uses a scale of 1:50,000.

3. The map includes grid lines that intersect at right angles.

4. The survey uses a geodetic grid of precisely measured points.

5. The topography of the landscape is well-detailed.

6. The coordinate system helps in pinpointing exact locations.

7. The topographic plan shows the elevation of the land.

8. The altitude system accounts for the height above sea level.

9. The topographic map shows the terrain's physical features.

10. The reference frame provides a basis for measuring positions.

Ex 7

1. B

2. B

3. B

4. C

5. B

6. C

7. B

Ex 10

1. f

2. d

3. b

4. a

5. c

6. e

Ex 11

1 False

2 True

3 True

4 False

5 True

Unit 6

Ex 4

1 b

2 g

3 a

4 f

5 d

6 e

7 c

Ex 5

1 He used computational algorithms to solve the problem.

2 The information was stored in a large database.

3 The dataset was analyzed for patterns.

4 The research team engaged in data sharing with other teams.

5 The map included geospatial data about the location of resources.

6 The company innovated a new method to improve efficiency.

7 The study involved quantitative analysis of the results.

8 The software was designed to run on multiple platforms.

9 The study focused on the spatial arrangement of objects.

10 The graph represented the information as a visualization.

Ex 6

1. True

2. False

3. True

4. True

5. False

6. True

7. True

8. False

9. True

10. False

Ex 8

1b 2c 3b 4c 5b 6c 7c

Ex9

1. GNSS is a satellite navigation system designed to position (determine the location in space - i.e., the coordinates) of objects.

2. GNSS systems measure the distance from the antenna at the facility to the satellites, and then use conventional geometric constructions to calculate the location of an object based on the distances to several satellites whose positions are known with sufficient accuracy.

3. The main existing and promising GNSS systems are GPS (USA), GELILEO (EU), BeiDou (China), and QZSS (Japan).

4. To improve the positioning accuracy from several meters to centimeters, many countries are creating ground-based beacon systems and an information radio system to transmit differential corrections to users.

5. The purpose of differential corrections in GNSS systems is to significantly improve the accuracy of coordinate determination.

6. The System.NET network in Ukraine has expanded the positioning area by allowing location determination throughout the mobile network coverage area

where GSM/GPRS signals are received, as well as in places with the ability to connect to the Internet via other communication channels.

7. The System.NET network in Ukraine has also eliminated gross errors in the starting points, supported a single international coordinate system, allowed for work in any required coordinate system, reduced equipment costs, enabled direct accuracy control during measurements, increased labor productivity, and provided additional services such as post-processing of raw RINEX data and the use of a generated virtual reference station for post-processing kinematic measurements.

Ex 10

1. True

2. True

3. True

4. True

5. False

6. True

7. True

8. False

9. False

10. False

Unit 7

Ex 4

1 f

2 i

3 e

4 g

5 j

6 b

7 c

8 h

9 d

10 k

11 l

12 a

Ex 5

1. zoning

2. urban sprawl

3 infrastructure

4. green spaces

5. land-use policy

6. environmental impact

7. land-use conflict

8. land parcel

Ex 6

1. True

2. False

3. True

4. False

5. False

6. False

7. True

8. True

9. True

10. False

Ex 8

1. land-use conflict

2. green spaces

3. land management

4. land parcel

5. land-use map

6. land-use policy

7. land-use regulations

8. master plan

9. mixed-use development

10. urban development

Ex 10

1d 2a 3e 4b 5c

Ex 11

1. separate

2. area

3. industrial

4. zoning

5. regulations

6. zoning codes

7. land uses

Ex 12

1. False

2. True

3. True

4. True

5. False

Unit 8

Ex 4

1b

2d

3c

4h

5a

6g

7e

8f

Ex 5

1. The delimitation of the property was clearly defined.

2. The demarcation of the exact border between the two countries was established.

3. The elimination of outdated software from their systems was decided by the company.

4. The implementation of the new policy was put into effect immediately.

5. The surveyors used a geodetic network for their measurements.

6. The land valuation was assessed by an expert.

7. They agreed to lease the apartment for one year.

8. The government declared a moratorium on new construction.

9. The privatisation of the state-owned companies was carried out by the government.

Ex 6

1. True

2. False

3. True

4. True

5. False

6. True

7. False

8. True

9. True

10. False

Ex 9

1. False

2. False

3. True

4. False

5. True

6. False

7. True

8. True

9. False

10. False

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ENGLISH FOR GEODESISTS AND LAND SURVEYORS
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Навчальний посібник з дисципліни
«Іноземна мова за професійним спрямуванням (англійська)»
для студентів спеціальності G18 «Геодезія та землеустрій»

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