

**Міністерство освіти і науки України**  
**Київський коледж міського господарства**  
**Таврійського національного університету імені В.І. Вернадського**

**АНГЛІЙСЬКА МОВА ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ**

**Методичний посібник для студентів спеціальності**  
**5.05070204 “Експлуатація, ремонт та енергопостачання міського**  
**електротранспорту” / 141” Електроенергетика, електротехніка та**  
**електромеханіка”**

**Київ – 2017**

# АНГЛІЙСЬКА МОВА ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ

Методичний посібник для студентів спеціальності 5.05070204

“Експлуатація, ремонт та енергопостачання міського електротранспорту”/ 141” Електроенергетика, електротехніка та електромеханіка”

Розглянуто та схвалено на засіданні циклової комісії документознавчих дисциплін

Голова циклової комісії Галка Л.Ф.

Протокол № 4 від 10.11.2016

Рекомендовано для студентів денної та заочної форми навчання

Укладачі викладач II категорії  
англійської мови  
Київського коледжу  
міського господарства АМУ

Ракама Л.В.

викладач II категорії  
англійської мови  
Київського коледжу  
міського господарства АМУ

Кулеш Х.Г.

Рецензенти завідувач кафедри  
іноземних мов Академії  
муніципального управління

Поджіо Т.Ю.

викладач вищої категорії,  
викладач-методист

Галка Л.Ф.

## ЗМІСТ

Transport and Municipal Services .....	4
HISTORY OF ELECTRICAL ENGINEERING.....	6
Top 10 facts about electricity .....	7
ELECTRIC POWER GENERATION.....	8
Different Forms of Energy .....	10
History of trolleybuses .....	12
The only double-decker trolleybus outside England.....	17
History of trams.....	19
The structure of trams .....	22
The structure of double-decker tram.....	25
Public transport in the USA .....	27
Public transport in the UK.....	29
Read and translate the dialogue.....	31
First Aid Tips For Electric Shock .....	32
FIRST AID TEST .....	34
The history of underground trains in Ukraine.....	36
Interesting facts about Kyiv Subway .....	39
The 10 most beautiful metro stations around the world .....	40
The Funicular .....	46
History of London Underground.....	49
The rules of life safety at work .....	52
Grammar.....	54
VOCABULARY .....	89
Список використаної літератури .....	103

## Пояснювальна записка

Головна мета курсу “Англійська мова за професійним спрямуванням” – формування навичок практичного володіння англійською мовою в різних видах іншомовленнєвої діяльності в обсязі тематики, що обумовлена професійними потребами; розвиток іншомовних комунікативних умінь у сферах академічного та професійного спілкування в усній та письмовій формах.

Методичний посібник розрахований для студентів денної та заочної форм навчання, для аудиторної та самостійної роботи студентів.

Методичний посібник містить тематичні тексти, словник вживаних у текстах слів та вправи на закріплення граматичного матеріалу.

Запропонований граматичний матеріал є узагальненням для вдосконалення теоретичних та практичних знань, умінь та навичок з предмету.

Тексти з професійних тем охоплюють матеріал, необхідний для професійної підготовки в галузі майбутньої праці.

Підсумком навчальної програми з предмету є залік.

## Transport and Municipal Services

Urban transport in Kyiv is diverse with buses, trams, a funicular, an underground (metro), taxis, and trolleybuses, as well as computer-train stops.

The Kyiv metro is quick, clean, efficient and safe, with three underground lines radiating out from the centre to remote districts. Trains come every minute in the rush hour and you don't have to wait more than a few minutes even late at night.

Metro is also rather cheap. A single-use token allows a transfer from one line to another, or you can buy a monthly pass.

Both are available at any metro station.

Public transport in Kyiv is often crowded. Tickets are sold at any station. Stamp them during your ride in the stamping machines or you may be fined.

The metro uses plastic tokens, which you always buy at the ticket office as you enter metro station, but there may be a queue especially at the start of the month or during the rush hour. One token allows you to travel to any other station on the metro network.

There are a lot of taxi companies in Kyiv. You may also order a taxi via the internet. Taxis waiting in the street are considerably more expensive.

It is easier and cheaper to hail a private car in the street, as owners often act as taxi drivers.

Municipal services are very important for Kyivites : Fire-101, Police-102, Ambulance-103, Gas-104, Telephone Directory and assistance (pay) 109, Train schedule information-005, Ukraine International airlines - 1556.

## Word list

urban transport- міський транспорт

remote districts-віддалені райони

rush hour- година пік

a single-use token- одноразовий жетон

a monthly pass- проїзний на місяць

public transport – громадський транспорт

crowded- переповнений

stamp- ставити штамп, печатку; штампувати, ставити або вибивати

plastic token- пластиковий жетон

kyivites- кияни

telephone directory and assistance- телефонний довідник та допомога

train schedule information- інформація розкладу поїздів

municipal- муніципальний, міський

## Conversation questions

- 1) Do you often use public transport?
- 2) Which is your favourite kind of public transport?
- 3) Are you happy with the public transport system in your country?
- 4) How do you "call" a taxi in your country from the side of the road?
- 5) Is the public transportation in your city efficient?
- 6) Do you feel safe when you use public transportation?
- 8) How do you usually get to work or college in your country?
- 9) Is the public transportation system in your country good?
- 10) Are taxis expensive in your country?

## Complete the dialogue

Fei: Jerry! You're here early. What a pleasant surprise! How did you get here so fast?

Jerry: I flew! I have just parked my airplane across the street...

Fei: No, seriously. You rarely arrive on time.

Jerry: Today I took the subway instead of the bus. It's really convenient .

Fei: Yes, the subway is very fast.

Jerry: As for me I like.....

Fei: I think.....

Jerry: .....?

Fei: It is very expensive for me but.....

Jerry: Have you got a car?

Fei: Yes, .....

Jerry: Public transport in Kyiv is often crowded.

Fei: What do you think about.....?

Jerry: Oh.....

Fei: It's really cheaper!

Jerry: Stamp them during your ride in the .....

Fei:.....

Jerry: .....

Fei:.....

## HISTORY OF ELECTRICAL ENGINEERING

Electrical phenomena attracted the attention of European thinkers as early as the 17th century. The most noteworthy pioneers include Ludwig Wilhelm Gilbert and Georg Simon Ohm of Germany, Hans Christian Oersted of



Denmark, André-Marie Ampère of France, Alessandro Volta of Italy, Joseph Henry of the United States, and Michael Faraday of England. Electrical engineering may be said to have emerged as a discipline in 1864 when the Scottish

physicist James Clerk Maxwell summarized the basic laws of electricity in mathematical form and predicted that radiation of electromagnetic energy would occur in a form that later became known as radio waves. In 1887 the German physicist Heinrich Hertz experimentally demonstrated the existence of radio waves.

The first practical application of electricity was the telegraph, invented by Samuel F.B. Morse in 1837. The need for electrical engineers was not felt until some 40 years later, upon the invention of the telephone (1876) by Alexander Graham Bell and of the incandescent lamp (1878) by Thomas A. Edison. Electrical

### Word list

electrical phenomena- електричні явища

noteworthy- визначний

pioneer-першовідкривач

electrical engineering- електротехніка

summarize-узагальнювати

the basic laws- основні закони

predict-передбачати

radiation- випромінювання

occur-відбуватися

wave-хвиля

incandescent lamp-лампа розжарювання

### Top 10 facts about electricity

- 1) Electricity travels at the speed of light, which is 186,000 miles per second.
- 2) Electricity can be created using water, wind, the sun, and even animal waste.
- 3) When lightning strikes, it flows from the cloud to the ground, but the part we see is actually the charge going from the ground back up into the cloud.

4) Iceland is the country that uses the most electricity annually. Their consumption is about 23% more than the U.S.

5) The world's biggest light bulb is located in Edison, New Jersey. It's 14 feet tall, weighs eight tons, and sits on top of the Thomas Edison Memorial Tower.

6) Electricity is present in our bodies – our nerve cells use it to pass signals to our muscles.

7) The first power plant - owned by Thomas Edison - opened in New York City in 1882

8) Coal is the world's biggest source of energy for producing electricity.

9) The first successful electric car was built in 1891 by American inventor William Morrison.

10) Ever wondered why birds that sit on power lines don't get electrocuted? If a bird sits on only one power line it's safe. If the bird touches any part of its body to another line, it creates a circuit, causing electrocution

## **ELECTRIC POWER GENERATION**

A generator is a device that converts mechanical energy into electrical energy. The process is based on the relationship between magnetism and electricity. In 1831, Faraday discovered that when a magnet is moved inside a coil of wire, electrical current flows in the wire.



A typical generator at a power plant uses an electromagnet—a magnet produced by electricity—not a traditional magnet. The generator has a series of insulated coils of wire that form a stationary cylinder. This cylinder surrounds a rotary electromagnetic shaft. When the electromagnetic shaft rotates, it induces a small electric voltage in each section of the wire coil. Each section of the wire becomes a small, separate electric conductor. The small voltage of individual sections are added together to form one large voltage. The load being connected to

the windings terminals the current appears in the circuit. This current stipulates the electric power that is transmitted from the power company to the consumer.

An electric utility power station uses a turbine, engine, water wheel or other similar machine to drive an electric generator or a device that converts mechanical or chemical energy to generate electricity. Steam turbines, internal-combustion engines, gas combustion turbines, water turbines, and wind turbines are the most common methods to generate electricity.

### Word list

generator – генератор

relationship – взаємовідношення,  
залежність, співвідношення

magnetism – магнетизм, магнітні явища

electricity – електричні явища

discover – виявляти, відкривати

magnet – магніт

coil of wire – котушка (секція обмотки) з дроту

electrical current – електричний струм

flow – рух рідини, течія; текти

electromagnet – електромагніт

series of insulated coils – послідовність ізольованих котушок (секцій)

stationary – нерухомий,  
стаціонарний, сталий

cylinder – циліндр

electric voltage – електрична напруга

section of wire coil – секція обмотки з дроту

load – вантаж, навантаження; завантажувати

winding terminals – затискачі обмотки

circuit – схема, коло, контур, (електр. ) мережа

stipulate – обумовлювати, ставити за умову

consumer – споживач

electric utility power station – електростанція енергосистеми

engine – двигун, мотор

water wheel – гідротурбіна

### **Different Forms of Energy**

When John's alarm clock rings, it *gives out* sound energy. Sound is produced by the vibrations of an object. The louder the sound, the more energy it *carries*.

Food *stores* chemical energy. When John takes in the food, the chemical energy can be changed to other forms of energy for his activities. Fuels, such as coal and petrol, also *store* chemical energy.

Moving objects, such as buses or cable cars, *have* kinetic energy. The faster an object moves, the more kinetic energy it *has*. When two objects are moving at the same speed, the heavier one has more kinetic energy.

When John goes up a hill in a cable car, his potential energy increases. When an object is raised, it gains potential energy. The potential energy in an object increases when it is raised higher.

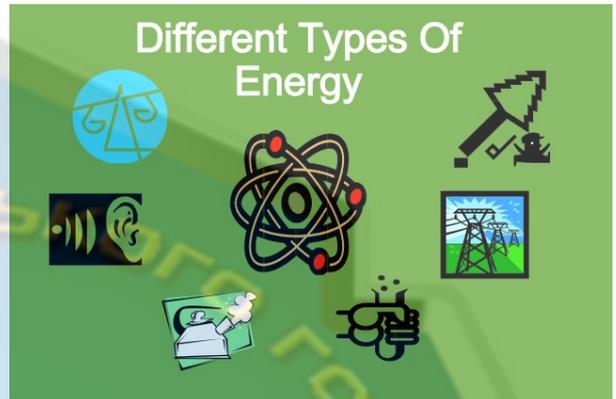
Some objects *have* potential energy when they are compressed, stretched or bent. For example a jack-in-the box can store potential energy in its compressed spring. The pole used by a pole vaulter *contains* potential energy when it is bent.

When John is having a barbecue, the charcoal burns and *gives out* heat energy. Heat energy can increase the temperature of an object. The Sun gives out heat energy. That is why we usually feel hot in the sun.

Many electrical appliances, such as computers and televisions, *use* electrical energy. They change electrical energy to other forms of energy. Electrical energy for most appliances comes from the power station. Some appliances, such as toy cars or small radios, *use* cells to supply electrical energy. The sun gives out light energy.

**Which forms of energy are mentioned in the passage?**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_



Note the verbs which are used in the passage for connecting an object to a form of energy:

- A moving bicycle *has* kinetic energy.
- A television *uses* electrical energy.
- A radio *gives out* sound energy.

**Complete the sentences below with an appropriate verb ( has / uses / gives out):**

1. A match \_\_\_\_\_ chemical energy.
2. A moving sportsman \_\_\_\_\_ kinetic energy.
3. An electric iron \_\_\_\_\_ heat energy.
4. A nuclear submarine \_\_\_\_\_ nuclear energy.
5. A computer \_\_\_\_\_ electrical energy.
6. A CD player \_\_\_\_\_ sound energy.
7. A lamp \_\_\_\_\_ light energy.
8. If you stretch an elastic band, it has potential energy.



## History of trolleybuses

April 29, 1882 – Werner von Siemens presents the first trolleybus in the world in Berlin.

Werner von Siemens rebuilt an open hunting carriage so that it could move without horses or rails.

The vehicle, which was to make history under the name of “Elektromote,” was provided with electric power via an overhead line. A small eight-wheel contact vehicle moving along this bipolar cable served as a current collector. It had to be separately weighted in order not to topple off the overhead line. The contact vehicle was connected with the carriage by two flexible copper cables. These ran down a wooden mast mounted on the carriage to the two main current engines beneath the driver’s seat, which drove the back wheels via steel chains; a functioning differential had not yet been developed.

However, the “Elektromote” never progressed beyond the initial stages, in spite of the fact that in October 1881 Werner von Siemens obtained permission from the city of Berlin to build a test route for the vehicle – although with the injunction that he “must kindly ensure the necessary precautions are taken to prevent of any accidents as a result of the operation of the steam engine (for generating electricity) and the road vehicle.”

### Word list

- vehicle- засіб пересування
- chain ланцюг, ланцюжок
- electric power- електроенергія
- wheel-колесо
- steel - сталь
- precaution- обережність

prevent- попереджати, керувати, запобігати

ensure- забезпечувати, гарантувати

injunction – наказ, розпорядження

permission - дозвіл

bipolar cable- біполярний кабель

steam – пар, енергія

in spite of - незважаючи на; всупереч

copper- мідний

beyond – поза, за межами

obtain- отримати

rebuilt- відновлений, капітально відремонтований, реконструйований

carriage – екіпаж, карета, пасажирський вагон

rail- рейка, залізнична колія

via -путь ,через; згідно маршруту через; 2) шляхом, за допомогою

mast – щогла

mounted – встановлений

functioning – функціонування

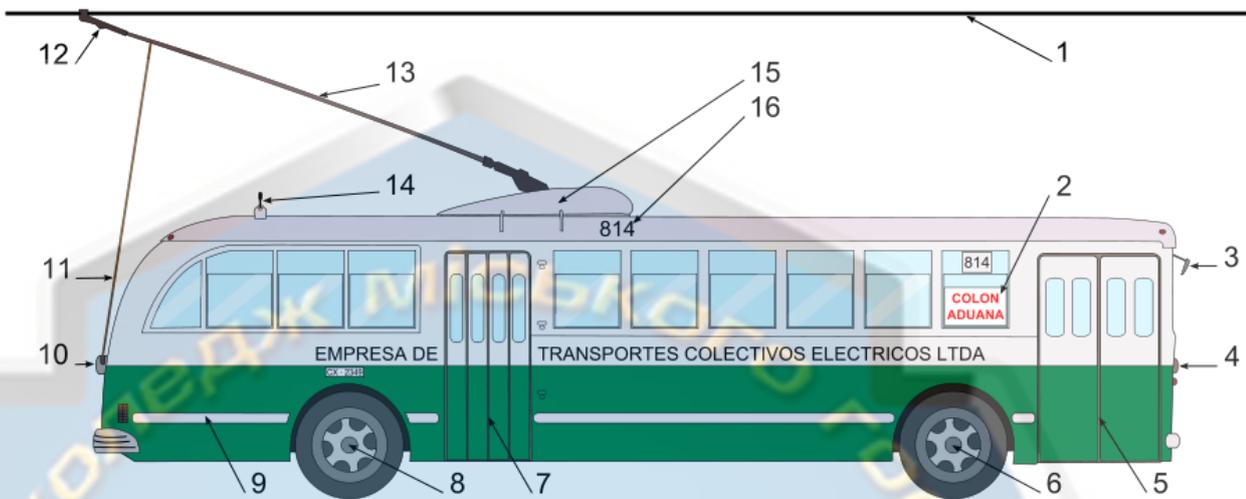
### Complete the sentences

- 1) April 29, 1882 – Werner von Siemens presents...
- 2) Werner von Siemens rebuilt an open hunting carriage so that it could move...
- 3) It had to be separately weighted in order not to topple off the...
- 4) The contact vehicle was...
- 5) These ran down a wooden mast mounted on the carriage...

### Make up questions and answer them

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_

## The structure of trolleybuses



### Word list

1. Overhead line (overhead wires)- контактна мережа
2. Destination or route sign- пункт призначення або маршрутний знак
3. Rear view mirror- дзеркало заднього виду
4. Headlights- фари
5. Boarding (entry) doors-вхідні двері
6. Direction (turning) wheels-направляючі колеса
7. Exit doors- вихідні двері
8. Traction wheels- тягові колеса
9. Decorative elements-декоративні елементи
10. Retractors/retrievers-штанговловлювач
11. Pole rope- трос штанговловлювача
12. Contact shoes- башмак струмоприймача
13. Trolley poles (power collector)- штанги
14. Pole storage hooks- кронштейн фіксації штанги
15. Trolley pole base and fairing/shroud- зовнішнє електрообладнання
16. Bus Number- інвентарний номер тролейбуса

## Complete the sentences

1. An overhead line is used to transmit electrical energy to
  - a) trams
  - b) trolleybuses
  - c) cars
  - d) buses
2. A destination sign is a sign mounted on the front, side or rear of a public transport vehicle, that displays
  - a) the vehicle's route number and destination,
  - b) phone number
  - c) road number
3. A headlights is a lamp attached to the front of \_\_\_\_\_ to light the road ahead
  - a) a vehicle
  - b) trolley poles
  - c) rear view mirror
4. A trolley pole is a tapered cylindrical pole of wood or metal, used to transfer electricity from a "live" overhead wire to the control and the electric traction motors of a
  - a) plane
  - b) tram
  - c) trolleybus.

What is it?



## **The only double-decker trolleybus outside England**

### **Yaroslavl Double-decker trolleybus on Moscow streets**



By the end of 30th of the previous century, there were two levels trolley buses YaTB-3 (ЯТБ-3, it's abbreviation of Yaroslavl Trolley Bus) on Moscow streets. They were made on Yaroslavl automobile plant. After 70 years there are no those trolleybuses, no those plant which produced them (now it's Yaroslavl Diesel Engine Plant "Avtodiesel"). How did they appear and why did they disappear?

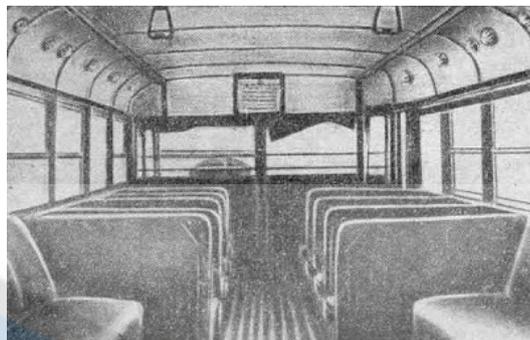
The first YaTB-3 was made on June, 22th in 1938 year and in four days — the second. Initially there were only two machines, but in 1939 else eight were produced. The basis of a construction was two levels city trolley bus (the model of 1935 year) of England company "English Electric Company". At the first time the design was changed a bit for our conditions: the steering wheel was transmitted from the right side to the left side. English variant had only one back entrance, but YaTB-3 had both front and back doors. The trolleybus was 9,5 meters in width and 4,7 meters in height, could contain 72 sitting passengers (32 — on the first floor and 40 — on the second) and 28 standing passengers but only on the first level. The engine had 75 kilowatt (101 hp) and could reach 54 k/h.



At that time YaTB-3 had lot of new technical features: a ventilation, an electrical heating, a stylish cabin, an indicator board "There are no seat left". The trolley bus was all metal.

Unfortunately, experience suggested that it was very complicated to control this machine in our Russian condition. Also there were lots of disadvantages of the machine: high center of gravity, low height of the cabin, bad driving in the winter and others.

By the end of 1939 year Moscow government decided to discontinue the exportation of the trolleybuses. Alack, there are no any example of those trolleybuses — it was the only double-decker trolley bus which was produced outside England.



### Word list

appear- з'являтися, показуватися

experience- досвід, випадок, враження

discontinue- припиняти, зупиняти

disappear – зникати, ховатися

reach- досягати, протяжність

double-decker- двоповерховий

initially - з самого початку, спочатку; на ранній стадії

basis – основа

steering - управління кермом, руління, керованість, рульове управління

wheel – колесо

entrance – вхід, вхідні двері

width – ширина

alack- на жаль

suggested – запропонований, навіяний

feature- особливість, властивість, показувати, відрізнятися

gravity – вага, сила тяжіння

complicated – складний, важкий

condition – стан, положення

government – уряд, керівництво

## Conversation questions

- 1) What do you know about double-decker trolleybus?
- 2) What is The structure of trolleybus?
- 3) Who is Werner von Siemens?
- 4) How did double-decker trolleybuses appear and why did they disappear?
- 5) What happened in 1939?

## History of trams

For the 86 years between 1878 and 1964, public transport in Wellington was dominated by the tram. Today we might think of trams as a heavy, antiquated form of public transport, but for an earlier generation they went beyond being a cheap way to move around the city - they were one of the most important infrastructural developments in Wellington's history and their impact can still be seen today.



The history of tramway development in Wellington can be separated into two distinct periods - from 1878 to 1904, and from 1904 to 1964.

### Beginnings (1878-1904)

The first trams in Wellington looked more like small steam trains. Launched in August 1878, they consisted of a small steam engine which hauled a single passenger car. For a number of reasons the steam trams were not a success. They belched smoke and fumes, were noisy, and their heavy weight hammered the mild steel rails which needed constant repair. The noise problem was of particular concern as they could easily frighten the horses used for pulling cabs and carriages. Panicking horses were more than just a nuisance - they could be deadly to pedestrians.

Because of these reasons, in 1882 the heavy steam trams gave way to a return to older technology - horse drawn trams.

1900 marked the year which saw the beginning of the changes that would lead to trams changing the face of Wellington.

#### Later years (1904-1964)

For the next 50 years, life in Wellington was dependent on the tram as a means of transport, but gradually city planners began to realise that their days were numbered.

Though Wellington's trams now exist only as museum pieces, their legacy can still be seen today.

#### **Word list**

antiquated form of public transport- застарілий засіб громадського транспорту

infrastructural- інфраструктура

impact- вплив

steam train- паровий потяг

launch- запускати

haul-тягнути

for a number of reasons- по ряду причин

belch- викидати

fume- дим

noisy- шумний, гучний

generation- покоління

beyond- за межами, далеко

hammer- наносити удари, стукати, стукати, убивати

mild - м'який ,слабкий

steel rails – сталеві рейки

constant – постійний, безперервний

particular- особливий; специфічний, частковість, подробиця, деталь

frighten - лякати

cab – екіпаж, кабіна

nuisance - досада, прикрість, неприємність, перешкода, незручність

pedestrian – пішохід

gradually – поступово, послідовно

though – однак, проте

legacy – спадок, спадщина

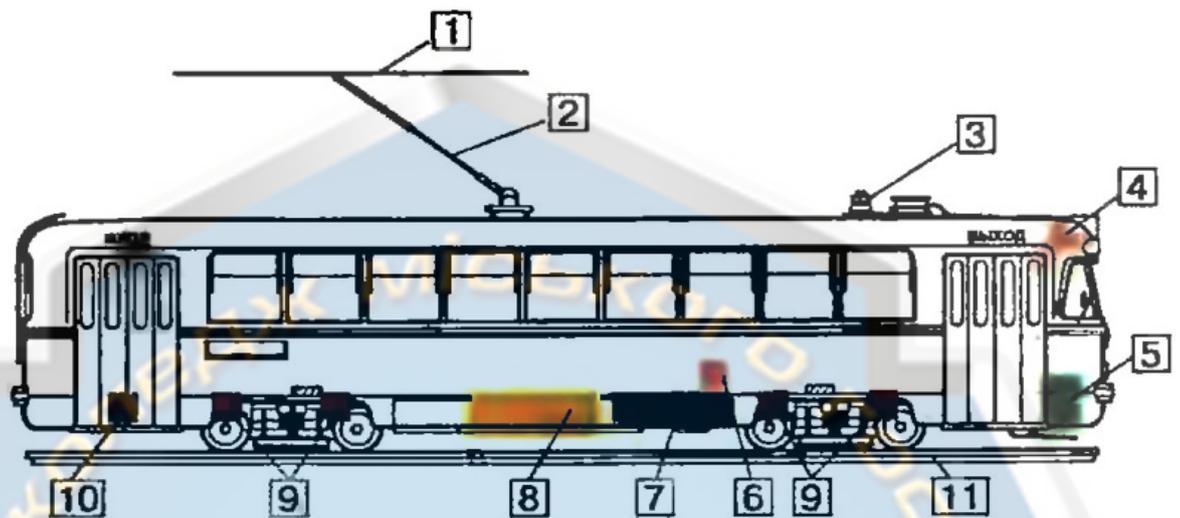
### Complete the sentences

- 1) For the 86 years between 1878 and 1964, public transport in Wellington was \_\_\_\_\_ by the tram.
- 2) The history of tramway development in Wellington can be \_\_\_\_\_ into two distinct periods - from 1878 to 1904, and from 1904 to 1964.
- 3) The first trams in Wellington looked more like small \_\_\_\_\_.
- 4) They belched smoke and \_\_\_\_\_, were \_\_\_\_\_, and their heavy weight hammered the mild \_\_\_\_\_ which needed constant repair.
- 5) The noise problem was of particular concern as they could easily \_\_\_\_\_ the horses used for pulling \_\_\_\_\_ and carriages.
- 6) Panicking horses were more than just a nuisance - they could be deadly to \_\_\_\_\_.
- 7) Though Wellington's trams now exist only as museum pieces, their \_\_\_\_\_ can still be seen today.

### Put the letters into the correct order to make a word

- 1) M-U-F-E \_\_\_\_\_
- 2) A-N-I-P-D-E-E-S-T-R \_\_\_\_\_
- 3) C-A-Y-G-E-L \_\_\_\_\_
- 4) N- B-Y-E-D-O \_\_\_\_\_
- 5) L-Y-L-G-U-A-A-R-D \_\_\_\_\_

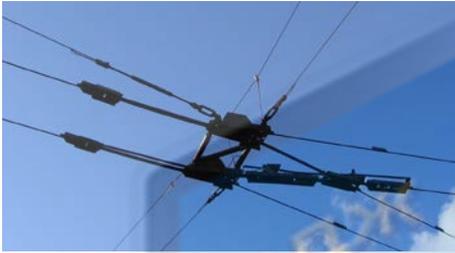
## The structure of trams



- 1 – contact wire (контактний провід)
- 2 – collector (струмоприймач)
- 3 – lightning arrester (грозозорядник)
- 4 – the main breaker (головний автомат)
- 5 – controller driver (контролер водія)
- 6 – group board (груповий розподільний щит)
- 7 – contactor boxes (контакторні ящики)
- 8 – rheostat (реостат)
- 9 – traction motors (тягові двигуни)
- 10 – battery (акумуляторна батарея)
- 11 – rail (рейка)

Match the words and make up sentences about trams

1.



2.



4.



3.



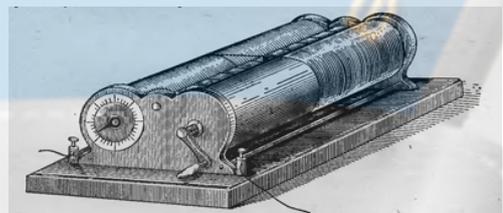
5.



7.



6.



- a) rheostat
- b) rail
- c) controller driver
- d) contact wire

- e) lightning arrester
- f) traction motors
- g) collector

## A double-decker tram

A double-decker tram is a tram that has two levels. Double-deck trams were once popular in some European cities, like Berlin and London, throughout the British Empire countries in the early half of the 20th century including Auckland, Christchurch and



Wellington in New Zealand; Hobart, Tasmania in Australia and in parts of Asia. They are still in service in Hong Kong, Alexandria, and Blackpool. Some double-decker trams had open tops. Hong Kong Tramways is the only tram company in the world that operates double-deck trams exclusively.

The earliest double-deck trams were horse drawn. The first electric double-deck trams were those built for the Blackpool Tramway in 1898, one of which survives at the National Tramway Museum. They were common in the United Kingdom until the 1950s. London Transport was a heavy user of double deck trams until the system closed in 1952. Apart from the Blackpool tramway, the Glasgow Corporation Tramways were the last to close (in 1962). Some have been preserved at the UK's National Tramway Museum, New Zealand's MOTAT Museum in Auckland and Ferrymead Museum in Christchurch. The last double deck tram built in Britain was Blackpool "Jubilee" Class No.762, which entered service in 1982. Although it used parts from older cars, it was considered to be an entirely new tram. On this basis, when it was retired in 2011, it was gifted to the National Tramway Museum, Crich.



## Word list

open top- відкритий верх

operate- діяти, працювати, експлуатувати

horse drawn –кінні

common – громадський, загальний, загальновідомий, поширений

apart from - не беручи до уваги, не говорячи про

preserve- зберігати, підтримувати

jubilee- ювілей, свято

entirely- цілком, винятково, лише

basis – основа, підстава

retire - віддалятися, піти, вилучати з обігу

gift – подарунок, дарувати

## Conversation questions

- 1) What do you know about double-decker tram?
- 2) Were double-deck trams once popular in some European cities? Which cities?
- 3) When was the last double deck tram built?
- 4) Why London Transport of double deck trams was closed in 1952?
- 5) What do you know about the National Tramway Museum?

## The structure of double-decker tram

Passenger doors – пасажирські двері

Driver's cab- кабіна водія

Lower deck-перший поверх

Upper deck-верхній поверх

Seats-сидіння

Stairs to upper deck-сходи на верхній поверх

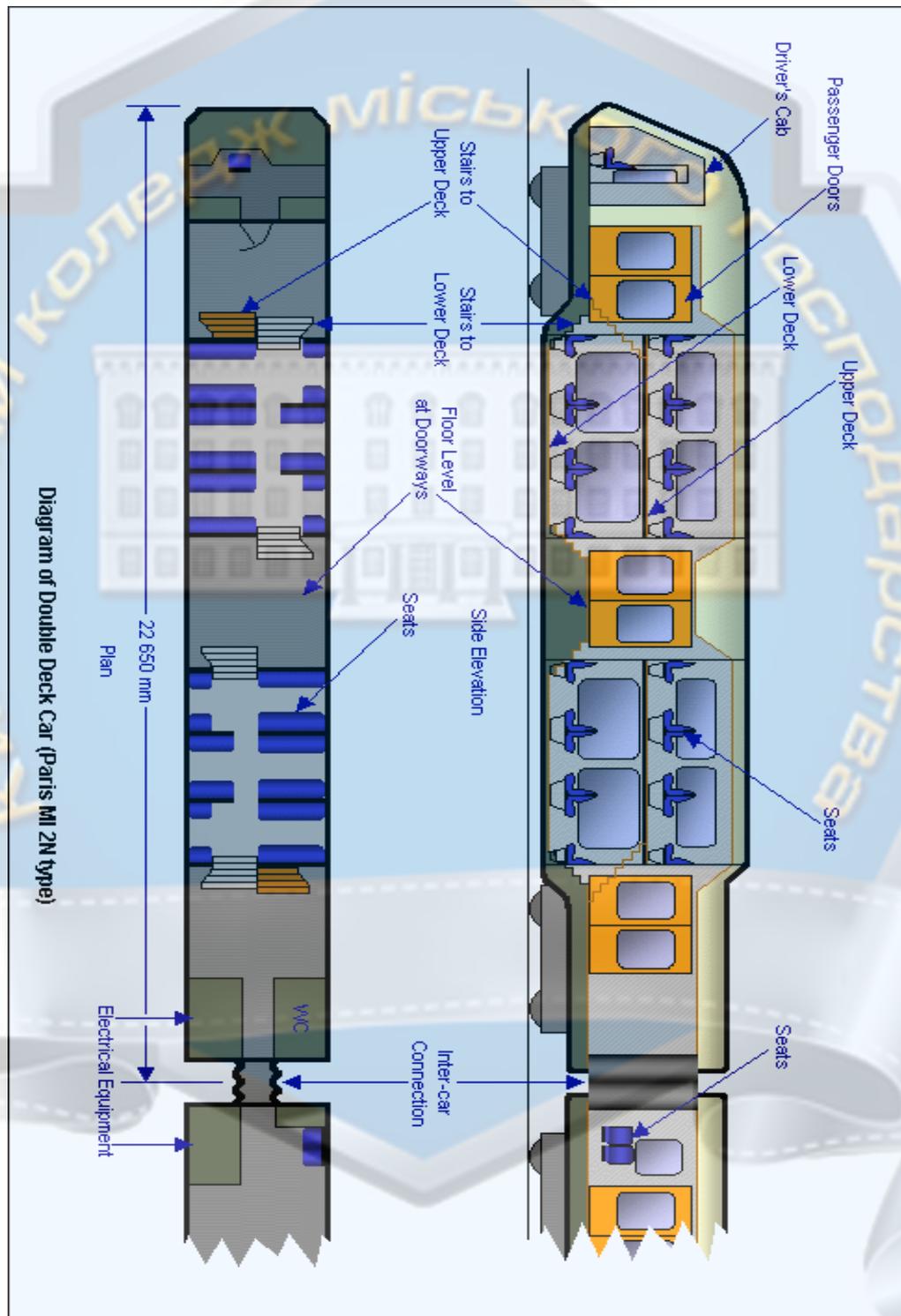
Stairs to lower deck-сходи на перший поверх

Floor level at doorways- рівень підлоги у дверному отворі

Side elevation- вид збоку

Inter-car connection- з'єднання між вагоном

Electrical equipment- електричне обладнання



## **Public transport in the USA**

Except in large US cities, public transportation is rarely the most convenient option for travelers, and coverage can be sparse to outlying towns and suburbs. However, it is usually cheap, safe and reliable.

### Airport(Shuttles )

Shuttle buses provide inexpensive and convenient transport to/from airports in most cities. Most are 12-seat vans; some have regular routes and stops (which include the main hotels) and some pick up and deliver passengers 'door to door' in their service area. Costs range from \$15 to \$30 per person.

Bicycle Some cities are more amenable to bicycles than others, but most have at least a few dedicated bike lanes and paths, and bikes can usually be carried on public transportation.

### Bus

Most cities and larger towns have dependable local bus systems, though they are often designed for commuters and provide limited service in the evening and on weekends. Costs range from free to between \$1 and \$3 per ride.

### Subway

The largest systems are in New York, Chicago, Boston, Philadelphia, Washington, DC, Chicago, Los Angeles and the San Francisco Bay Area. Other cities may have small, one- or two-line rail systems that mainly serve downtown.

### Taxi

Taxis are metered, with flagfall charges of around \$2.50 to start, plus \$2 to \$3 per mile. They charge extra for waiting and handling baggage, and drivers expect a 10% to 15% tip.

### Hitchhiking

Hitchhiking in the USA is potentially dangerous and definitely not recommended. Hitchhiking on freeways is prohibited. You'll see more people hitchhiking in rural areas and in Alaska and Hawaii, but these places aren't safer than anywhere else, and with sparse traffic, you may well get stranded

## Word list

- except- крім, за винятком, виключати
- rarely- рідко, надзвичайно, винятково
- option- вибір
- outlying- віддалений, далекий
- suburb- окраїна, передмістя
- reliable- надійний, міцний
- inexpensive- недорогий, дешевий
- van- фургон, вагон
- route- маршрут, шлях, курс
- amenable- схильний
- dedicated- спеціальний
- path- велосипедна доріжка
- mainly- здебільшого
- charge- плата, призначати, пропонувати
- extra- особлива плата, націнка
- hitchhiking – автостоп
- definitely- звичайно, безсумнівно
- freeway - автострада
- prohibited- заборонений
- rural- сільський
- sparse - рідкий, нещільний; розкиданий, розсіяний
- traffic- рух, транспорт, дорожній
- strand- сідати на мілину, потрапити в скрутне становище

## Conversation questions

- 1) What public transportation services are available in the USA?
- 2) Is public transportation safe?
- 3) What is your favorite form of transportation?

- 4) Do you have a bicycle? If so, how often do you use it? If not, do you want one?
- 5) What do you think is the safest way to travel?
- 6) Is hitchhiking prohibited in the USA? Why?

### **Public transport in the UK**

Public transport in the UK offers you a lot of ways of getting around the country. You can travel by train, bus, or taxi.

#### Travelling by Train

Public transport in the UK includes a comprehensive railway system that allows you to reach almost every smaller or bigger town by train. There are different companies which maintain the national and regional networks. Thus, as always, ticket prices vary considerably. In any case, taking the train is a very relaxed way to travel. Fast trains allow you to easily commute between cities and airports. For instance, it only takes 15 minutes to travel from London Heathrow to the city center.

The factors which determine the actual price of your train ticket include the distance and time of your journey. The network you travel on and how long in advance you book your ticket can make a difference as well.

#### Travelling by Coach and Bus

Travelling by coach is not only a valid choice for getting to the UK but also for exploring the country while on a budget. There are different companies which offer connections from one point to another, often including special tours to historical places.

Of course, you can easily get around cities and towns by bus. The local bus networks are run by different companies and it makes a lot of sense to contact them individually for ticket prices and time tables. You can buy the ticket directly from your driver or from local travel centers. Please remember that single tickets are valid for individual journeys only.

## Taking a Taxi in the UK

If you have to get from point A to point B quickly, have a lot of luggage or if you just don't want to bother with public transportation in the UK, taking the taxi might be a convenient alternative. You should keep in mind, of course, that taxis are not available everywhere in the UK. However, they are prevalent in bigger towns and particularly in London, where the black taxis have become rather famous.

You can always hail a taxi in the street if it has switched on its yellow "For Hire" sign. If you are unsure where to find a taxi, local train stations or airports are a great place to start. In addition to the fare, as shown on the meter, you should pay the driver at least a 10% tip.

### Minicabs

Minicabs are a low-cost alternative to taxis or public transport in the UK, but have to be hired in advance. Unlike taxis, they do not have a meter. This is why you should ask the operator or the driver about the price before you embark on your journey. Please remember to only use licensed minicabs, especially in big cities like London, to ensure your own safety. After all, minicabs from unlicensed providers are illegal, uninsured, and potentially unsafe for their passengers.

### **Word list**

offer- пропонувати, надавати

comprehensive- широкий, комплексний, всебічний

allow – дозволяти

reach –діставати, брати

maintain - обслуговувати; тримати в гарному стані

considerably – значно, багато

commute - (щоденна) поїздка на роботу і назад, їздити щодня

for instance – наприклад

Heathrow- Хітроу (аеропорт у Лондоні)

determine – визначати, спонукати

coach - міжміський автобус

valid- ефективний, обґрунтований, діючий  
exploring - дослідження; подорожі з метою дослідження (невдомих районів)

budget- бюджет, гаманець

local – місцевий

time table- розклад, графік

directly- безпосередньо, одразу

single ticket- одноразовий квиток

bother –занепокоєння, турбота, хвилювати, турбуватися

convenient – зручний, підходящий

prevalent – розповсюджений, домінуючий, переважаючий

particularly – особливо, надзвичайно

hire- прокат, здача, наймати

sign- вивіска, знак, оголошення

unsure – небезпечний, ненадійний

in addition – крім того, до того ж

fare – плата за проїзд

tip –чайові

minicab- міні-таксі, маршрутчик

embark –починати, сідати, вантажити

licensed- ліцензійний

ensure- забезпечувати, гарантувати, страхувати

illegal – незаконний, нелегальний

### **Read and translate the dialogue**

Lisa: Hi

Victoria: Hi Lisa. What's up?

Lisa: I'm looking for the airport. Can you tell me how to get there?

Victoria: No, sorry. I don't know.

Lisa: I think I can take the subway to the airport. Do you know where the subway is?

Victoria: Sure, it's over there.

Lisa: Where? I don't see it.

Victoria: Across the street.

Lisa: Oh, I see it now. Thanks.

Victoria: No problem.

Lisa: Bye.

Victoria: Bye.

### **First Aid Tips For Electric Shock**

Electric shock may injure the nervous system and burn the skin and deeper tissues. If powerful enough, the electric current may stop the heart. Even low-voltage household currents can be dangerous, particularly when the skin is moist.

When you see an electric shock victim, then first of all find the power supply switch and disconnect it.

If you can't turn off the current then the victim must be pulled away from the source. Don't touch the victim with your hands. Use a dry wooden pole or any such things which do not conduct the current. You may have to use a bit of force to separate the victim from the electric source.

Since the victim gets stuck to the source, the first thing you must do is to separate him or her from it. Don't immediately touch the victim and take care to wear rubber shoes or sandals. Keep your body especially the hands dry.

Don't stand on anything that is wet, instead place clothes or paper.



After you have separated the victim, check the pulse to see if it is slow or normal. If the breathing is slow then you can administer Cardiopulmonary Resuscitation .

Lay the victim such that the head is slightly lower than the body and also rise the legs a little. Take care not to move the victim much so as not to aggravate other injuries and cover him or her with a blanket to keep warm.

If there is no severe injury give the victim warm fluids to drink.

Also, do not cover the body area if there is a burn, instead rinse it in cold water. Apply anti burn cream and then dress it.

As soon as possible call for emergency medical attention. Extreme pain can result in shock and also heart attack so it is better to call for an ambulance. In case of heart attack you can apply chest compression to maintain the blood flow to the brain, heart and lungs. This should be done with care and don't attempt if you are not confident enough.

#### Word list

injure- забити, ушкодити, поранити

tissue – тканина

electric current- електричний струм

low-voltage- низьковольтний

moist- сирий, вологий

victim- постраждалий

supply- живлення

switch- вимикач

source- джерело

dry- сухий

wooden- дерев'яний

pole- палиця

conduct- проводити(струм)

bit- шматок, трохи, частина

force- сила, міць

separate- роз'єднувати; відділятися

immediately- негайно, безпосередньо, як тільки

rubber shoes- гумове взуття

administer- робити, надавати; проводити в життя

Cardiopulmonary- серцево-легеневий

Resuscitation- реанімація

slightly- злегка, небагато, ледве; слабо

aggravate- пошкоджувати, погіршувати, підсилювати, загострювати

injury - шкода, травма

severe- важкий, серйозний

fluid- рідина

rinse –промивати

apply- використовувати

dress- перев'язувати (рану)

emergency medical attention- невідкладна медична допомога

maintain- підтримувати

brain- головний мозок

confident- упевнений

### **FIRST AID TEST**

1) Your check of the scene suggests that a victim has suffered an electrical shock. The first thing to do is....

- a) Cover all burns with a dry loose dressing.
- b) Ask a bystander to help you move the victim.
- c) Place the victim on one side with the head down.
- d) Make sure the power is turned off.

2) You are caring for a victim with a burned hand. Put the hand in cool water if....

- a) The burns are very deep

- b) There are burns with open blisters.
  - c) The burns are minor with no open blisters.
  - d) You should put the hand in cool water for all of the above.
- 3) Why should you cover burns with a clean or sterile dressing?

- a) To prevent infection.
- b) To cool burned area.
- c) To keep the burned area warm.
- d) Both a and c

4) What should be your first concern at the scene where a person has been seriously burned

- a) Checking the scene for safety.
- b) Checking the victims breathing and pulse.
- c) Calling your local emergency phone number.
- d) Cooling the burned area.

5) When caring for a victim who has a large burn on their forearm, you....

- a) Use large amounts of cool water to cool the burn.
- b) Use ice or ice water to cool the burn.
- c) Remove any cloth that has stuck to the burn and apply burn cream.
- d) All of the above.

6) When caring for someone who has suffered an electrical burn, you would not....

- a) Check breathing and pulse.
- b) Check for possible fractures.
- c) Cool the burned area.
- d) Treat for shock.

7) When can you move a victim?

- a) When you need to care for another victim.
- b) When the victim is in danger.

- c) When it would be easier to care for the victim.
- d) All of the above.

8) What is the first thing you should do for someone you suspect has an electrical burn?

- a) Check for breathing and a pulse
- b) Check to see if electricity is turned off
- c) Check for severe bleeding
- d) Check for shock

9) There are three basic steps you can take in an emergency:

- a) Call, Check, Care
- b) Check, Call, Care
- c) Recognize, Decide, Call
- d) Decide, Execute, Call

10) What must you use if you want to separate a victim from the electric source

- a) wet hand
- b) wet hand
- c) wooden pole
- d) iron pole

### **The history of underground trains in Ukraine**

The Kiev Metro is a metro system that is the mainstay of Kiev's public transport. It now has three lines with a total length of 67.6 kilometers and 52 stations.



The story of a rapid transit system in Kiev begins in 1916 when businessmen of the Russo-American trading corporation attempted to collect funds to sponsor construction of a metro in Kiev. After the downfall of the Tsarist government Hetman Skoropadsky was also much interested in building the system, but after the

downfall of the Hetmanate in the autumn of 1918 Ukraine plunged into chaos of Civil War and the project was shelved for good.

Following the Bolsheviks' victory in the Russian Civil War, Kiev became only a provincial city. Two decades later all this changed when in 1934, the capital of the Ukrainian SSR was moved from Kharkiv to Kiev. On July 9, 1936, the Presidium of the Kyiv City Council looked at a project by Papazov (Papazian), an Armenian graduate of the Moscow University of Transport Engineering, called, "The Project of the Kyiv Metro." The engineer Papazov (Papazian) received a bonus of 1000 rubles for this project from the City of Kyiv.

Following the terrible destruction suffered by the city in the war, a massive reconstruction was opened for the capital of the third largest city in the USSR. This time the Metro was in the plan and construction began in August 1949. Eleven years later the first 5.2 kilometers (3.2 mi) segment from the Vokzalna to Dnipro was opened. Earlier stations are ornately decorated and many have impressive vestibules, such as this at Vokzalnastation.

Those five stations formed the central part of what is today known as the Sviatoshynsko-Brovarska Line, which runs from the west to the east of the city. The line crossed the Dnieper river in 1965 across a newly constructed Metro Bridge and went east to the large residential areas being built on the left bank of the river, with subsequent extensions in 1968 and 1971. At the same time it extended to Kiev's westernmost residential areas of Sviatoshyn and Bilychi in three stages 1963, 1971 and 2003.

Construction of the second line began in the early 1970s and the first three stations were opened in 1976. What became known as the Kurenivsko-Chervonoarmiyska Line continued expanding. In two stages (in 1980 and 1982) it reached Obolon, then the largest residential district, in northern Kiev. At the same time construction continued to the southwest with new stations added in 1981-84.

Construction of the third, Syretsko-Pecherska Line began in 1981 for the first three station segment to open in 1989 in central Kiev. Following a northwest-southeast axis, in 1991 it continued up to the left bank of the Dnieper and by 1992

crossed the river and continued into the rapidly developing Poznyaky and Kharkivskiy residential districts which it reached in 1994. In mid late 1990 construction began on expansion to the older Syrets district in the northwest direction with stations opening in 1996, 2000 and 2004. In addition some of the intermediate stations were deliberately left unfinished and opened later: Pecherska (Opened in 1997) and Vyrlыtsia (in 2006).

On December 15, 2010 three new stations (Demiiivska, Holosiiivska, and Vasyilkivska) were opened in the direction of Teremki. On December 27, 2010 new station Vystavkovyi Tsentр was opened near the National Expocentre of Ukraine.

### Word list

- mainstay- головна підтримка, опора  
length- довжина  
rapid- швидкий  
plunge- занурюватись, стрімко просуватися  
shelve- відкладати  
decade- десятиліття  
graduate- випускник  
newly- заново, недавно  
ornately- барвисто  
residential- жилий, житловий  
subsequent- наступний, який є результатом  
extension -протяжність  
expand- розширювати  
reach- простягатися  
axis- вісь; центральне питання, стрижень (чого-небудь)  
expansion- ріст, розвиток  
intermediate - проміжний  
deliberately- навмисно, свідомо

## Interesting facts about Kyiv Subway

1. The deepest subway station in the world is located in Kiev. It is a subway station Arsenalna, with its depth of 105 Meters.

2. In the case of any war Kiev underground can serve as a shelter. All subway tunnels are equipped with special places for people. There are fountains with drinking water, toilets and stores with products that are updated regularly. At each station there are metal doors that are closed, and can withstand even a nuclear explosion.

3. Every evening the “internal” of the trains are washed by special staff, and outside of the trains are cleaned twice a month.

4. All the escalators of the world are laid at an angle of 30 degrees, the Kiev subway is no exception. Kiev escalators move at a speed slightly less than one meter per second.

5. The width of the Subway ruts are the same as the width of railway ruts. Subway cars are transported by rail from the factory.

6. The service life of the subway train – 31 years.

7. There is no representative of female among machinists in Kiev (and not only in Kiev) metro.

8. There are 49 Kiev subway stations (6 of them are terrestrial).

9. The oldest railway stations are Vokzalna, Universitet, Khreschatyk, Dnipro, Arsenalna.

10. Since 2000 the price of one token rose from 0,30 to 4 hryvnia

### Word list

shelter- укриття, бомбосховище

equip-обладнувати, оснащувати

withstand- витримати

explosion- вибух

internal- внутрішній

stunning- приголомшуючий, вражаючий

whopping- незвичайний, величезний

angle- кут

exception- виключення, виняток

rut- колія

### **The 10 most beautiful metro stations around the world**

In countries around the world, public transportation systems have been transformed into stunning spaces.

With grand chandeliers, architectural designs, and light projections, these metro stations will make your commute anything but boring.

We've put together a collection of the most awe-striking metro stations around the globe, from the Formosa Boulevard Station of Kaohsiung, Taiwan, to the chandelier-filled Komsomolskaya in Moscow, Russia.

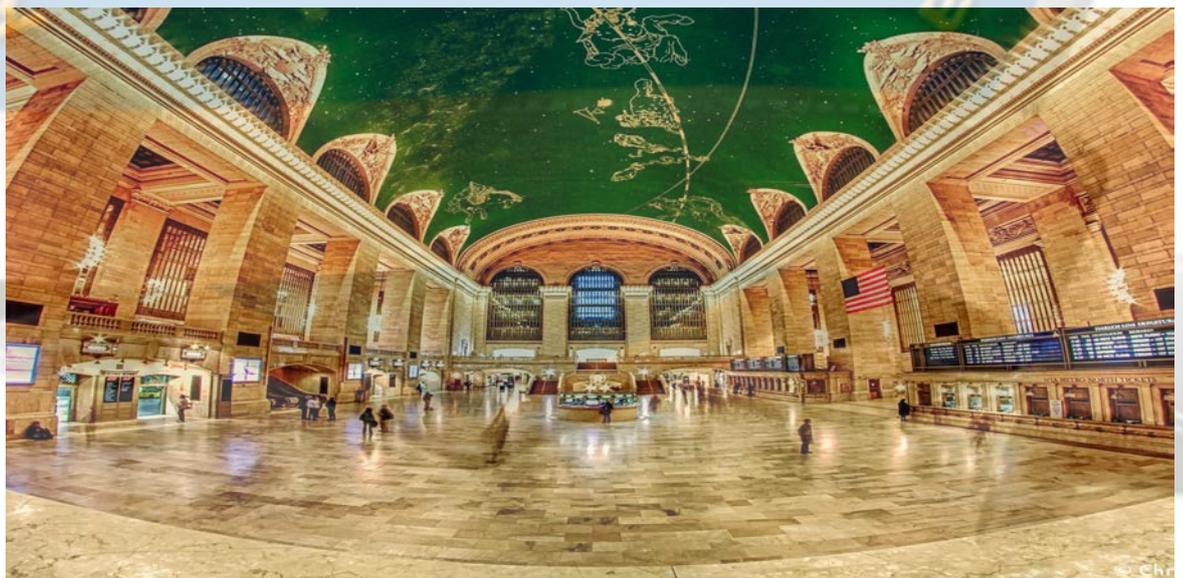
1) The Toledo station in Naples, Italy, also stands as a stunning wonderland thanks to the artwork of Robert Wilson, called "Light Panels," that illuminates the station corridor. With a depth of 164 feet, it's one of the deepest stations in Naples.



2) Inside the Formosa Boulevard Station of Kaohsiung, Taiwan, is a 4,500-panel glass artwork by Narcissus Quagliata that is said to be the largest glasswork in the world.

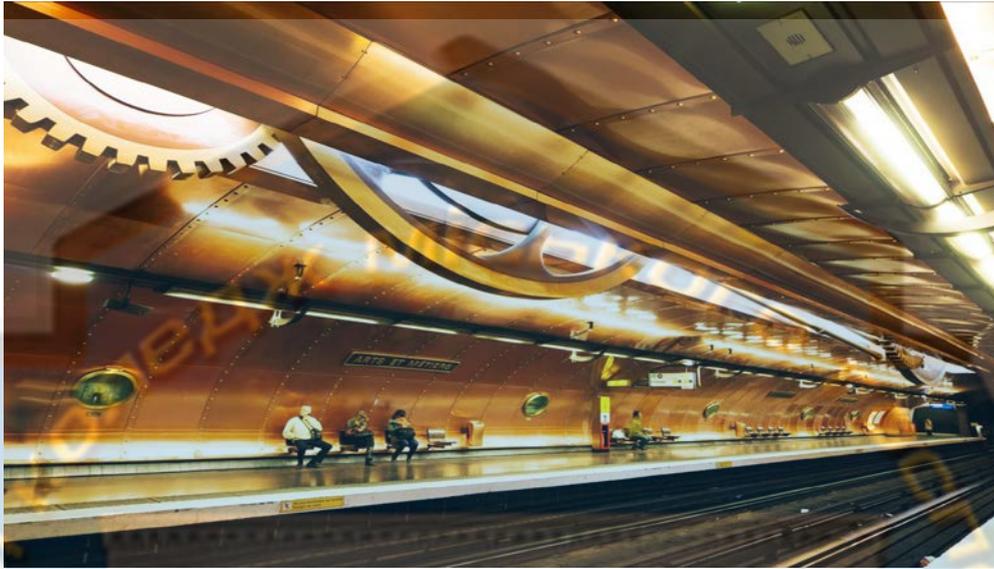


3) Look up at the stunning ceiling of New York City's Grand Central Terminal, which also holds the Guinness World Record for the largest railway station by number of platforms with a whopping total of 44 and a secret one that is said to be below the Waldorf Astoria.



4) Get lost in the imaginary world of Jules Verne at the Arts Et Métiers Station in Paris, France, which was designed by comic artist François Schuiten and

includes copper walls lined with submarine-style windows and giant gears that hang from the ceiling.



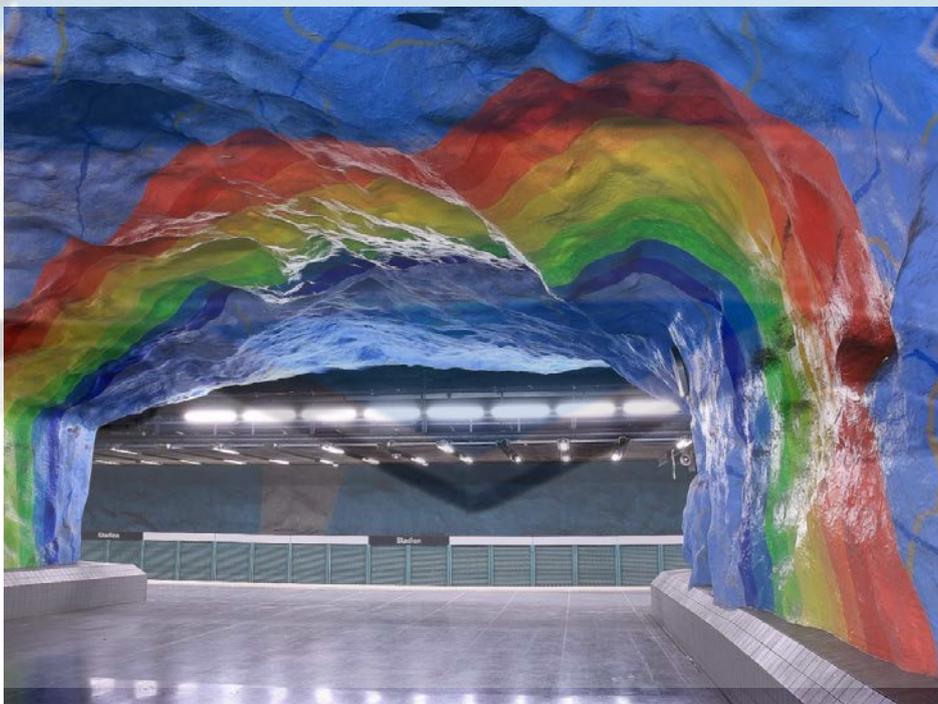
5)Dubai is known for its opulence, and its Khalid Bin Al Waleed Station is no exception. Massive chandeliers in the shapes of glowing jellyfish dangle from its ceilings to cast a blue glow over the station, which also holds images of traditional pearl divers.



6)The Atocha Train Station in Madrid, Spain, is the city's largest and includes steel and glass construction blended with tropical gardens throughout its concourse. While waiting for your train, view the station's display of sculptures.



7)Over 90 of the subway stations in Stockholm, Sweden, have been decorated with sculptures, mosaics, paintings, and installations by artists. One of them is the Stadion station, which was decorated by artists Enno Hallek and Ake Pallarp and includes a vibrant rainbow painting that lines the arches.



8) Stockholm is also home to the Kungsträdgården metro station, which houses the relics of the old Stockholm Makalös palace and hosts an impressive industrial-looking design.



9) The Mayakovskaya metro station in Moscow, Russia, is considered to be one of the most beautiful. The station is decorated with marble, stainless steel, and lamps hidden inside oval niches on the ceiling with small panels designed by artist Aleksandr Deyneka.



10) The Zoloti Vorota in Kiev, Ukraine, was created through a series of artists who filled the station with intricate mosaics along its columns and surfaces. It also hosts chandeliers with candle-shaped lighting to create an elegant space.



#### Word list

- stunning- приголомшуючий, вражаючий
- chandelier- люстра
- commute- поїздки на роботу
- wonderland- країна чудес
- illuminate –освітлювати
- Guinness World Record –світовий рекорд Гіннеса
- whopping- незвичайний, величезний
- copper- мідь
- gear- механізм
- opulence- багатство, розкіш
- exception –виключення
- shape- форма
- glowing- яскравий

jellyfish- медуза

dangle- вільно звисати

cast – кидок, кидати

glow- світло

pearl- перлина

steel- сталь

blend- суміш

throughout- усюди,скрізь

concourse- скупчення, вплив (народу)

view – вид, панорама

vibrant- живий, повний життя, сил, енергії, дзвінкий

arch- арка

relic-реліквія, залишок

host- хазяїн, виступати в ролі хазяїна

marble- мармур

stainless steel – нержавіюча сталі

hide-ховатись

niche- ніша

create- створювати, займатись

intricate- заплутаний, складний

## The Funicular

A funicular, also known as an inclined plane or cliff railway, is a cable railway in which a cable attached to a pair of tram-like vehicles on rails moves them up and down a steep slope; the ascending and descending vehicles counterbalance each other.

The basic idea of funicular operation is that two cars are always attached to each other by a cable,



which runs through a pulley at the top of the slope. Counterbalancing of the two cars, with one going up and one going down, minimizes the energy needed to lift the car going up. Winching is normally done by an electric drive that turns the pulley. Sheave wheels guide the cable to and from the drive mechanism and the slope cars.

The oldest funicular is the Reisszug, a private line providing goods access to Hohensalzburg Castle at Salzburg in Austria. It was first documented in 1515 by Cardinal Matthäus Lang, who became Archbishop of Salzburg.

The Kiev funicular serves the city of Kiev, connecting the historic Uppertown, and the lower commercial neighborhood of Podil through the steep Volodymyrska Hill overseeing the Dnieper River. The line consists of only two stations and is operated by the Kiev city community enterprise Kyivpastrans.

The funicular was constructed during 1902-1905, and was first opened to the public on 7 May 1905. The construction cost, about 230,000 Russian rubles, was covered by a Belgian owner of the Kiev trams. The funicular was the project of Arthur Abrahamson, who received professional training on railroad engineering in Zürich, Switzerland and Saint Petersburg, Russia. The station vestibules were initially developed by N. Piatnitskiy, and the railway structure was designed by N. Barishnikov.

Due to its proximity to the St. Michael's Cathedral, it was once named the Mykhailivskyi Mekhanichnyi Pidyom. After the cathedral was destroyed by the Soviet authorities in 1935-1936, the name of the funicular was changed.

In 1984 the lower station changed its outlook. It was redeveloped by architects Janos Vig, Valentine Yezhov, and others.

The funicular uses the two rail and passing-loop system. The two cars are designated with the Cyrillic letters Λ and Π which stand for left and right. The funicular was renovated three times: in 1928, 1958, and 1984.



Track gauge: 1,200 mm. Total track length: 238 meters. The total gradient of the slope on which the funicular runs on is 36%. The cable cars are powered by an electric motor which is located inside the upper station.

The travel time between the stations is approximately 3 minutes. The route is from the Mykhailivska Square in the Uptown to the Poshtova Square in the Podil.

### Word list

- inclined plane – похила площина
- cliff- крутий обрив, прямовисна скеля
- cable- канат
- steep- круча, крутий, надмірно високий
- slope- схил
- ascending- висхідний
- descending- низхідний
- counterbalance- урівноважувати, противага
- pulley- шків; блок; коловорот; барабан
- winch- коловорот, лебідка, колінчата рукоятка
- sheave- блок, ролик
- guide- провідний, провідник
- access- підхід, прохід
- neighborhood- сусідство, квартал, околиця
- community- громада, община, суспільство
- enterprise- підприємство
- due- податки, мито, належний, відповідний
- proximity- близькість, сусідство
- cathedral- собор
- Soviet authorities-Радянська влада
- Redevelop- реконструювати

loop- вантажний бугель, замкнута система

designated - зазначений, призначений

Cyrillic- Кирилиця

renovate- відновлювати

gauge- масштаб, розмір

track gauge- ширина колії

total track length- загальна довжина траси

gradient- уклон, похил

approximately- приблизно

### Complete the sentences

1) A funicular, \_\_\_\_\_ as an inclined plane or cliff railway, is a cable railway in which a cable attached to a pair of tram-like vehicles on rails moves them up and down a \_\_\_\_\_; the ascending and \_\_\_\_\_ vehicles counterbalance each other.

2) The basic idea of funicular operation is that \_\_\_\_\_ are always attached to each other by \_\_\_\_\_.

3) Counterbalancing of \_\_\_\_\_, with one going up and one going down, minimizes the energy needed to lift the car \_\_\_\_\_.

4) The line consists of only two \_\_\_\_\_ and is operated by the Kiev city community enterprise \_\_\_\_\_.

5) The cable cars are powered by an \_\_\_\_\_ which is located inside the upper \_\_\_\_\_.

### History of London Underground

For many people who live in London, the Underground system is something which is vital to their everyday lives.

#### The Early Days of the Underground

London's rapid population growth as part of the industrial revolution meant that the roads and above ground railway stations could become very congested at

times. To reduce this congestion, an underground railway system was proposed in the mid 1830's. Due to difficulties in raising the required funds, construction did not start until 1860, but then progressed quickly until the project opened to the public on 10 January 1863. Within the first year, the line carried over 9.5 million passengers.

### The Underground in the Twentieth Century

Once it had been confirmed that it was possible to run an electrified train underground, the owners of other existing lines began to consider the option of electrification. Smoke-filled carriages and stations were unpopular with passengers, but they had previously been seen as the only feasible option. By 1905, the District and Circle lines had been completely electrified. The rest of the network continued to expand, albeit under the private ownership of various different companies.

In 1908, the name "Underground" was introduced and began to be used in stations to promote the system. The iconic roundel symbol was also introduced in the same year.

The onset of the Second World War saw many underground stations being used as air raid shelters, and as storage facilities for treasures from the British Museum. On 3rd March 1943, 173 people were killed at Bethnal Green tube station as people rushed to enter the station to shelter. A woman and child fell near the bottom of the stairs, causing others to fall around them. As people continued to enter the station to escape the impending air raid, those already inside were crushed. This was the largest single loss of life in the history of the London Underground.

The Moorgate tube crash on 28th February 1975 was another significant accident. A busy train failed to stop at the final station on the line, instead continuing through the tunnel and crashing into a wall at the end of the tunnel, resulting in the deaths of 44 people. Whilst the cause of the accident could not be confirmed, it did prompt the introduction of a new safety system, which would

automatically stop the train at a terminus station if the driver failed to manually brake correctly.



## UNDERGROUND

### Word list

vital- життєво важливий  
rapid- швидкий  
congested- перевантажений  
reduce- зменшувати, скорочувати  
congestion- затор(руху), скупчення  
raising- виведення, збільшення  
required- необхідний  
funds- кошти  
consider- розглядати  
option- заміна  
previously- зазделегіть  
feasible- підходящий, здійснений  
network- мережа  
expand- розширювати, розвивати  
albeit –проте, хоча  
promote- просувати, підвищувати  
iconic- традиційний  
onset- початок  
treasure-скарби  
causing –спричинення  
escape- втеча, порятунок  
impending- загрозовий

raid- тиск, натиск

terminus- кінцева точка

manually- вручну

brake- гальмувати

### **The rules of life safety at work**

Before 1974 approximately 8 million employees had no legal safety protection at work. The Health and Safety at Work Act 1974 provides the legal framework to promote, stimulate and encourage high standards of health and safety in places of work. It protects employees and the public from work activities.

Everyone has a duty to comply with the Act, including employers, employees, trainees, self-employed, manufacturers, suppliers, designers, importers of work equipment.

#### Employers' responsibilities

The Act places a general duty to 'ensure so far as is reasonably practicable the health, safety and welfare at work of all their employees'.

#### Employers must comply with the Act. They must:

- provide and maintain safety equipment and safe systems of work
- ensure materials used are properly stored, handled, used and transported
- provide information, training, instruction and supervision - ensure staff are aware of instructions provided by manufacturers and suppliers of equipment
- provide a safe place of employment
- provide a safe working environment
- provide a written safety policy/risk assessment
- look after the health and safety of others, for example the public
- talk to safety representatives

An employer is forbidden to charge his or her employees for any measures which he or she is required to provide in the interests of health and safety (for example, personal protective equipment).

#### Employees' responsibilities

Employees have specific responsibilities too - they must:

- take care of their own health and safety and that of other persons (employees may be liable)
- co-operate with their employers
- not interfere with anything provided in the interest of health and safety

#### Enforcement of Health and Safety legislation

For your type of business the Local Authority Environmental Health Officer will be your enforcement officer. For manufacturing or large construction or industrial sites the Health and Safety Executive carries out inspections.

The powers of an inspector include:

- rights of entry at reasonable times (without appointments)
- right to investigate and examine
- right to dismantle equipment and take substances or equipment
- right to see documents and take copies
- right to assistance (from colleagues or Police)
- right to ask questions under caution
- right to seize articles or substances in cases of imminent danger

#### **Word list**

approximately- приблизно, наближено

employees- персонал

framework- основу

promote- заохочення

encourage- заохочувати, підтримувати

duty- обов'язок

comply- виконувати

employer – роботодавець

trainee- стажист

manufacturer- підприємець

supplier- постачальник  
ensure- забезпечувати, гарантувати  
welfare- благополуччя  
properly- належний чином  
supervision- інспектування, контроль  
forbidden- заборонений

## Grammar

### 1. Fill in the present tense.

1. My parents often  westerns. (watch) 2. They  hungry. (be)

3. Mum  all the dirty clothes. (wash)

4. Peter  got a brother. (have)

5. Dad  a new plasma TV. (buy)

6. The boys  football. (play)

7. In summer it  hot. (be)

8. I  good at school. (be)

9. On Friday we always  our piano lesson. (have)

10. Mary  her homework. (do)

11. Richard  TV. (watch)

12. I  big cities. (like)

13. He  in the library. (study)

14. She always  to work at 7. (go)

15. Bill and Tom sometimes  to London. (drive)

**2. Put the sentences into negation. Use short forms (doesn't, don't, isn't,...)**

Example: I am hungry. - I am not hungry.

1. They wash the car. They  the car.

2. I get up early. I  early.

3. They walk to school. They  to school.

4. Jim eats an orange. Jim  an orange.

5. My sister listens to her new CD. My sister  to her new CD.

6. Ann cleans her shoes. Ann  her shoes.

7. Henry climbs the tree. Henry  the tree.

8. They are at the cinema. They  at the cinema.

9. We like pizza. We  pizza.

10. Gary and Peter go to the party. Gary and Peter  to the party.

11. My parents work in a restaurant. My parents  in a restaurant.

12. We like our uncle. We  our uncle.

13. She sings her favourite song. She  her favourite song.

14. Bill reads a book. Bill  a book.

15. Mary goes to the zoo. Mary  to the zoo.

### 3. Form the questions.

Example: I am hungry. - Are you hungry?

1. Peter goes to the party.

\_\_\_\_\_

2. His schoolbag is brown.

?

3. Mary can ski.

?

4. I meet my friends.

?

5. The teacher hands out the books.

?

6. Pat is a clever boy.

?

7. The monkey takes the banana.

?

8. Tony is hungry.

?

9. Tim goes to school.

?

10. They are at Sarah's party.

?

11. You like apples.

?

12. Winter begins in December.

?

13. They are at home.

?

14. Tom can play football.

?

15. His mother speaks Spanish.

?

**4. Tell the story – fill in the past simple tense**

On Friday, the children  (talk) about a day out together in the country.

The next morning, they  (go) to the country with their two dogs

and  (play) together. Ben and Dave  (have) some kites. Some

time later the dogs  (be) not there. So they  (call) them and  (look) for them in the forest. After half an hour the children  (find) them and  (take) them back. Charlie  (be) very happy to see them again. At lunch time Nick  (go) to the bikes and  (fetch) the basket with some meat sandwiches. Then they  (play) football. Nick and Dave  (win). In the evening they  (ride) home.

### 5. Fill in the correct simple past form.

arrange • bring • choose • decide • find • get • go • say • start

Last month Jenny, Nick and Ben  to do a project together. They  Cornwall. First Jenny  to a travel agency and  some brochures. Nick and Ben  some interesting books in the library. Then they  work. A week later they  all their material to school and  it on a poster. 'Your presentation is interesting',  Miss Hunt.

### 6. Fill in the negation.

1. They were at the party yesterday. They  at the party yesterday.

2. Paula wrote back. Paula  back.

3. We arrived late. We  late.

4. He played football. He  football.

5. I forgot her birthday. I  her birthday.

6. He washed the car. He  the car.

7. She hurt her leg. She  her leg.

8. Sam was tired. Sam  tired.

9. I found the keys. I  the keys.

10. Martin visited his grandparents. Martin  his grandparents.

11. She tidied her room. She  her room.

12. He jumped high. He  high.

13. Steve left the hotel three days ago. Steve  the hotel.

14. She was in Italy last summer. She  in Italy last summer.

15. Mr Brown read my essay. Mr Brown  my essay.

### 7. Form the questions.

1. He brought his friend.  ?

2. She was sick. ?

3. He ate his toast. ?

4. They lived in Boston. ?

5. We were on the beach. ?

6. Peter stayed out late. ?

7. Susan bought a new car. ?

8. The ring was expensive. ?

9. We got up early. ?

10. He ate spaghetti. ?

11. I met Helen. ?

12. He slept well last night. ?

13. They drove to Denver. ?

14. They spoke to Alice. ?

15. She was at home. ?

**8. Fill in the will - future of the words below.**

have – go – meet – visit – walk – have – buy – not be – have

Tomorrow I  my friend George. We  to the movies and then we  our dinner at the new fast – food place. In the afternoon we  George's uncle and play table tennis in his garden. Then we  around in the shopping mall where we  a look at the shops. Maybe I  new jeans. We  back before 6 o'clock. I think we  a great day.

**When I'm older, I will .....**

buy - have - watch - buy - go - stay - go

When I'm older, I  out late.

When I'm older, I  TV as long as I like.

When I'm older, I  to parties.

When I'm older, I  two children.

When I'm older, I  a car.

When I'm older, I  to the cinema.

When I'm older, I  a lot of sweets.

## When I'm older, I will not / won't...

do - write - go - wash - go - live - make

When I'm older, I  any homework.

When I'm older, I  my bed in the morning.

When I'm older, I  for a walk with my parents.

When I'm older, I  my father's car.

When I'm older, I  to school.

When I'm older, I  so much.

When I'm older, I  in my parent's house.

### 9. Present Continuous tense. Complete the sentences

1. Andy  his uncle. (call)
2. Bill and Carol  a magazine. (read)
3. The boys  on the door. (knock)
4. Where is mum? She  the flowers in the garden. (water)
5. They  to their teacher. (not listen)

6. I  my homework now. (do)

7.  she  dinner? No, she . (have / read)

8. We  now. (not play)

9. He  to his girlfriend at the moment. (talk)

10. Can we talk now? Yes, I  anything important. (not do)

11. Are you in the park? No, it . (rain)

12. What  the kids ? They  their bikes. (do/ride)

13. Steven  a shower. (have)

14. Please be quieter. The babies . (sleep)

15.  you  the party? (enjoy)

**10. Present Continuous tense. Complete the sentences**

1. Look! Pauline  the flowers. (water)

2. Listen! The girls  a song. (sing)

3. She usually  home by bus. (come)

4. Jack  to his grandmother every day. (go)

5. Look! Sally and Joe  tennis. (play)

6. Nelly  a cup of tea every morning. (drink)

7. We can't play tennis. It  now. (rain)

8. Bill  his homework at the moment. (do)

9. Jane always  her homework in her room. (do)

10. The boys sometimes  to the park. (run)

11. My cat never  in my room. (sleep)

12. Listen! Phil  an English song. (sing)

13. No, I  to music on my mobile phone, I  a bath. (not listen / have)

14. Michael can't play football. He  guitar at the moment. (play)

15. We never  letters to America. (write)

**11. Put the verbs in brackets into the present simple or the present continuous.**

1. Would you like some beer? No, thank you I  alcohol. (not drink)
2. Why  Spanish? Because I want to go to Madrid next summer. (you learn)
3. Where  from? (you come)
4. What  for a living? (your father do)
5. My sister  to be a nurse. (train)
6. That's an interesting article. It  you a lot about British teenagers. (tell)
7. What  ? A thriller. (you read)
8. Where  a ticket, please? (I get)
9. I don't like Mr Smith. He  too much. (talk)
10. Susan, hurry up! What  in the bathroom all the time? (you do)
11. How  these days? (you get on)

12. What language  in Brazil? (they speak)

13. I think it  colder. We'd better take coats. (get)

14. Andy  like his brother, doesn't he? (look)

15. What's that noise? It  like a helicopter. (sound)

**12. Put the verbs in brackets into the past continuous**

1. The girls  (play) cards.

2. Greg  (look) for his wallet.

3. Mr Miller  (not wash) his car.

4. Susan  (do) her homework.

5. They  (not play) football yesterday afternoon.

6. I  (wait) for her in the park.

7. Carol and I  (have) dinner when he arrived.

8. We  (play) the guitar when she entered.

9. Tom  (not swim) in the pool.

10. The boys  (cycle) home from school.

11. She  (work) in her office.

12. I  (not learn) the new words.

13. Ann  (lie) on the beach.

14. We  (sit) on the bench for a long time.

15. He  (phone) his aunt.

---

**13. Put the verbs in brackets into the past continuous**

1. We  (write) the essay together.

2. Frank  (prepare) breakfast.

3. Mrs Summers  (not listen) to him.

4. Daniel  (do) the shopping.

5. They  (not read) the book.

6. I  (have) a shower.

7. He  (not watch) TV.

8. We  (swim) in the sea.

9. Tom and I  (vist) the castle.

10. The sun  (shine).

11. She  (clean) the windows.

12. I  (show) them most of the sights.

13. Ann  (not take) a lot of photos.

14. We  (play) voleyball on the beach.

15. They  (talk) to their neighbours.

**14. Put the verbs in brackets into the past simple or past continuous**

1. I  (look) out of the window and  (see) John.

2. I  (help) to peel the potatoes when Mary  (come) in.

3. The sun  (rise) when we  (reach) the hill.

4. He  (laugh) and  (clap) his hand.

5. While they  (sing), he  (play) the piano.

6. A heavy wind  (blow) when the helicopter  (land).

7. We  (go) to the church when the bell  (start) to ring.

8. While the police  (drive) to the house, the burglars  (put) the paintings into their bags.

9. Father  (smoke) his pipe while mother  (read) a book.

10. The baby  (start) to cry when she  (do) the washing up.

11. While he  (walk) through the park, he  (meet) Phil.

12. When they  (walk) through the wood, they  (see) the stolen car.

13. Although the pianist  (play) wonderfully, a guest  (fall) asleep.

14. She  (brush) her hair while he  (put) on his clothes.

15. When they  (walk) through the shopping centre,

he  (promise) to buy her a ring.

---

**15. Write down the sentences. Use present perfect**

Example: Snoopy / climb / onto his house. Snoopy has climbed onto his house.

1. Brian / play / football

.

2. Susan / read / her new book

.

3. I / find / some money in the street

.

4. Mr and Mrs Baker / have / an accident

.

5. Tom Davis / win / the tennis match

.

6. Alison Brown / lose / her keys

.

7. Mr. Martin / make / breakfast for the boys

8. The girls / bring / some wood for the fire

9. The Snows / complete / cheap car insurance

10. Mrs Black / wash / the dishes

**16. Complete the following sentences with the correct present perfect forms.**

1. Mrs Snow  a fantastic cake. (make)

2. Debbie  a new bike. (buy)

3. I  my little dog yet. (not feed)

4. Sally and Jenny  a new CD player. (get)

5. Chris  wood for a raft. (not find)

6. The pupils  their homework. (not do)

7. Nick can't play football today. He  an accident with his bike. (have)

8. Liz  her homework yet. (not finish)

9.  Julia  to school today? (be)

10. What  you  for lunch today, Mum? (make)

11. Bill  his cage, but he  the dishes yet. (tidy up, not wash)

12. Sandra  a lot of things for her birthday party, but she  the cakes yet. (buy, not make)

**17. Put the verbs in brackets into the past simple or the present perfect.**

1. I  a great film yesterday. (see)

2.  a cheap laptop? (you ever buy)

3. Sue  the flu last winter. (have)

4. A few days ago we  to his uncle. (drive)

5. They  bingo Wednesday afternoon. (play)

6. He  the bus to get there. (already take)

7. Last week my rabbit  away. (run)

8. We  a lot last Sunday. (do)

9.  to India? (she ever be)

10. I  him last Monday. (meet)

11. She  yet. (not wake up)

12. I  her since last Thursday. (not meet)

13. Bob  well last night. (sleep)

14. I  a letter from her two days ago. (get)

15. They  in Germany. (already arrive)

**18. Fill in past simple, past continuous or past perfect simple.**

1. When they  (sleep), thieves  (break) in and  (steal) their jewelry.

2. After he  (repair) his bike, he  (drive) to his grandparents.

3. Before she  (have) dinner, she  (work) in the garden.

4. I  (see) him yesterday in front of the cinema.

5. When they  (listen) to music, they  (hear) a loud noise.

6. He  (not visit) me before he  (fly) to Greece.

7. He  (hear) a loud cry from outside and  (rush) out.

8. While she  (learn) for her test, her brother  (play) football with his friends.

9. We  (not play) chess last Sunday.

10. He  (go) shopping after he  (phone) me.

11. When we  (meet) Jane at the party, she  (wear) a red dress.

12. He  (not drive) fast when the accident  (happen).

13. The boys  (break) a window when they  (play) football in the garden.

14. Mary  (not work) yesterday. She  (be) ill.

15. After she  (help) me with the housework, she  (go) to meet her friends.

**19. Fill in past simple or past perfect simple.**

1. After they  (see) the Tower, they  (go) to Westminster Abbey.

2. He  (ask) me which animals I  (hunt) in Africa.

3. After Columbus  (discover) America, he  (return) to Spain.

4. Before they  (move) to Liverpool, they  (sell) everything.

5. After he  (work) very hard, he  (fall) ill.

6. She  (open) the box after she  (find) the key.

7. They  (go) to a restaurant after they  (sail).

8. Before they  (start) the party, they  (invite) some friends.

9. After she  (wash) the curtains, she  (clean) the windows.

10. They  (go) for a sightseeing tour after the bus  (arrive).

11. Before he  (mow) the lawn, he  (pick) some roses.

12. After he  (finish) school, he  (work) for a magazine.

13. They  (drink) a cup of tea after they  (finish) lunch.

14. He  (ask) me for her telephone number before he  (phone) her.

15. My sister  (eat) all the chocolate before my parents  (come) home.

**20. Fill in the present perfect continuous.**

1. It  (rain) for hours.

2. Mike  (collect) stamps since 1995.

3. Bob  (play) tennis since he was seven.

4. I  (wait) for the bus for 15 minutes.

5. How long  your brother  (play) guitar?

6. How long  he  (play) golf?

7. I  (work) for this company for seventeen years.

8. How long  it  (rain)?

9. Mary  (study) German for two years.

10. My grandparents  (live) in that house since 1962.

11. My mother  (cook) for 3 hours.

12. My sister  (drive) since 1972.

13. Peter  (live) in India since last month.

14. How long  you  (work) in the garden?

15. They  (lie) in the sun for hours.

### 21. Fill in the present perfect continuous

1. Why is he so tired? He  (play) football for two hours.

2. How long  (you work) in the garden?

3. Carol  (learn) Spanish for four years.

4. Frank and Bill  (travel) around Europe for about a month.

5. Samuel  (wear) that jeans since Tuesday.

6. How long  (you study) English?

7. We  (wait) here for three hours.

8. She  (watch) too much television lately.

9. Susan  (speak) on the phone for an hour.

10. How long  (he wait) for us?

11. Peter  (read) the books for weeks.

12. He  (watch) too many DVDs.

13. He is very tired. He  (work) hard all day.

14. I  (read) for 3 hours.

**22. Write passive sentences (use the indications between brackets.)**

1. the picture / draw (Simple Present)

2. the door / close (Simple Past)

3. the house / steal (Present Continuous)

4. the bike / repair (Past Continuous)

5. the room/ clean (Present Perfect)

6. the homework / do (Past perfect)

7. the window / break (Simple future)

8. the essay / write (Should + Verb)

**23. Rewrite the following sentences as suggested:**

1. The boy writes poems.

2. The girl drove the blue car.

3. They have collected enough money.

4. They will open a new restaurant.

5. The little boy can draw pictures.

6. The guard watched the prisoner.

7. They will not play soccer.

8. They believe that he writes good poems.

**24. Rewrite these sentences starting with the words in bold:**

1. Her friend gave her **a book**.

2. They offered him **a job**.

3. The man showed **us** the house.

4. My friend gave **me** a pen.

**25. Write passive sentences in present simple.**

1. the documents / print

2. the window / open

3. the shoes / buy

4. the car / wash

5. the litter / throw away

6. the letter / send

7. the book / read / not

8. the songs / sing / not

9. the food / eat / not

10. the shop / close / not

**26. Write passive sentences in past simple.**

1. the test / write

2. the table / set

3. the cat / feed

4. the lights / switch on

5. the house / build

6. dinner / serve

7. this computer / sell / not

8. the car / stop / not

9. the tables / clean / not

10. the children / pick up / not

**27. Complete the sentences in reported speech. Note the change of pronouns in some sentences.**

1. "Stop talking, Joe," the teacher said.

→ The teacher told Joe

2. "Be patient," she said to him.

→ She told him

3. "Go to your room," her father said to her.

→ Her father told her

4. "Hurry up," she said to us.

→ She told us

5. "Give me the key," he told her.

→ He asked her

6. "Play it again, Sam," she said.

→ She asked Sam

7. "Sit down, Caron" he said.

→ He asked Caron

8. "Fill in the form, Sir," the receptionist said.

→ The receptionist asked the guest

9. "Take off your shoes," she told us.

→ She told us

10. "Mind your own business," she told him.

→ She told him

**28. Complete the sentences in reported speech. Note the change of pronouns in some sentences.**

1. "Don't touch it," she said to him.

→ She told him

2. "Don't do that again," he said to me.

→ He told me

3. "Don't talk to me like that," he said.

→ He told her

4. "Don't repair the computer yourself," she warned him.

→ She warned him

5. "Don't let him in," she said.

→ She told me

6. "Don't go out without me," he begged her.

→ He begged her

7. "Don't forget your bag," she told me.

→ She told me

8. "Don't eat in the lab," the chemistry teacher said.

→ The chemistry teacher told his students

9. "Don't give yourself up," he advised her.

→ He advised her

10. "Don't hurt yourselves, boys," she said.

→ She told the boys

**29. Complete the sentences in reported speech. Note the change of pronouns in some sentences.**

1. She said, "Go upstairs."

→ She told me

2. "Close the door behind you," he told me.

→ He told me

3. "Don't be late," he advised us.

→ He advised us

4. "Stop staring at me," she said.

→ She told him

5. "Don't be angry with me," he said.

→ He asked her

6. "Leave me alone," she said.

→ She told me

7. "Don't drink and drive," she warned us.

→ She warned us

8. "John, stop smoking," she said.

→ She told John

9. "Don't worry about us," they said.

→ They told her

10. "Meet me at the cinema." he said.

→ He asked me

30. Complete the sentences in reported speech.

John said, "I love this town."

John said

"Do you like soccer ?" He asked me.

He asked me

"I can't drive a lorry," he said.

He said

"Be nice to your brother," he said.

He asked me

"Don't be nasty," he said.

He urged me

"Don't waste your money" she said.

She told the boys

"What have you decided to do?" she asked him.

She asked him

"I always wake up early," he said.

He said

"You should revise your lessons," he said.

He advised the students

"Where have you been?" he asked me.

He wanted to know

### 31. Conditionals (Type 1)

1. If I  (*to study*), I  (*to pass*) the exams.
2. If the sun  (*to shine*), we  (*to walk*) into town.
3. If he  (*to have*) a temperature, he  (*to see*) the doctor.
4. If my friends  (*to come*), I  (*to be*) very happy.
5. If she  (*to earn*) a lot of money, she  (*to fly*) to New York.
6. If we  (*to travel*) to London, we  (*to visit*) the museums.
7. If you  (*to wear*) sandals in the mountains, you  (*to slip*) on the rocks.
8. If Rita  (*to forget*) her homework, the teacher  (*to give*) her a low mark.
9. If they  (*to go*) to the disco, they  (*to listen*) to loud music.

10. If you  (*to wait*) a minute, I  (*to ask*) my parents.
1. If it  (*to rain*), the children  (*not/to go*) for a walk.
2. If she  (*not/to read*) the novel, she  (*not/to pass*) the literature test.
3. If I  (*not/to argue*) with my father, he  (*to lend*) me his motorbike.
4. If we  (*to take*) the bus, we  (*not/to arrive*) in time.
5. If Dick  (*not/to buy*) the book, his friends  (*to be*) angry with him.
6. If Tom  (*not/to tidy up*) his room, Victoria  (*not/to help*) him with the muffins.
7. If the boys  (*not/to play*) football, the girls  (*not/to come*) to the football pitch.
8. If you  (*to eat*) too much junk food, you  (*not/to lose*) weight.
9. If I  (*not/to make*) breakfast tomorrow morning, my girlfriend  (*not/to love*) me anymore.
10. If they  (*not/to hurry*), they  (*not/to catch*) the train.

### 32. Conditionals (Type 2)

1. If I  (*to come*) home earlier, I  (*to prepare*) dinner.
2. If we  (*to live*) in Rome, Francesco  (*to visit*) us.
3. If Tim and Tom  (*to be*) older, they  (*to play*) in our hockey team.
4. If he  (*to be*) my friend, I  (*to invite*) him to my birthday party.

5. If Susan  (*to study*) harder, she  (*to be*) better at school.
6. If they  (*to have*) enough money, they  (*to buy*) a new car.
7. If you  (*to do*) a paper round, you  (*to earn*) a little extra money.
8. If Michael  (*to get*) more pocket money, he  (*to ask*) Doris out for dinner.
9. If we  (*to win*) the lottery, we  (*to fly*) to San Francisco.
10. If I  (*to meet*) Brad Pitt, I  (*to ask*) for his autograph.
1. If Oliver  (*to find*) money, he  (*not/to keep*) it.
2. If they  (*not/to wear*) pullovers in the mountains, it  (*to be*) too cold during the night.
3. If Tony  (*to know*) her phone number, he  (*not/to give*) it to Frank.
4. If we  (*not/to visit*) this museum, we  (*not/to write*) a good report.
5. If it  (*not/to be*) so late, we  (*to play*) a game of chess.
6. If Jeff  (*not/to like*) Jessica, he  (*not/to buy*) her an ice-cream.
7. If I  (*to be*) you, I  (*not/to go*) to Eric's party.
8. If you  (*to drop*) this bottle, it  (*not/to break*).

9. If she  (*not/to bully*) her classmates, she  (*to have*) more friends.

10. If he  (*not/to print*) the document, I  (*not/to correct*) it.

### 33. Conditionals (Type 3)

1. If the weather  (*to be*) nice, they  (*to play*) football.

2. If we  (*to go*) to a good restaurant, we  (*to have*) a better dinner.

3. If John  (*to learn*) more words, he  (*to write*) a good report.

4. If the boys  (*to take*) the bus to school, they  (*to arrive*) on time.

5. If the teacher  (*to explain*) the homework, I  (*to do*) it.

6. If they  (*to wait*) for another 10 minutes, they  (*to see*) the pop star.

7. If the police  (*to come*) earlier, they  (*to arrest*) the burglar.

8. If you  (*to buy*) fresh green vegetable, your salad  (*to taste*) better.

9. If Alex  (*to ask*) me, I  (*to email*) the documents.

10. If he  (*to speak*) more slowly, Peggy  (*to understand*) him.

1. If you  (*to check*) the car, it  (*not/to break*)down in the middle of the desert.
2. If it  (*not/to rain*), the children  (*to play*)outside.
3. If my parents  (*not/to be*) so tired, they  (*to watch*) the film on TV.
4. If she  (*to buy*) a new hard disk, she  (*not/to lose*) all data.
5. If we  (*to use*) the town map, we  (*not/to get*) lost.
6. If Tom  (*to eat*) more salad, he  (*not/to catch*) a cold.
7. If the police  (*not/to stop*) me, I  (*to reach*)you in time.
8. If his older brother  (*not/to drive*) so fast, he  (*not/to crash*) into the other car.
9. If Fred  (*not/to cheat*) at the test, his teacher  (*not/to phone*) his father.
10. If I  (*not/to switch off*) the radio, I  (*to know*)about the second goal.

## VOCABULARY

### A

access- підхід, прохід

accident- аварія, нещасний випадок

administer- робити, надавати; проводити в життя

aggravate- пошкоджувати, погіршувати, підсилювати, загострювати

alack- на жаль

alarm clock – будильник

albeit –проте, хоча

allow – дозволяти

although – хоч, незважаючи на те

amenable- схильний

amount- кількість

angle- кут

annually- щорічно, за рік

antiquated form of public transport- застарілий засіб громадського транспорту

apart from - не беручи до уваги, не говорячи про

appear- з'являтися, показуватися

appliance – електричний пристрій

apply- використовувати

approximately- приблизно

ascending- висхідний

Auckland- Окленд (місто і провінціальний округ Нової Зеландії)

available-доступний, придатний, корисний

axis- вісь; центральне питання, стрижень (чого-небудь)

### B

basis – основа, підстава

battery - акумуляторна батарея

belch- викидати

beneath – унизу, нижче

bent – вигнутий, кривий

beyond – поза, за межами

beyond- за межами, далеко

bipolar cable- біполярний кабель

bit- шматок, трохи, частина

blanket- ковдра

blister- водяна булька, нарив

blood flow- потік крові

Boarding (entry) doors-вхідні двері

both- обоє, обидві, той, інший

bother –занепокоєння, турбота, хвилювати, турбуватися

brain- головний мозок

brake- гальмувати

breathing- дихання, подих

budget- бюджет, гаманець

bulb- електрична лампа

Bus Number- інвентарний номер тролейбуса

bystander- свідок, спостерігач

## С

cab – екіпаж, кабіна

cable- канат

Cardiopulmonary- серцево-легеневий

carriage – екіпаж, карета, пасажирський вагон

carry- нести

case- випадок, обставина

cathedral- собор

causing - спричинення, заподіяння, завдання

causing –спричинення

cell 1) камера; відсік, секція 2) , клітина; комірка

chain ланцюг, анцюжок

charcoal- вугілля (з дерева)

charge- плата, призначати, пропонувати, заряд

circuit – схема, коло, контур, (електр. ) мережа

cliff- крутий обрив, прямовисна скеля

coach - міжміський автобус

coal- вугілля

coil of wire – котушка (секція обмотки) з дроту

collector - струмоприймач

common – громадський, загальний, загальновідомий, поширений

community- громада, община, суспільство

commute - (щоденна) поїздка на роботу і назад, їздити щодня

complicated – складний, важкий

comprehensive- широкий, комплексний, всебічний

compress – стискати, здавлювати, давити

concern- відношення, річ, стосуватись, справа, значення

condition – стан, положення

conduct- проводити(струм)

confident- упевнений

congested- перевантажений

congestion- затор(руху), скупчення

consider- розглядати

considerably – значно, багато

constant – постійний, безперервний

consumer – споживач

consumption- споживання, витрата

contact shoes- башмак струмоприймача

contact wire - контактний провід

contactor boxes - контакторні ящики

contain- містить, утримувати

controller driver - контролер водія  
convenient – зручний, підходящий  
copper- мідний  
corner- кут, поворот  
counterbalance- урівноважувати, противага  
create- створювати, викликати, творити  
crowded- переповнений, стиснутий, здавлений, повний, наповнений  
current – електричний струм  
current- стум  
cylinder – циліндр  
Cyrillic- Кирилиця

## D

decade- десятиліття  
decorative elements-декоративні елементи  
dedicated- спеціальний  
definitely- звичайно, безсумнівно  
deliberately- навмисно, свідомо  
depth- глибина  
descending- низхідний  
designated - зазначений, призначений  
destination or route sign- пункт призначення або маршрутний знак  
determine – визначати, спонукати  
direction (turning) wheels-направляючі колеса  
direction- напрямок  
directly- безпосередньо, одразу  
disappear – зникати,ховатися  
discover – виявляти, відкривати  
diverse- різний, різноманітний  
double-decker- двоповерховий  
dress- перев'язувати (рану)

driver's cab- кабіна водія

dry- сухий

due- податки, мито, належний, відповідний

## Е

efficient- ефективний, дієвий, діючий

electric current- електричний струм

electric power- електроенергія

electric voltage – електрична напруга

electrical current – електричний струм

electrical engineering- електротехніка

electrical equipment- електричне обладнання

electrical phenomena- електричні явища

electricity – електричні явища

electrocute- вражати електричним струмом

electromagnet – електромагніт

embark –починати, сідати, вантажити

emergency medical attention- невідкладна медична допомога

engine – двигун, мотор

ensure- забезпечувати, гарантувати, страхувати

enterprise- підприємство

entirely- цілком, винятково, лише

entrance – вхід, вхідні двері

equip-обладнувати, оснащувати

escape- втеча, порятунок

except- крім, за винятком, виключати

exception- виключення, виняток

exclusively – виключно, лише

execute- виконувати (роботу)

exit doors- вихідні двері

expand- розширювати, розвивати



expansion- ріст, розвиток  
experience- досвід, випадок,  
discontinue- припиняти, зупиняти  
exploring - дослідження; подорожі з метою дослідження (невдомих районів)  
explosion- вибух  
extension -протяжність  
extra- особлива плата, націнка  
fair sex – жіноча стать  
fare – плата за проїзд  
feasible- підходящий, здійснений  
feature- особливість, властивість, показувати, відрізнятися  
feet- фут  
fine-штраф, штрафувати  
floor level at doorways- рівень підлоги у дверному отворі  
flow – рух рідини, течія; тексти  
fluid- рідина  
for a number of reasons- по ряду причин  
for instance – наприклад  
force- сила, міць  
forearm- передпліччя  
fracture- перелом, розрив  
freeway - автострада  
frighten - лякати  
fuel- паливо  
fume- дим  
functioning - функціонування  
funds- кошти

## G

gain – одержувати, отримувати

gauge- масштаб, розмір

generation- покоління

generator – генератор

gift – подарунок, дарувати

give out - виділяти, видавати, випускати , розподіляти, роздавати

government – уряд, керівництво

gradient- уклон, похил

gradually – поступово, послідовно

graduate- випускник

gravity – вага, сила тяжіння

group board - груповий розподільний щит

guide- провідний, провідник

## Н

hail- гукати, спиняти

hammer- наносити удари, стукати, стукати, убивати

haul-тягнути

headlights- фари

heat – тепло

Heathrow- Хітроу (аеропорт у Лондоні)

hire- прокат, здача, наймати

hitchhiking – автостоп

horse drawn –кінні

however- проте, однак

## I

iconic- традиційний

illegal – незаконний, нелегальний

immediately- негайно, безпосередньо, як тільки

impact- вплив

impending- загрозовий

in addition – крім того, до того ж

incandescent lamp-лампа розжарювання

inclined plane – похила площина

increase- збільшення, зростання

inexpensive- недорогий, дешевий

infrastructural- інфраструктура

initial – первісний, початковий

initially - з самого початку, спочатку; на ранній стадії

injunction – наказ, розпорядження

injure- забити, ушкодити, поранити

injury - шкода, травма

inter-car connection- з'єднання між вагоном

intermediate - проміжний

internal- внутрішній

inventor- винахідник

## **J**

jubilee- ювілей, свято

## **K**

kyivites- кияни

## **L**

launch- запускати

legacy – спадок, спадщина

length-довжина

licensed- ліцензійний

lightning arrestor - грозорозрядник

lightning- блискавка

load –вантаж, навантаження;завантажувати

local – місцевий

loop- вантажний бугель, замкнута система

loose- відкритий, нетугий

loud- голосно, голосний, сильний

lower deck-перший поверх

low-voltage- низьковольтний

lung- легеня

## M

magnet – магніт

magnetism – магнетизм, магнітні явища

mainly- здебільшого

mainstay- головна підтримка, опора

maintain - обслуговувати; тримати в гарному стані, підтримувати

manually- вручну

mast – щогла

mild - м'який ,слабкий

minicab- міні-таксі, маршрутчик

minor- незначний

moist- сирий, вологий

mounted – встановлений

municipal- муніципальний, міський

## N

neighborhood- сусідство, квартал, околиця

network- сітка, мережа

newly-заново, недавно

noisy- шумний, гучний

noteworthy- визначний

nuisance - досада, прикрість, неприємність, перешкода, незручність

## O

obtain- отримати

occur-відбуватися

offer- пропонувати, надавати

onset- початок

open top- відкритий верх

operate- діяти, працювати, експлуатувати

option- вибір, заміна

ornately- барвисто

outlying- віддалений, далекий

overhead line (overhead wires)- контактна мережа

owner- власник

## Р

particular- особливий; специфічний, частковість, подробиця, деталь

particularly – особливо, надзвичайно

passenger doors – пасажирські двері

path- велосипедна доріжка

pedestrian – пішохід

permission - дозвіл

petrol – бензин

pioneer-першовідкривач

plunge-занурюватись, стрімко просуватися

pole rope- трос штанговловлювача

pole storage hooks- кронштейн фіксації штанги

pole- палиця

precaution- обережність

predict-передбачати

preserve- зберігати, підтримувати

prevalent – розповсюджений, домінуючий, переважаючий

prevent- запобігати, перешкоджати, керувати

previously- зазделегіть

prohibited- заборонений

promote- просувати, підвищувати

proximity- близькість, сусідство

pulley- шків; блок; коловорот; барабан

## Q

queue- черга

## R

radiation- випромінювання

raid- тиск, натиск

rail - рейка, залізнична колія

raising- виведення, збільшення

rapid- швидкий

rarely- рідко, надзвичайно, винятково, нечасто

reach –діставати, брати, досягати,протяжність, простягатися

rear view mirror- дзеркало заднього виду

rebuilt- відновлений, капітально відремонтований, реконструйований

recognize -усвідомлювати

redevelop- реконструювати

reduce- зменшувати, скорочувати

relationship – взаємовідношення, залежність, співвідношення

reliable- надійний, міцний

remove- видаляти, знімати

renovate- відновлювати

required- необхідний

residential- жилий, житловий

resuscitation- реанімація

retire - віддалятися, піти, вилучати з обігу

retractors/retrievers-штанговловлювач

rheostat – реостат

rinse –промивати

route- маршрут, шлях, курс

rubber shoes- гумове взуття

rural- сільський

rut- колія

## S

safe- безпечний; який знаходиться в безпеці, надійний

scene- місце

seats-сидіння

section of wire coil – секція обмотки з дроту

sell (sold,sold)-продавти

separate- роз'єднувати; відділятися

separately – окремо

series of insulated coils – послідовність ізольованих котушок (секцій)

severe- важкий, серйозний

sheave- блок, ролик

shelter- укриття, бомбосховище

shelve- відкладати

side elevation- вид збоку

sign- вивіска, знак, оголошення

single ticket- одноразовий квиток

slightly- злегка, ледве

slope- схил

sound- звук

source- джерело

Soviet authorities-Радянська влада

sparse - рідкий, нещільний; розкиданий, розсіяний

stage – період ,етап

stairs to lower deck-сходи на перший поверх

stairs to upper deck-сходи на верхній поверх

stamp- ставити штамп, печатку; штемпелювати, штампувати, ставити або вибивати , маркірувати

stationary – нерухомий, стаціонарний, сталий

steam train- паровий потяг

steam –пар,енергія

steel - сталь

steel rails – сталеві рейки

steep- круча, крутий, надмірно високий

steering - управління кермом, руління ,керованість, рульове управління

stipulate – обумовлювати, ставити за умову

store – зберігати

straight ahead- іди прямо

strand- сідати на мілину, потрапити в скрутне становище

stretch– розтягувати, витягувати, напруга

subsequent- наступний, який є результатом

suburb- окраїна, передмістя

suffer- страждати; зазнавати

suggested – запропонований, навіяний

summarize-узагальнювати

supply – запас, постачання, живлення

suspect- припускати, допускати

switch- вимикач

## Т

terminus- кінцева точка

the basic laws- основні закони

the main breaker - головний автомат

though – однак, проте

time table- розклад, графік

tip –чайові

tissue – тканина

total track length- загальна довжина траси

track gauge- ширина колії

traction motors - тягові двигуни

traction wheels- тягові колеса

traffic light- світлофор

traffic- рух, транспорт, дорожній

treasure-скарби

trolley pole base and fairing/shroud- зовнішнє електрообладнання

trolley poles (power collector)- штанги

## U

unsure – небезпечний, ненадійний

until - вказує на момент, аж до якого здійснюється дія, до

update –коректувати, оновлювати

upper deck-верхній поверх

urban- міський

## V

valid- ефективний, обґрунтований, діючий

van- фургон, вагон

vaulter- стрибун (із жердиною)

vehicle- засіб пересування

via -путь , через; згідно маршруту через; 2) шляхом, за допомогою

victim- постраждалий

vital- життєво важливий

water wheel – гідротурбіна

wave-хвиля

weight – вага, вантаж, робити важким

westernmost- самий західний

wheel –колесо

while- час; проміжок часу,до

width – ширина

winch- коловорот, лебідка, колінчата рукоятка

winding terminals – затискачі обмотки

withstand- витримати

wooden- дерев'яний

## Список використаної літератури

1) Avakian T. The 17 most beautiful metro stations around the world [Електронний ресурс] / Talia Avakian. – 2015. – Режим доступу до ресурсу: 1) <http://www.businessinsider.com/most-beautiful-metro-stations-2015-9/#the-entrance-of-the-palais-royal-at-the-musee-du-louvre-in-paris-france-is-adorned-with-the-artwork-of-jean-michel-othoniel-which-intertwines-colored-beads-to-form-a-beautiful-design-16>.

2) The Royal Borough of Kensington and Chelsea. Health and Safety at Work Act [Електронний ресурс] / The Royal Borough of Kensington and Chelsea // 2017. – 1998. – Режим доступу до ресурсу: <http://vak.in.ua/do.php?s=1&a=1>.

3) Immihelp. Public transport [Електронний ресурс] / immihelp // 2017. – 1999. – Режим доступу до ресурсу: <http://www.immihelp.com/newcomer/publictransport.html>.

4) Internatoinis. Public Transport in the UK [Електронний ресурс] / Internatoinis // 2016 – Режим доступу до ресурсу: <https://www.internations.org/great-britain-expats/guide/16150-transport-driving/public-transport-in-the-uk-16145>.

5) Nifong T. 10 Fun Facts about Electricity [Електронний ресурс] / Tonia Nifong – Режим доступу до ресурсу: <http://www.berwickelectric.com/the-electrical-blog/bid/71719/10-Fun-Facts-about-Electricity>.

6) Wikipedia T. Electric current [Електронний ресурс] / Tonia Wikipedia // 2016 – Режим доступу до ресурсу: [https://en.wikipedia.org/wiki/Electric\\_current](https://en.wikipedia.org/wiki/Electric_current).

7) Robert A. Millikan and E. S. Bishop (1917). Elements of Electricity. American Technical Society. p. 54.

8) Howard M. Berlin, Frank C. Getz, Principles of Electronic Instrumentation and Measurement, p. 37, Merrill Pub. Co., 1988 ISBN 0-675-20449-6.

9) Jim Lucas. What Is Electric Current? [Електронний ресурс] / Jim Lucas – Режим доступу до ресурсу: <http://www.livescience.com/53889-electric-current.html>.

10) EVGENY PAVLOV. Yaroslavl Double-decker trolley bus on Moscow streets [Електронний ресурс] / EVGENY PAVLOV – Режим доступу до ресурсу: <http://yarforme.blogspot.com/2009/05/yaroslavl-double-decker-trolley-bus-on.html>.

11) Herwig Rothländer. TENSES EXERCISES [Електронний ресурс] / Herwig Rothländer. – 2016. – Режим доступу до ресурсу: [http://www.english-4u.de/tenses\\_exercises.html](http://www.english-4u.de/tenses_exercises.html).

12) John Prentice. Tramway Origins and Pioneers [Електронний ресурс] / John Prentice. – 2003. – Режим доступу до ресурсу: <http://www.tramwayinfo.com/Tramframe.htm?http://www.tramwayinfo.com/tramways/Articles/Origins.htm>.

13) State Government Victoria Better Health Channel Logo. Electric shock [Електронний ресурс] / State Government Victoria Better Health Channel Logo. – 2016. – Режим доступу до ресурсу: <https://www.betterhealth.vic.gov.au/health/healthyliving/electric-shock>.

14) Prof.dr.ir. C. Esveld. TRACK STRUCTURES IN AN URBAN ENVIRONMENT [Електронний ресурс] / Prof.dr.ir. C. Esveld. – 1997. – Режим доступу до ресурсу: <http://www.esveld.com/Download/TUD/urbanx.pdf>.

15) Ian and Alice Semple. Glasgow Corporation Transport [Електронний ресурс] / Ian and Alice Semple. – 2014. – Режим доступу до ресурсу: <http://www.semple.biz/glasgow/jubilee1922.shtml>.

16) Ian Stewart. Glasgow 'a city that loved trams' [Електронний ресурс] / Ian Stewart. – 4. – Режим доступу до ресурсу: <http://www.bbc.com/news/uk-scotland-glasgow-west-19474957>.

17) Dunbar, Charles S. (1967). Buses, Trolleys & Trams. Paul Hamlyn Ltd. (UK) [republished 2004 with ISBN 0-7537-0970-8 or 9780753709702]

18) Murray, Alan (2000). World Trolleybus Encyclopaedia. Trolleybooks (UK). ISBN 0-904235-18-1

19) McKay, John P. Tramways and Trolleys: The Rise of Urban Mass Transport in Europe (1976)

20) Dunbar, Charles S. (1967). Buses, Trolleys & Trams. Paul Hamlyn Ltd. (UK) [republished 2004 with ISBN 0-7537-0970-8 or 9780753709702]

