

**АНГЛІЙСЬКА МОВА  
ДЛЯ СТУДЕНТІВ  
ЗАЛІЗНИЧНИХ ВУЗІВ**

*Підручник*

**Частина 2**

**Харків – 2017**



**МІНІСТЕРСТВО ОСВІТИ І НАУКИ  
УКРАЇНИ**

**УКРАЇНСЬКИЙ ДЕРЖАВНИЙ  
УНІВЕРСИТЕТ ЗАЛІЗНИЧНОГО  
ТРАНСПОРТУ**

**АНГЛІЙСЬКА МОВА  
ДЛЯ СТУДЕНТІВ  
ЗАЛІЗНИЧНИХ ВУЗІВ**

***Підручник***

**Частина 2**

**Харків – 2017**

УДК 811.111(75)

ББК 81.2я7

А 647

*Рекомендовано вченою радою Українського державного університету залізничного транспорту як підручник (витяг з протоколу № 8 від 29 листопада 2016 р.)*

**Рецензенти:**

професор, академік АН ВШ України І. С. Шевченко  
(ХНУ ім. В. Н. Каразіна),

професори В. П. Сімонок (НЮУ ім. Ярослава Мудрого),  
Л. С. Піхтовнікова (ХНТУСГ ім. Петра Василенка)

**Авторський колектив:**

С. М. Донець, О. В. Ель-Кассем, Л. І. Золотаревська,  
В. М. Михайленко, О. П. Фіщенко

Англійська мова для студентів залізничних вузів: Підручник  
**А 647** / С. М. Донець, О. В. Ель Кассем, Л. І. Золотаревська та ін. –  
Харків: УкрДУЗТ, 2017. – Ч. 2. – 165 с.

**ISBN 978-617-654-068-7**

Підручник складено відповідно до програми з іноземних мов для немовних вузів. Мета підручника – підготувати майбутніх спеціалістів залізничного транспорту до професійно-орієнтованого усного та письмового спілкування.

Ефективне оволодіння мовою забезпечується системою комунікативних вправ, що стимулюють інтерес студентів та їх творчу активність. Текстовий матеріал підручника дає багату інформацію стосовно історії, най-важливіших аспектів роботи та тенденцій розвитку залізниць як України, так і інших країн світу. Тексти складено за сучасними матеріалами спеціалізованих британських і американських періодичних видань, а саме: *International Railway Journal, European Rail Outlook, Railway Gazette* та *Railvolution*.

Рекомендується як базовий курс для студентів вищих і середніх навчальних закладів залізничного транспорту на першому та другому роках навчання.

УДК 811.111(75)  
ББК 81.2я7

ISBN 978-617-654-068-7

© Український державний університет  
залізничного транспорту, 2017.

Підручник

Донець Світлана Михайлівна,  
Ель-Кассем Олена Володимирівна,  
Золотаревська Лада Ігорівна  
та ін.

АНГЛІЙСЬКА МОВА  
ДЛЯ СТУДЕНТІВ  
ЗАЛІЗНИЧНИХ ВУЗІВ

*Підручник*

Частина 2

Відповідальний за випуск Ель Кассем О. В.

Редактор Третьякова К. А.

---

Підписано до друку 10.11.16 р.

Формат паперу 60x84 1/16. Папір писальний.

Умовн.-друк.арк. 7,50. Тираж 100. Замовлення №

Видавець та виготовлювач Українська державна академія залізничного транспорту,  
61050, Харків-50, майдан Фейербаха, 7.  
Свідоцтво суб'єкта видавничої справи ДК № 2874 від 12.06.2007 р.

## CONTENTS

<b>Unit 6.</b> <i>Grammar</i> present participle and past participle; compound forms of present participle; absolute participle construction; compound sentences; types of subordinate clauses; <i>Text</i> Power Supply System; <i>Supplementary text A</i> New Energy from Old Sources; <i>Supplementary text B</i> : Fuel Cells Switch Trains onto a Greener Track; <i>Word Building</i> -ward(s), -wise; a-, -ure, -ture; dis-, mis-, de- .....	4
<b>Unit 7.</b> <i>Grammar</i> gerund; the use of <i>that</i> ; modal verbs <i>should, would, shall, will, need, dare</i> ; <i>Text</i> New Technologies on World Railways; <i>Supplementary text A</i> : Computer Crime; <i>Supplementary text B</i> : The Knowledge Society; <i>Supplementary text C</i> : World's First Train Tunnel Simulation Facility; <i>Word Building</i> un-, in-, il-, im-, ir-, non-; -ly; -ize, -fy .....	38
<b>Unit 8.</b> <i>Grammar</i> infinitive; attributive groups; <i>Text</i> High Speed Rail Network; <i>Supplementary text A</i> : High-Speed Trains versus Automobiles and Airplanes; <i>Supplementary text B</i> : What is Maglev? <i>Supplementary text C</i> : Russian First High Speed Train Sapsan Enters Service; <i>Word Building</i> conversion, compound words .....	67
<b>Unit 9.</b> <i>Grammar</i> complex object and complex subject; modal verbs: certainty and possibility in present and past; phrasal verbs; <i>Text</i> Railway Transport Economics; <i>Supplementary text A</i> : Logistics on the Move; <i>Supplementary text B</i> : Advertising Then and Now; <i>Supplementary text C</i> : Revolution in Ticketing; <i>Word building</i> compound words, -ed, self+present (past) participle .....	98
<b>Unit 10.</b> <i>Grammar</i> subjunctive mood; three types of conditional sentences; emphasis, inversion; compound conjunctions; compound prepositions; <i>Text</i> The Future of Rail Transportation; <i>Supplementary text A</i> : Four Eurasian Corridors; <i>Supplementary text B</i> : China to Attempt New World Speed Record; <i>Supplementary text C</i> : Faster Than Airplane.....	127
<b>Appendix</b> .....	160

## UNIT 6

*Grammar:* Present Participle and Past Participle

Compound Forms of Present Participle

Absolute Participle Construction

Compound Sentences and Types of Subordinate Clauses

*Text:* Power Supply System

*Supplementary text A:* New Energy from Old Sources

*Supplementary text B:* Fuel Cells Switch Trains onto a Greener Track

*Word Building:* -ward(s), -wise; a-; -ure, -ture; dis-, mis-, de-

### READING RULES

<b>Oo</b>	перед сполученням <b>ld</b>	[ou]	old, cold
	у сполученні <b>oa</b>	[ou]	boat, load
	у сполученні <b>ow</b>	[ou] [au]	slow, sow town, down
	у сполученні <b>oo</b>	[u:] [u]	moon, soon look, took
	у сполученні <b>ou</b>	[u:] [au] [ʌ]	soup, group out, house couple, young
	у сполученнях <b>oi, oy</b>	[ɔi]	boy, toy, voice
	у сполученні <b>ow</b> перед <b>er</b>	[ʌvə]	power, tower
	у сполученні <b>oo + r</b>	[ɔ:]	door, floor
	у сполученні з літерами <b>m, n, th, v</b>	[ʌ]	dove, some, won, mother
	у сполученні з <b>our</b>	[ɔ:]	your, four
	у сполученні <b>ou + gh</b>	[ʌf]	rough, enough

#### **Exercise 1. Read the following word groups:**

[ou] old, sold, cold, gold, bold, fold, slow, sow, low, row, snow, grow, yellow, own, growth, know, show, blow, throw, boat, load, road, soap, throat, coast;

[au] town, down, gown, brown, how, out, house, loud, round, about, amount, pound, ground;

[u:] moon, soon, spoon, tool, pool, too, zoo, food, soup, group;

[u] look, took, good, hook, brook, book;

[ʌ] couple, young, country, trouble, dove, some, won, front, month, mother, brother, come, love, glove, wonder, rough, enough, tough;

[ɔɪ] boy, toy, voice, noise, coin, soil, boil;  
 [aʊə] power, tower, lower, flower, bower;  
 [ɔ:] door, floor, your, four, pour.

### Exercise 2. Read the following words:

go, doll, lot, spoke, clock, cold, gob, sold, log, cold, book, rock, bottle, home, sooty, box, too, spoke, moon, joke, role, pole, shoot, loom, conquest, hole, toe, snow, doctor, sport, born, long, Rome, bold, worker, more, town, round, know, voice, front, mother, among, aloud, along, ignorant, some, parrot, love, boy, boil, worse, cold, philosophy, monitor, narrow, wood, strong, noise, actor, round, flower, smoker, phlox.

## GRAMMAR

### Present Participle and Past Participle

(Дієприкметник теперішнього та минулого часу)

#### Use of Participles

Функція дієприкметника	Present Participle	Past Participle
Означення (одиначне або у складі підрядного речення)	<i>They watched the <u>burning</u> forest.</i> – Вони спостерігали за палаючим лісом.	<i>She looked at the <u>broken</u> chair.</i> – Вона подивилася на поламаний стілець.
	<i>He had a briefcase <u>containing</u> \$1,000.</i> (= <i>that contained</i> ) – У нього був портфель, де знаходилось 1000 доларів.	<i>The cash <u>stolen</u> in the raid was never found.</i> (= <i>that was stolen</i> ) – Готівка, вкрадена під час нападу, ніколи не була знайдена.
Обставина	<i>She sat by the fire <u>reading</u> a book.</i> – Вона сиділа біля вогнища, читаючи книгу. <i><u>Not knowing</u> what to do, I waited patiently.</i> – Не знаючи що робити, я терпляче чекав.	<i><u>Weakened</u> by illness, she could hardly sit up.</i> – Ослаблена хворобою, вона ледь могла сісти. <i>He went to the party <u>dressed</u> as a monkey.</i> – Він пішов на вечірку, одягнений мавпою.

**Exercise 3. Read the sentences and find all participles. Point out their functions.**

1. I fell asleep watching television. 2. Taken by surprise, he didn't know what to say. 3. I sat there not listening to a word. 4. Boiling water turns to steam. 5. The terrorists used a stolen car. 6. I noticed a lorry coming down the hill. 7. The road is blocked by a tree fallen during the storm. 8. Coming up the steps, I fell down. 9. The old woman walked slowly to the lift, assisted by the porter.

**Exercise 4. Complete these sentences putting in the correct Participle form of the verbs in brackets.**

1. I love the noise of (*fall*) rain. 2. She says she's got a (*break*) heart. 3. Most of the people (*invite*) to the party didn't turn up. 4. We couldn't agree on any of the problems (*discuss*). 5. Britain's trade position has been (*weaken*) by inflation. 6. (*Serve*) with milk and sugar, it makes a delicious breakfast. 7. We can offer you a job (*clean*) cars. 8. (*Not wish*) to continue my studies, I decided to become a dress designer. 9. The hills are (*cover*) in snow. 10. Anyone (*touch*) that wire will get a shock.

**Exercise 5. Change the participle construction into a subordinate clause.**

*Model:* All goods sold in this department store are of high quality.  
*All goods that are sold ...*

1. The measures taken improved the quality of goods. 2. Special attention paid to advertising has brought results. 3. We hope that consumer goods produced in our country will be at the world standard level. 4. People travelling in early trains experienced some discomfort.

**Exercise 6. Choose the Present or Past Participle given in brackets.**

1. I found the film very (*boring, bored*). 2. I got so (*boring, bored*) waiting for you to arrive. 3. John is the most (*boring, bored*) man I've ever met. 4. Don't look so (*surprising, surprised*)! 5. Mother looks very (*worrying, worried*). 6. The rise in crime is very (*worrying, worried*). 7. Don't you find shopping (*tiring, tired*)? 8. Don't you find John rather (*tiring, tired*)? 9. She's always (*annoyed, annoying*) about something.

**Exercise 7. In the following pairs of sentences, the same verb is missing twice, once as the Present Participle and once as the Past Participle. Choose the verb and form the Participle required.**

*grow, injure, amaze, drive, produce, ~~take~~*

*Model:* Books *taken* out of the library must be returned within three weeks. People *taking* books out of the library, which haven't been stamped, will be banned.

1. The film, ... by Stephen Spielberg, is a great hit. Power stations ... enough energy to supply several towns are building on the south coast.  
2. I fell on the ice, ... my arm. Three people, ... when their car crashed, were taken to hospital.  
3. People ... to work from Stafford to Blaby should know of roadworks there. The first train, ... by steam, was called Stephenson's Rocket.  
4. Crops ... under glass mature (визрівати) more quickly than those in the open air. Farmers ... such crops can therefore catch the early markets.  
5. I stared at the canvas ... by the artist's skill and eye for detail. Swiss watches, ... for their elegance and precision, are sold throughout the world.

### **Compound Forms of Present Participle**

(Складні форми дієприкметника дійсного часу)

*Present Participle* може мати прості (*asking*) та складні форми (*being asked, having asked, having been asked*).

*Past Participle* має лише просту форму (*asked*).



		<b>Present Participle</b>	
		<b>Active</b>	<b>Passive</b>
<b>Indefinite</b>	<b>дія, виражена дієприкметником, відбувається одночасно з дією, що виражена присудком</b>	<b>giving</b> <i>The professor <u>giving</u> a lecture showed many diagrams. – Викладач, <u>що читав</u> лекцію, продемонстрував багато діаграм. (<i>giving</i> – означення)</i>	<b>being asked</b> <i>The student <u>being asked</u> by the teacher gave an excellent answer. – Студент, <u>якому</u> викладач поставив запитання, дав блискучу відповідь. (<i>being asked</i> – означення)</i>
	<b>Гiving a lecture the professor showed many diagrams. – Читаючи лекцію, викладач продемонстрував багато діаграм. (<i>giving</i> – обставина)</b>	<b>Being asked the student didn't know what to say. – Коли студента запитали, він не знав, що відповісти. (<i>being asked</i> – обставина)</b>	
<b>Perfect</b>	<b>дія, виражена дієприкметником, відбулася раніше, ніж дія, виражена присудком</b>	<b>having given</b> <i><u>Having given</u> a lecture, the professor answered a lot of questions. – <u>Прочитавши</u> лекцію, викладач відповів на багато запитань. (= після того, як викладач прочитав лекцію ...)</i>	<b>having been asked</b> <i><u>Having been asked</u> a lot of questions, the lecturer decided to give an explanation. – <u>Після</u> того, як лектору поставили багато запитань, він вирішив пояснити.</i>

**Exercise 8. Give all compound forms of the Present Participle of the following verbs.**

*Model: to accept – being accepted, having accepted, having been accepted.*

Cover, read, look, wait, give, go, laugh, come, write, sleep, ring.

### **Exercise 9. Read and translate the word combinations.**

having entered the Institute	having been asked about the
having calculated the distance	work, ...
having developed the speed of 120 km/h	having been published in many languages, ...
having introduced new methods of work	having been adopted, the resolution, ...
having decided to leave the city	having been taken, this decision, ...
having divided the apple into three parts	having been sorted, all materials, ...
having installed new equipment	having been delivered, the information, ...
having obtained the necessary data	having been sent, the letters, ...
having found the new way	having been cleaned, the territory, ...
having changed his behaviour	having been changed, the methods, ...
	having been manufactured, a new design, ...

### **Exercise 10. Translate the word combinations.**

вивчивши іноземну мову	вивчаючи іноземну мову
прочитавши цікаву книгу	читаючи цікаву книгу
зробивши домашнє завдання	виконуючи домашнє завдання
зателефонувавши інженеру	телефонуючи інженерові
застосувавши новий метод	застосовуючи новий метод
відповівши на усі запитання	відповідаючи на усі запитання
закінчивши роботу вчасно	закінчуючи роботу
загубивши їхню адресу	шукаючи їхню адресу
вибравши необхідний маршрут	вибираючи необхідний маршрут
заснувавши новий офіс	засновуючи новий офіс

### **Exercise 11. Find participles and state their functions. Translate the sentences.**

1. Not having bought tickets in advance, we had to go to the theatre long before the performance started. 2. Having finished the test, the students were allowed to leave the room. 3. The man making a report is a good speaker. 4. When asked about the exhibition held in the

Gallery, the young man said that he had admired it greatly. 5. Being fond of skiing, John always joins us for skiing trips at weekends. 6. Having been given all the instructions, we began our work. 7. If sent away now, the letter will arrive the day after tomorrow. 8. Not knowing grammar, one cannot speak correctly. 9. Having been properly tested, the device was put into production. 10. The building of the new cinema being built in our street just now is of modern design. 11. Being divided into sections, the railway handles the traffic more efficiently. 12. Having been warned of the train collision, the dispatcher immediately sent a special train to the scene of the accident. 13. Being introduced on the railways, the automatic train control will facilitate both the work of the driver and dispatcher.

**Exercise 12. Put in the correct form of the participles.**

*Model: Having filled up with petrol, we continued our journey.*

1. I broke a tooth (*bite*) on a nut. 2. Michael drove home from work, (*achieve*) nothing all day. 3. I just had to stand there (*stare*) at by all those people. 4. (*Look*) round the museum, we went back to our hotel. 5. (*Eat*) every single sandwich, we had no food left. 6. The drugs entered the country (*hide*) in a container. 7. (*Search*) the building, the police went away again. 8. (*Catch*) sight of Adam across the street, she waved at him.

**Exercise 13. Rewrite the sentences, using the Perfect Participle.**

*Model: He finished work and went home. – Having finished work, he went home.*

1. He read a book and went to bed. 2. He worked hard and saved a lot of money. 3. I came to live in the country a few years ago. I now realize how much I hated living in town. 4. He graduated from university, and went off to work in Australia. 5. I came across a wonderful book. I was searching for something interesting to read for several days. 6. I worked hard, and I managed to pass all my exams. 7. When we heard the weather forecast, we decided not to go camping in the mountains.

**Exercise 14. Change the following sentences, using participles instead of the subordinate *italicised* clauses.**

1. The people *who live in this old block of flats* will soon get new flats.
2. The question *which is being discussed now* is very important for the organization of our future work.
3. *As we had a lot of time*, we did not hurry.
4. *As I had left your telephone number at home*, I could not ring you up.
5. The woman *who is being painted just now* is a famous actress.
6. *As he was ill for a long time*, he could not finish his project in time.
7. *After I had read the book*, I returned it to the library.
8. Young artists *who are taking part in this exhibition* have graduated from the institute quite recently.
9. *While she was looking at his picture* she was thinking of the progress he had made.

**Exercise 15. Translate the word combinations using participles.**

Лист, одержаний вчора; одержуючи листи; одержавши листа; студенти, які слухають доповідь; прослухав останні новини; слухаючи радіо; дівчинка, яка читає книгу; читаючи книгу; прочитав книгу; студент, який показує свій проект; проект, показаний нам; показуючи свій проект; показав свій проект; маючи усі необхідні документи; коли нас запитали; коли до нас звернулися; зробивши переклад; перекладаючи.

Одиночне *Past Participle* (іноді *Present Participle*) у функції означення може стояти після іменника.

The velocity of a reaction depends on the specific nature of the substances involved. – Швидкість реакції залежить від певної природи даних речовин.

**Exercise 16. Make up sentences matching the suggested parts. Translate your sentences.**

The questions	tested	demanded further consideration.
The equipment	discussed	showed good performance.
The results	obtained	proved the validity of this method.
The goods	decomposed	speeded up the reaction.
The data	described	required improvement.
The substances	delivered	helped to satisfy growing demand.
	produced	worked properly.

### **Exercise 17. State the function of words ending in –ed.**

1. They published the results of the experiments completed. 2. The factory museum contained about 8,000 exhibits collected during two centuries. 3. He described the method used by this engineer. 4. The engineer used the method described in this article. 5. The paintings discussed attracted the attention of many visitors. 6. The articles published by this scientist are translated and reprinted abroad.

### **Exercise 18**

#### **a) complete and elaborate the following:**

*Model:* When expressing sympathy ... .

*When expressing sympathy, we say 'I'm sorry for you'.*

#### **What do you usually say:**

(when) parting with the host of the party; expressing one's apology; comforting somebody; congratulating somebody on the birthday; making an appointment with your rector.

#### **What do you usually do (say):**

(when, after, while) being angry; praising somebody; having fallen in love; arguing; announcing the incoming train; playing the host at the party; looking for a job; debating a point.

#### **What would you do (say):**

having got a bad mark; having found a promising job vacancy; having missed the train; having found a wallet.

#### **b) home assignment: get ready to describe an exciting film, an embarrassing situation, some disappointing news.**

### **Absolute Participle Construction**

(Незалежний дієприкметниковий зворот)

Дієприкметникові звороти з *Present Participle* та *Past Participle* поділяються на залежні та незалежні. Залежні дієприкметникові звороти відносяться до підмета всього речення. Незалежні дієприкметникові звороти мають свій особистий підмет і відокремлюються від головного речення комою.

*Absolute Participle Construction* на початку речення перекладається підрядним реченням умови, причини або часу, які вводяться такими сполучниками: *якщо, через те що, оскільки, з огляду на те що, коли, після того як.*

*The conditions permitting, we shall test the new model tomorrow.* (якщо)

*The professor being ill, the lecture was put off.* (через те що)

*The work having been completed, Mr Jones left London for Moscow.* (після того як)

*Absolute Participle Construction* на кінці речення передає супутні обставини та перекладається самостійним реченням із такими словами: *причому, у той час як, при цьому.*

The owner was fined by the Customs, *the goods being confiscated.* (причому)

A little girl walked past, *her doll dragging* behind her on the pavement. (а)

Примітка – у науково-технічній літературі самостійний дієприкметниковий зворот часто вводиться прийменником *with*, який не перекладається.

*With the experiments having been carried out, we started new investigations.* – Після того, як були проведені експерименти, ми почали нові дослідження.

### **Exercise 19. Translate the sentences paying attention to the translation of the Absolute Participle Construction.**

1. This is a device used for detection and measurement of light, its principle of action being simple. 2. The monorail having been built in Tokyo, the problem of traffic congestion was partly solved. 3. With the driver's cab equipped with radio, the danger of train collision can be easily eliminated. 4. The information on the goods trains at the sorting yard being processed by computers, the efficiency of sorting operations is very high. 5. Both electric and diesel locomotives are now in operation on our railways, the diesel being the best type for marshalling yards. 6. Stations and other railway buildings being subjected to intensive vibration and noise, strong and sound-resistant materials should be used in their construction.

### **Exercise 20. Combine two sentences, using the Absolute Participle Construction.**

*Model:* The book was interesting. We read it with pleasure.

*The book being interesting, we read it with pleasure.*

1. Our friend helped us. We could fulfil our work in time. 2. There were no trams at that late hour. We had to walk home. 3. The magazines have been brought. The students could start doing translations. 4. The experiment has been over. Everybody left the laboratory. 5. The speaker has finished the report. We began discussing it.

**Exercise 21. Translate the sentences, stating the form and function of the Participle.**

1. The translated article was very interesting. The article being translated by this student is necessary for the report. Having been translated, the article was published. Having translated the article, the student showed it to the teacher. The article translated, we decided to show it to the engineer.

2. He was given a very difficult text for translation. The text given to him at the examination was very difficult. Being occupied in his work, he did not notice when we entered the room. The text being interesting, we translated it with pleasure.

3. The key having been found, we could open the room. Having found the work interesting, I decided to take part in it.

4. The letter having come too late, we could do nothing. People coming to St Petersburg admire its architectural ensembles.

**Compound Sentences**

**Types of Subordinate Clauses**

(Складне речення. Типи підрядних речень)

<i>Підрядне речення – підмет</i>	
<b>that</b> – що, те що <b>if, whether</b> – чи <b>who</b> – хто <b>what</b> – що, який <b>which</b> – який <b>when</b> – коли <b>where</b> – де <b>how</b> – як <b>why</b> – чому	<p><b>That</b> he understands his mistake is clear. – Ясно, що він розуміє свою помилку.</p> <p><b>Whether</b> the train will arrive on time is not known yet. – Чи прийде потяг вчасно, ще не відомо.</p>

<i>Підрядне речення – присудок</i>	
ті ж самі прислівники	The problem is <b>how</b> to ensure safety. – Задача полягає у тому, як надати безпеку.
<i>Додаткове підрядне речення</i>	
<b>that</b> – що <b>if, whether</b> – чи <b>who</b> – хто <b>what</b> – що <b>which</b> – який <b>when</b> – коли <b>where</b> – де <b>how</b> – як <b>why</b> – чому	We know <b>where</b> she lives. – Ми знаємо, де вона мешкає.  They said ( <b>that</b> ) the car had been examined. – Вони сказали, що машину перевірили.
<i>Означальне підрядне речення</i>	
<b>who</b> – хто <b>whose</b> – чий, якого <b>which, that</b> – який <b>where</b> – де <b>why</b> – чому	I bought the coat <b>which/that</b> was in the shop window. – Я купив пальто, що було у вітрині магазину.  I met the man <b>who/that</b> works in the bank. – Я зустрів людину, яка працює у банку.
<i>Підрядне речення обставини часу</i>	
<b>when</b> – коли <b>after</b> – після того як <b>before</b> – до того як <b>till</b> – до тих пір <b>while</b> – у той час як <b>since</b> – з тих пір як <b>as soon as</b> – як тільки	<b>As soon as</b> he comes let me know. – Як тільки він прийде, повідом мене. <b>When</b> babies laugh, we know that they are happy. – Коли діти посміхаються, ми знаємо, що вони щасливі.  I met my wife <b>while</b> I was at University. – Я зустрів дружину, коли навчався в університеті.
<i>Підрядне речення обставини місця</i>	
<b>where</b> – де <b>wherever</b> – де б ні, куди б ні	<b>Wherever</b> you go you must remember about it. – Куди би ви не поїхали, ви повинні пам'ятати про це.
<i>Підрядне речення обставини причини</i>	
<b>because</b> – тому що <b>as</b> – так як <b>since</b> – так як	He cannot go to the cinema <b>because</b> he is busy. – Він не може піти у кіно, тому що зайнятий.



<i>Підрядне речення обставини способу дії</i>	
<b>as</b> – як <b>that</b> – що <b>as if, as though</b> – як би	She speaks so loudly <b>that</b> everybody can hear her. – Вона говорить так голосно, що усі можуть її чути.
<i>Підрядне речення обставини мети</i>	
<b>that</b> – щоб <b>so that, in order that</b> – щоб, для того щоб <b>lest</b> – щоб не	She must speak louder <b>so that</b> everybody can hear her well. – Вона повинна говорити голосніше, щоб усі могли її чути. They kept watch all night <b>lest</b> robbers come. – Вони чергували усю ніч, щоб не зайшли грабіжники.
<i>Підрядне речення обставини умови</i>	
<b>if</b> – якщо <b>provided that, on condition that</b> – за умови, що <b>unless</b> – якщо тільки не	I won't marry you <b>unless</b> you give up smoking. – Я не піду за тебе заміж, якщо ти не кинеш палити. I'll give you the day off <b>on condition that</b> you work on Saturday morning. – Я дам тобі вихідний за умови, що ти працюватимеш у неділю.

**Exercise 22. Translate the sentences paying attention to subordinate clauses.**

1. He explained *that* network of roads covered the whole country.
2. He explained *that* the network of roads *that* covered the country was mainly concentrated in the Eastern part.
3. *If* the scientists could predict the earthquake in an area the population would be evacuated from the district in time.
4. He asked *if* everything was arranged for the meeting.
5. He asked him *whether* he had taken part in the conference.
6. *Since* you are unable to answer, perhaps we should ask someone else.
7. *Unless* the alloy (сплав) possessed the required qualities it could not be used in rocket engineering.
8. The attempt to improve the performance of the engine will be successful *provided* you take into consideration all factors.

**Exercise 23. Join the sentences with *who* or *which*.**

<i>Beginnings</i>	<i>Ends</i>
Do you know a shop?	He lives next door.
I know somebody.	He stole my car.
I want some plates.	He/She deals with exports.
I was at school with the man.	It isn't working.
I'd like to speak to the person.	It needs to be eaten.
She's got friendly with a boy.	It sells good coffee.
The police haven't found the man.	They last for years.
There's some cheese in the fridge.	She could mend that chair.
We've got some light bulbs.	They can go in the microwave.
This is the switch.	He is driving that taxi.

**Exercise 24. Put in *which* or *what*.**

*Model:* He got married again, which surprised everybody (*which* – відноситься до всього речення). I hope you'll give me what I need.

1. She cycles to work every day, ... keeps her healthy. 2. I very much liked ... you said at the meeting. 3. They gave me ... I asked for. 4. The lights suddenly went out, ... frightened Granny terribly. 5. This is ... I need. 6. Everybody arrived late, ... didn't surprise me in the least. 7. The door was locked, ... I wanted to know. 8. He wouldn't tell me ... I wanted to know. 9. She let me borrow one of her dresses, ... was very kind of her. 10. We're going to have to repair the roof, ... will cost a fortune.

**Exercise 25. Put the quotations together.**

1. 'I'll discuss it with you,' she said, in a voice	a) borrow your watch and tell you what time it is, then walk off with your watch. ( <i>Robert Townsend</i> )
2. A politician is a statesman	b) can be taught. ( <i>Oscar Wilde</i> )
3. Any man who hates dogs and babies	c) can't be all bad. ( <i>L Rosten on W C Fields</i> )
4. Anyone who has been to an English public school	d) that could have been used to defrost her refrigerator. ( <i>Rex Stout</i> )
5. Consultants are people who	e) what he never had. ( <i>Izaak Walton</i> )
6. No man can lose	f) who approaches every question with an open mouth. ( <i>Adlai Stevenson</i> )
7. Nothing that is worth knowing	g) will feel comparatively at home in prison. ( <i>Evelyn Waugh</i> )

**Exercise 26. Fill in the gaps with *who, which, where, whose* or *that*.**

1. I received a letter this morning ... really upset me. 2. A boy ... I went to school with, is still in hospital. 3. He's going to have an operation ... could save his life. 4. I recently went back to town ... I was born. 5. The people ... used to live next door moved a long time ago. 6. I met a girl ... I used to go out with. 7. She told me a story ... I found hard to believe. 8. She said she'd married a man ... had been married ten times before. 9. He lost all his money gambling ... really annoyed her. 10. Mary, ... parents both died a few years ago, is the same age as me. 11. He travelled to the Far East ... he got ideas for his books.

**Exercise 27. Compose sentences. Use each conjunction twice.**

A	B	C
1. I'd buy a new house		
2. I'll tidy the house	when	you go to work in the morning?
3. I'll call you		
4. If you want a ticket, you should phone the theatre	if	you see her.
5. What will he do	before	he gets the job?
6. I'm watching TV right now, but I promise I'll help you		my guests arrive.
7. You'll recognize her	as soon as	I won the lottery.
8. Do you have breakfast		dinner is ready.
		the ticket office opens.
		this programme finishes.

**READING COMPREHENSION**

**Active Vocabulary**

**power supply system** – система енергопостачання

**hardly** – *adv* ледве, навряд чи

**obtain** – *v* отримувати; *syn* *get, receive*

**source** – *n* джерело

**fossil fuel** – викопне паливо

**external (internal) combustion engine** – двигун зовнішнього (внутрішнього) згорання

**convert** (*smth into smth*) – *v* перетворювати

**consumer** – *n* споживач; *consume* – *v* споживати; *power consumption* – споживання енергії

**fuel efficiency** – коефіцієнт корисної дії палива

**loss** – *n* втрата, збиток

**rarely** – *adv* рідко, нечасто; *ant frequently*  
**supply** – *v* постачати; *n* поставка; *pl* запаси; *supplier* – *n* постачальник  
**current** – *n* струм, течія, потік; *direct current (dc)* – постійний струм; *alternating current (ac)* – перемінний струм  
**unit** – *n* прилад, устаткування, одиниця; *syn device*  
**reach** – *v* досягати, доходити  
**fluid** – *n* рідина, *adj* рідкий; *ant solid* – *adj* твердий  
**pressure** – *n* тиск; *press* – *v* натискати  
**transmit** – *v* передавати; *transmission* – *n* передача  
**be similar to** – подібний, такий самий; *syn be like*  
**instead (of)** – *adv* замість чогось  
**float** – *v* пливти (по воді, небу); *тут* піднімати  
**haulage capability** – тягова міцність  
**pull** – *v* тягти, *тут* перевозити  
**cargo** – *n* вантаж *syn load*  
**recycle** – *v* повторно використовувати  
**store** – *v* зберігати, *комп* запам'ятовувати  
**capture** – *v* захоплювати, поглинати  
**cell** – *n* батарея, акумулятор  
**application** – *n* використання, застосування, програма; *apply* – *v* використовувати, застосовувати  
**by-product** – *n* побічний продукт  
**consequence** – *n* наслідок  
**acid** – *n* кислота  
**harm** – *v* завдавати шкоди; *n* шкода  
**renewable** – *adj* відновлюваний; *ant non-renewable*; *renewal* – *n* відновлення

## IRREGULAR VERBS

<i>Infinitive</i>	<i>Simple Past</i>	<i>Past Participle</i>	<i>Translation</i>
blow	blew	blown	дути
burn	burnt / burned	burnt / burned	горіти
catch	caught	caught	ловити
dig	dug	dug	копати
feed	fed	fed	годувати, постачати
forget	forgot	forgotten	забувати
freeze	froze	frozen	заморожувати

**Exercise 28. Fill in the gaps with the appropriate words from the active vocabulary:** *efficiency, external, reach, to obtain, fossil fuels, consume, losses, pressure*. **Translate the sentences.**

1. Environmentalists would like to see ... replaced by renewable energy sources. 2. China will not tolerate any ... interference in its affairs. 3. Industrialized countries ... natural resources in huge quantities. 4. They didn't ... the border until after dark. 5. I was impressed by the ... with which he handled the crisis. 6. The magazine's ... totalled almost \$ 5 million. 7. I finally managed ... a copy of the report. 8. The team performs well under ... .

**Exercise 29. Translate the words and word combinations from the text.**

Railway engineering, incomplete combustion of fuel, thermal efficiency, to be externally supplied with, to be significantly cheaper to run, recently designed systems, to be capable of reaching a high speed, to use fluids under pressure, to transmit and regulate power to the wheels, to have studies underway, hydrogen-fuelled cells, environmental consequences, the global warming, environmentally friendly technologies.

**Exercise 30. Translate the sentences with *to apply, appliances, an application* and *an applicant* in non-technical situations.**

1. To enter the University one must *apply* for admission and hand in a written *application*. Then, one must take the entrance examination. These rules *apply* to every *applicant* without exception.

2. I must go shopping today. Come with me. OK. I don't intend to buy anything, I want to *apply* for help and detailed information to a shop selling electrical *appliances*. You know the shop where they sell labour-saving devices for the home: refrigerators, electric razors and irons, washing-machines, cameras, radio and television sets and many other things one may want in the house. The trouble is with my vacuum cleaner. I am not engineering-minded and apparently handle and use it in the wrong way.

**Exercise 31. Translate the following sentences paying attention to possible different translations of the verbs.**

*convert*: 1. They converted the bedrooms into an office. 2. European missionaries converted thousands to Christianity. 3. She succeeded in converting me to her point of view.

*reach*: 1. The kids have reached the age when they can care for themselves.

2. Prices rose steadily to reach record levels. 3. It took the jury three days to reach a verdict. 4. We reached London late at night. 5. I can probably reach him on his mobile.

*consume*: 1. A smaller vehicle will consume less fuel. 2. He was consumed with guilt after the accident. 3. Alcohol may not be consumed on the premises.

*float*: 1. She spent the afternoon floating on her back in the pool. 2. I looked up the clouds floating in the sky. 3. The sound of her voice came floating down from an upstairs window. 4. Russia decided to float the rouble in the foreign exchange market.

**Exercise 32. Pre-text discussion.**

What kind of energy sources do you know? What are the most dangerous of them and the most environmentally friendly? What alternative energy sources are the cleanest, cheapest and most reliable? What alternative energy sources can be used for powering homes, businesses, and automobiles? What energy source provides more than half of the Ukraine's electricity supply?

*Text*

**POWER SUPPLY SYSTEM**

(1) Nowadays technical progress including the progress in railway engineering is unthinkable without the proper power supply system. In fact, one can hardly find a sphere where power is not required. Most of the power required is obtained mainly from two sources. The first way is burning fossil fuels (coal, natural gas, oil) to produce heat for internal and external combustion engines. Many of these engines will actuate generators producing electricity. The second way is converting power of steam and water into electricity.

One of the biggest consumers of energy is railway network system. And most of the energy is consumed by locomotives. There are four major types of locomotives used: *Steam locomotive*, *Electric locomotive*, *Diesel locomotive*, and *Magnetic levitation locomotive*<sup>1</sup>.

(2) **Steam locomotives** burn coal, wood, or other materials, converting water into steam. Before the middle of the 20<sup>th</sup> century electric and diesel locomotives began replacing steam locomotives. Some advantages that electric and diesel locomotives offered were much more fuel efficiency and less pollution. Because of heat losses and incomplete combustion of fuel, thermal efficiency of steam locomotives was rarely more than 6 percent.

(3) **Electric locomotives** are externally supplied with electric power, either through an overhead pickup<sup>2</sup> or through a third rail. Though the cost of electrifying a track is rather high, electric trains and locomotives are significantly cheaper to run. Almost all high-speed train systems use electric locomotives. These locomotives can use either direct or alternating current. While recently designed electrified railway systems operate on alternating current, many existing direct current systems are still in use. Electric locomotives are usually very powerful, fast and long-lived machines.

(4) **Diesel locomotives** may be divided into four groups: *Diesel-electric*, *Diesel-mechanical*, *Diesel-hydraulic*<sup>3</sup> and *Gas turbine-electric locomotives*.

*Diesel-electric locomotives* were introduced in the United States in 1924, and have become the most widely used type of locomotives. The modern diesel-electric locomotive is a self-contained<sup>4</sup>, electrically propelled<sup>5</sup> unit. In the 1970s British Rail (BR) developed a high-speed diesel electric locomotive called *the High Speed Train*, which was capable of reaching speeds of up to 284 km/h, although in service it only reached a speed of 200 km/h.

*Diesel-mechanical locomotives* are less powerful than electric and diesel-electric systems, they are only used with the smallest trains.

*Diesel-hydraulic locomotives* use fluids under pressure to transmit and regulate power to the wheels.

*Gas turbine-electric locomotives* are of the rarest type. They are similar to the diesel-electric ones but use a gas turbine to drive the

generator. The technology is used primarily on turbotrains, high-speed passenger trains that do not have locomotives but instead are powered by units built into one or more of their cars.

**(5) Magnetic levitation locomotives (Maglev)** present the newest technology in locomotives. These electrically powered trains have a special open motor, which floats the train above the rail without the need for wheels. Very few systems are in service and the cost is very high. The experimental Japanese magnetic levitation train has reached 581km/h.

**(6)** There is a growing interest around the world in alternative fuels because railways are demanding increased haulage capability to improve productivity, which means pulling more cargo with the same number of locomotives.

In 2007 GE Transportation (USA) developed its first **hybrid diesel-electric/battery locomotive** capable of recycling energy as stored power in onboard batteries<sup>6</sup>. It will feature a series of innovative batteries that will capture and store energy dissipated during dynamic braking. The energy stored in the batteries will reduce fuel consumption and smog-causing emissions by as much as 10 % compared with most of the freight locomotives in use today.

**(7)** Railway Technical Research Institute (RTRI) has studies underway to get a **fuel cell powered train** into service by about 2010. Hydrogen<sup>7</sup>-fuelled cells are being used for motorcars, buses, and lorries, but the rail project is the most ambitious application so far. Fuel cells are solid-state devices that directly convert energy of the fuel into electric power and can be easily replaced. They are based on electric-chemical reactions between hydrogen and oxygen leaving water as the only by-product, and are said to be efficient, quiet, and have zero emissions.

**(8)** The environmental consequences of today's energy policies are potentially catastrophic. Burning fossil fuels causes the global warming which may lead to the green house effect and acid rains, contributing to the death of large areas of forests in Europe. Air, water, soil are all harmed by pollution. Toxic heavy metals are also found in high concentrations in soils and vegetation in many places in Europe. The risks associated with nuclear energy are also great, as illustrated by the Chernobyl accident.



The issue of energy has two main aspects: type of energy used and amount of energy used. The answer lies partly in the development of renewable energy sources such as biomass, methane, sun, wind, waterfall and wave power. The other part of the solution lies in using less energy, getting more out of each unit of energy and applying improved environmentally friendly technologies.

<sup>1</sup> *Maglev* – потяг на магнітній підвісці, «маглев»

<sup>2</sup> *an overhead pickup* – струмоприймач

<sup>3</sup> *diesel-hydraulic locomotive* – локомотив з гідравлічною передачею

<sup>4</sup> *self-contained* – автономний

<sup>5</sup> *propelled* – що приводиться до дії

<sup>6</sup> *onboard batteries* – батареї, що розташовані у локомотиві (бортові)

<sup>7</sup> *hydrogen* – водень

### **Exercise 33. Answer the questions.**

1. What are the main sources to obtain power required? 2. What are the main types of locomotives mentioned in the text? 3. What was the main advantage of diesel and electric locomotives over steam ones? 4. When did electric and diesel locomotives start replacing steam ones? 5. When were diesel electric locomotives first introduced? 6. When did BR design a high-speed diesel electric locomotive? 7. What kind of locomotives uses the third rail? 8. What is the rarest type of all diesel locomotives? 9. Where can gas turbine-electric locomotives be applied? 10. What is the record speed for a Maglev? 11. What is the main advantage of a Maglev mentioned in the text? 12. Why is there a growing interest in alternative fuels for locomotives? 13. What will the first hybrid diesel-electric/battery locomotive feature? 14. How do fuel cells convert energy of the fuel into electric power? 15. What energy sources are preferable regarding ecological issues? 16. What consequences of over-consumption of fossil fuels can we experience at present?

### **Exercise 34. Replace the *italicised* words with the synonyms from the text.**

To find *a field* where power is not required, *at present*, *to generate* electricity, *the largest* consumer, *basic* types, *to turn* water into steam,

to be *scarcely* more than, *to design* a high-speed train, *extensively* used type of locomotive, *to haul* more load, *to absorb* energy.

**Exercise 35. Find the words from which the following derivatives are produced.**

Unthinkable, hardly, required, burning, generator, catastrophic, productive, incomplete, efficiency, powerful, cheaper, disadvantage, renewable, non-nuclear, externally, actuation, driverless, directly, electrically, reduction.

**Exercise 36. Fill in the gaps with the appropriate words from the box. Translate the sentences.**

*burns, a sphere, sources, to produce, developed,  
is connected, float, to convert*

1. One can hardly find ... where power is not required. 2. The power is obtained from two ... . 3. A steam locomotive ... coal and other materials. 4. This engine ... to the drive wheels. 5. One of the ways is ... power of steam into electricity. 6. British Rail ... a high-speed electric locomotive. 7. They use this fuel ... either steam or hot gases. 8. Maglev locomotives ... the train above the rail without the need of wheels.

**Exercise 37. Choose the appropriate words in brackets.**

1. Most of the power required is (*obtained, obtain, obtaining*) mainly from two sources 2. Electric locomotives are (*external, externally*) supplied with electric power. 3. The modern diesel-electric locomotive is an (*electric, electrical, electrically*) propelled unit. 4. The environmental consequences are (*potential, potentially, potent*) catastrophic.

**Exercise 38. Find antonyms among the following words.**

Advantage, ability, disadvantage, light, powerful, external, low, to lose, heavy, disability, powerless, to find, internal, high, cold, to cool, to heat, warm.

**Exercise 39. Match the words and their definition**

- |                |                                 |
|----------------|---------------------------------|
| 1) fossil fuel | a) capacity for performing work |
| 2) energy      | b) capable of being renewed     |

- |                 |   |
|-----------------|---|
| 3) population   | c) a flow of electric charge  |
| 4) to heat      | d) the circumstances and objects by which one is surrounded                   |
| 5) a train      | e) the whole number of people in a country                                    |
| 6) current      | f) a small compact engine   |
| 7) a motor      | g) a liquid or gas tending to flow  |
| 8) a wheel      | h) a circular metal frame that is capable of turning on an axle               |
| 9) fluid        | i) coal, oil, or natural gas formed in the earth from plant or animal remains |
| 10) environment | j) a line of railroad cars with or without a locomotive                       |
| 11) renewable   | k) to make warm or hot  |

**Exercise 40. Read the text and give the main idea of every passage.**

*Supplementary Text A*

**NEW ENERGY FROM OLD SOURCES**

The future belongs to renewable energy. Scientists and industry experts may disagree over how long the world's supply of oil and natural gas will last, but it will run out during the course of human development, possibly in the next couple of hundred years. Additionally, world prices of fuel force man to search for alternative sources of energy.

Alternative energy basically pertains to sources of energy other than those that involve the burning of fossil fuels or splitting of atoms. Nature has huge supplies which are environmentally friendly, renewable and can be used free of charge. There are a number of alternative energy forms causing very little or no harmful effects to nature at all. These are solar energy, wind energy, geothermal energy, hydroelectric energy, tidal energy, and biofuel.

*Wind power* is one of the oldest and cleanest forms of energy. Windmills have been around for almost 1500 years, but it was not imagined that wind power would become affordable enough to compete with fossil fuels. Nowadays wind power has become one of the most rapidly expanding industries constituting 1 % of global energy production and accounting for more than 50 % of global investment in renewable energy in 2009. It is also the most cost-

efficient renewable energy, especially with large installations using large turbines. Today wind can rival natural gas as a form of cheap energy. In fact, many utility services around the world offer wind-generated electricity at 2 to 3 cents per kWh. Germany, the US, Spain, Denmark, and India are among the world's leading nations in the acquisition of wind energy.

One of the newest trends in wind power is the construction of offshore wind farms, clusters of electricity-generating turbines erected in open-water areas with strong winds. Europe now has 17 wind farms spinning offshore.

*Solar energy* is a limitless resource. The idea of heating houses with the heat of the Sun has become popular in recent decades. Its major applications are also in power plants, space ships and in running cars. Solar power works by trapping the sun's rays into solar cells where this sunlight is then converted into electricity. Solar thermal panels are usually installed on the roof to convert sunlight to heat water or air. Today these solar units power everything from small homes to large office buildings. In developed countries using lots of air conditioners, it generates more electricity exactly when you need it – at times of peak electricity usage (you run your air conditioners more during the hottest, sunniest days). Once installed, solar systems can function for 25 or more years with little maintenance. Other recent advances include 'thin film' photovoltaic technology, a high-tech coating that converts any surface covered with the film into a solar-electric power source.

On the other hand, solar power is the most expensive, least efficient form of renewable energy – for now. Technological improvements are making solar-electric modules more cost-effective.

*Geothermal energy* uses hot water and steam deep within the earth's crust to spin steam turbines and produce power 24 hours a day, seven days a week. Geothermal resources are found in regions where there is volcanic activity, or where two tectonic plates meet. This is why places like Indonesia and the Philippines, which are situated on the Pacific 'Ring of Fire', or California, with its myriad fault lines and hot springs, are such strong markets for geothermal technology.

*Hydroelectric energy* is very old and well developed. It comes from the damming of rivers which helps in generating cheaper electricity.

*Wave power* uses the kinetic energy from ocean waves, tides and currents.

*Biofuel* can be made from organic matters such as plants, wood and animals. Its main ingredients are ethanol from plant materials and methane from animal wastes. Today, its main use is in the transportation industry as an alternative gasoline to run land vehicles.

With many countries signing the Kyoto Treaty, efforts to reduce pollutants and greenhouse gases are a primary focus. While renewable energy is generally more expensive, alternative power helps to reduce pollution, to conserve fossil fuels, thus preserving the delicate ecological balance of the planet. Combined with the use of recycling, the use of alternative energies will help ensure man's survival into the 21<sup>st</sup> century and beyond.

**Exercise 41. Answer the following questions.**

1. Why is it necessary to develop new energy sources? Give as many reasons as you only can.
2. What possible energy sources are mentioned?
3. What are the main characteristics of alternative energy?
4. How does the solar-heating system work?
5. Are windmills cost-efficient in modern industries? Prove your point of view.
6. Is biofuel a promising source of energy? Why?
7. Have you heard of the Kyoto Treaty? What does it declare? Did our country join it?

**Exercise 42**

- a) think about several possible alternative sources of energy, trying to compare them in the following aspects.**

<i>Energy Source</i>	<i>Application</i>	<i>Advantages</i>	<i>Disadvantages</i>
Ocean tides and currents			
Underground steam deposits			
Power of wind			
Heat of the Sun			

- b) browse the web to learn more about one of the alternative energy resources and its application in our life. Make a presentation in class.**

**Exercise 43. Do you know how to be more environmentally conscious? Is all rubbish the same to you? Do you believe that responsibility for saving planet Earth is in your hands? Read the following practical ideas and say which of them are easy to follow for you.**

1. Buy fresh food that doesn't need a lot of packaging.
2. Try to buy 'organic' fruit and vegetables from farmers who don't use chemicals.
3. Save as much water as possible.
4. Try to save paper. Also, buy and use recycled paper as often as possible.
5. Don't buy products made from rare or protected species.
6. Use public transport as often as possible.
7. Don't buy hamburgers or pizzas in plastic boxes, which contain Cold Fusion Components (CFC).
8. Don't leave on electric lights, TV, hi-fi, etc, if you're not using them.
9. Look for aerosols, which haven't got any CFCs in them.
10. Make sure that your family and friends use unleaded petrol in their cars.

**Exercise 44. Do you have nuclear power plants in your country? Discuss the advantages and disadvantages of building more nuclear power stations. Use the given ideas. Think about other possible pros and cons.**

*Advantages:* adequate supply of power;  
cleaner than the use of fossil fuels.

*Disadvantages:* danger of accidents;  
disposal of waste;  
possible harmful effects we still don't know about.

**Exercise 45. Speak on the harm done to the environment. Use the table.**

People Factories We Some companies Vehicles	dirty poison cut down damage fill burn	woods the air the water the soil	with	radioactive wastes. gasses and smoke. chemicals. fertilizers and pesticides. special equipment.
---	---	---	------	---

**Exercise 46. Read and translate the text. Summarize its main idea in a few sentences and report it in class. Add your own judgement of the problem having consulted Internet or professional rail**

**journals. Research how hybrid technologies are being developed on Ukrainian rail transport.**

*Supplementary Text B*

**FUEL CELLS SWITCH TRAINS ONTO A GREENER TRACK**

When you look at key trends in the transportation and energy sectors, one thing is becoming increasingly clear. New advancements in hybrid and battery technologies are changing the way we transport and power the world. In transportation, we are witnessing increased hybridization across the transportation infrastructure from big locomotives to small passenger cars. With continued fuel price volatility and heightened concerns about the environment, new breakthroughs in hybrid and battery technologies will promote cleaner transportation alternatives.

As well as the environmental benefits, fuel cell powered trains have other advantages. They are as quiet and vibration-free as electric trains, and so cause less disturbance than diesels. Yet unlike electric trains, they don't need any trackside infrastructure, such as overhead cables, and electricity substations.

Not only in Japan, but in the US and Europe too, the race is on to find ways of cutting emissions from trains by replacing diesel engines with less-polluting hydrogen fuel cells considered to be a green fuel of the future.

The world's first hydrogen-fuelled train to travel on a regular passenger track has been recently developed and tested on East Japan Railway. Powered by fuel cells running on hydrogen from its tanks and oxygen from the air, the train will emit only a few gentle puffs of steam as it travels. There is no direct discharge of carbon dioxide, nitrogen oxide or particulates. The power output of the system is low but it's still enough to propel the railcar at up to 80 km/h on a level track. As yet, though, it can only run for 80 kilometres before it needs refuelling. The company is not predicting when the railcar will be ready to enter regular passenger service.

Meanwhile, testing is now underway with 'Hayabusa', a much more powerful hybrid vehicle which Hitachi says is Europe's first battery-assisted diesel-electric power car reusing braking energy for acceleration. The key to the system is an onboard energy management

system, which forms an interface between the diesel engine and a high energy density lithium-ion battery bank which can be charged from either the engine or from energy regenerated during braking.

The hybrid train uses battery power alone to accelerate from a stand. The peak power available is 1 MW. The management system ensures the engine runs at its most efficient speed, with excess power not required for traction being used to charge the battery. The management system automatically draws on the battery if more power is needed at any point, perhaps on steep gradients or when accelerating. To reduce emissions the engine can be switched off when it is not needed, such as when standing in a station, and will start up as the train approaches 30 km/h. The key to reducing energy consumption is the use of the battery to store energy from braking, which would otherwise be lost.

There are still many hurdles to overcome before hydrogen trains are a regular sight on the world's railways, not least reducing the existing high cost of manufacturing fuel cells and developing a cheap way to generate hydrogen that does not itself contribute to carbon emissions. Despite these problems, trains could be simpler to switch over to hydrogen power than cars and trucks. There is more space for a fuel cell and a bulky hydrogen tank in a large railway locomotive than in a small car. Also, establishing a network of refuelling stations should be simpler for trains than for cars and trucks, as trains are routinely refuelled in just a few depots.

The current projects are focused on research for the future. Given the growing global interest in building hydrogen trains, it is likely the Japanese rail trials will be the first of many. The European Union is drafting plans to invest 245 million in a hydrogen and fuel cell research. A European consortium is planning to build prototype hydrogen trains to assess the feasibility of the technologies.

## CONVERSATIONAL PRACTICE

**Exercise 47. Match the words in the box with the sentences below.**

*Nothing much. Cheers. Sleep well. Excuse me. Not at all. Don't mention it. Thank you. How are you? Bye for now. Thanks, same to you.*



*Model: 'Hello, Sue!' – 'Hi, Jane. Nice to see you.'*

'\_\_\_\_\_' – 'Fine, thanks.'

'Thank you so much for helping.' – '\_\_\_\_\_.'

'Good night.' – '\_\_\_\_\_.'

'\_\_\_\_\_.' – 'Yes, can I help you?'

'Have a nice day.' – '\_\_\_\_\_.'

'Make yourself at home.' – '\_\_\_\_\_.'

'See you next week.' – '\_\_\_\_\_.'

'What are you doing this weekend?' – '\_\_\_\_\_.'

'Here's your beer.' – '\_\_\_\_\_.'

**Exercise 48. What would you say in the following situations? Compose dialogues.**

1. You are at the airport. You've lost one of your suitcases. Ask the policeman for help. 2. You are meeting a foreigner at an airport. You don't know him personally. One of the passengers looks like your guest. What would you say to know if he is the person you are looking for? 3. You want to show your visitor out of the airport to take the taxi, which is waiting by the entrance.

**WORD BUILDING**

Adverb Suffixes: *-ward(s), -wise*

Adverb Prefix: *a-*

Noun Suffixes: *-ure, -ture*

Verb Prefixes: *dis-, mis-, de-*

**Exercise 49**

**a) translate the words.**

Seaward, southward, backward, upward, downward, outward, onwards, towards, inward, forward, homeward.

**b) translate the words using the stem given:** *east, wind, west, in, north, sky, home, earth.*

На захід, в напрямку землі, на північ, до дому, в небо, по вітру, направлений усередину, на схід.

## Exercise 50

a) find the right translations for the following adverbs.

clockwise	кінцем уперед
anywise	в ширину
broadwise	жодним чином
crosswise	інакше
endwise	у відношенні до грошей
likewise	за часовою стрілкою
otherwise	стосовно кар'єри
nowise	хрест-навхрест
moneywise	подібно
careerwise	якимось чином

b) complete the sentences with the appropriate words from the table.

1. Screw the lid on ... . 2. Halve the potatoes ... . 3. Put your coat on, ... you'll get cold. 4. His father was the President then. It helped him ... . 5. They have inherited a fortune. So they're OK ... . 6. He voted for the change and he expected his colleagues to do ... .

## Exercise 51

a) point out the prefix in the following words and translate them:

Disadvantage, disloyal, disarrange, disappear, dishonesty, discover, dissimilar, disunion, disconnect, dislike, misunderstand, misspend, misdeed, mismanage, mislay, misbehave, misguide, mispronounce, misdirection, misinformation, misdoing, misuse.

b) express the following in one word using the prefixes:

**dis-**: not to agree, not to allow, not to obey, not to approve, to deprive of colour, to deprive of comfort, to cease to continue, to cease to use, to cease to credit;

**mis-**: to translate (interpret, state) in a wrong way, bad fortune, wrong conduct, wrong use.

c) translate the words, using the stems given. Consult the dictionary:

Приводити у безлад (*order*), не задовольняти (*satisfy*), не звертати уваги (*regard*), позбавляти спадщини (*inherit*), переставляти (*place*), звільняти (*charge*), неслухняний (*obedient*), нечесний (*honest*), нездатний (*able*), недолік (*advantage*), неправильно відрегульований (*adjusted*).

**Exercise 52. Translate the following pairs of verbs.**

moralize – demoralize	gasify – degasify
nationalize – denationalise	electrify – de-electrify
centralize – decentralize	segregate – desegregate
militarise – demilitarise	contaminate – decontaminate
rail – derail	list – delist
value – devalue	capitalize – decapitalize

**Exercise 53****a) find the right translation for the following adverbs.**

aboard	у великій кількості
abreast	на боці
aplenty	вздовж
apiece	на борту
aside	знову, ще раз
anew	на плаву
along	схожий
alone	пішки, у дії
afoot	врівень, на одній лінії
afloat	наодинці
alike	за штуку
ahead	вперед

**b) complete the sentences with the appropriate words from the table above.**

1. There were plans ... for a second attack.
2. They finally went ... the plane.
3. Could you put this cake ... for me.
4. There was food ... .
5. It's important to keep ... of the latest developments in computers.
6. We were driving ... Follyfoot Road.
7. The pictures are worth about €10,000 ... .
8. Somehow we kept the ship ... .
9. I was ready to leave everything behind and start ... in California.
10. The twins were dressed ... .
11. Our team was ... by three points.

## Exercise 54

a) complete the sentences with a preposition from the box to build a phrasal verb.

out out up in on off

1. Put ... something warm. It's cold today. 2. There's some ice-cream in the freezer. Can you get it ... ? 3. Why are your clothes on the floor? Please pick them ... . 4. I'm going to take the dog ... for a walk. 5. Turn ... the TV! It's time to go to sleep. 6. You should fill ... a customs declaration when crossing the border.

b) look at the position of the object when it is a pronoun in these sentences. Complete the sentences with phrasal verbs adding *up*, *away*, *off*, *in*, *after*.

Model: Your shoes are dirty. Take **them** off.

This jumper looks nice. Can I try **it** on?

1. We don't need all these lights on. Put ... . 2. Leave little Annie with me. I'll look ... . 3. I haven't got time to fill in this form. I'll fill ... later. 4. Are you still smoking? – No, I gave ... . 5. I have never liked this thing. I just threw ... .

## GRAMMAR REVISION

**Exercise 55. Change sentences from direct into indirect speech.**

1. Some specialists asked, 'Will high-speed traffic be in a wide use in the world?' 2. The engineers were asked, 'Is the railway to be transferred to electric traction?' 3. Many railway experts were interested, 'Will it be cheaper to use monorails instead of underground transport?' 4. Some specialists asked, 'Will the trains in the tubes attain enormous speeds?' 5. The workers asked, 'Has the power source already been installed in the vehicle?' 6. The designer asked, 'Will the loaded train be able to attain 350 kph?'

**Exercise 56. The sentences below were all addressed to you yesterday. How would you report them? Use *said*, *told*, or *asked*.**

Model: Debbie: I bought a cake. – Debbie said she'd bought a cake.

Waiter: Would you mind moving to another table?

Oliver: I'd love to do a parachute jump.

Shop assistant: What's your postcode?

*Linda:* Would you mind looking after my luggage?

*Policeman:* Does anyone else live in the house?

*Sarah:* I can drive a minibus.

*Landlord:* Don't park your car in the yard, ok?

*Tom:* Have you finished with the computer?

*Librarian:* Could you turn the music off, please?

*Louise:* Where are you going?

*Jack:* I've been dropped from the basketball team.

**Exercise 57. Supply some and any if it is necessary.**

1. Are there any more potatoes? – Yes, there are ... potatoes in the dish. 2. Have we got any sugar? – I expect we have. Yes, there's ... sugar in this bowl. 3. May I have ... more tea? – Yes, of course. 4. You won't find ... biscuits in that tin. 5. You need to earn ... money. 6. ... eggs are not nice to eat raw. 7. Would you like ... boiled cabbage? 8. I didn't get ... shoes at the sales. They were too expensive. 9. There are never ... taxis when you want one. 10. There isn't ... point at all in getting upset about it. 11. I hate ... bad news. 12. We can't do without ... bread. 13. Get ... meat and salad for the weekend. 14. Some people don't eat ... meat. 15. There isn't ... news of him.

**Exercise 58. Put in words like everyone, something, etc.**

*James:* Is ... here? Are we all ready?

*Louise:* There are only fourteen people here, not fifteen, so ... is missing.

*Nicola:* It's Gary. Has ... seen Gary?

*Rick:* I've already asked. ... has seen him ... . I'm afraid he's ... to be found.

*Nicola:* Well, he must be ... .

*Adam:* It's OK. He's just rung me on his mobile. He'll be here in ten minutes. He just had ... to do first.

*James:* OK, let's get ... loaded into the trailer, and then we'll be ready. And make sure all your stuff goes in. We don't want to leave ... behind.

**Exercise 59. Read the story and fill in the blanks with the best word or words.**

### **Travelling by train**

There are so many things you have to do when you (*journey, travel*). Always make sure your (*luggage, valise, coffer*) has (*a label, an etiquette*) on it!

If you're going (*with, by, via*) train, the (*first, first thing*) you have to do is to buy yourself (*a billet, a ticket, a card, an etiquette*). You usually have to stand in a (*queue, line, row, tail*) and it's easy to (*miss, lose, loose*) your train and then wait hours (*waiting, expecting, waiting for*) the next one!

You buy (*a single, an ordinary*) or return ticket, and then look for a (*wagon, carriage, car*) where you hope you will find a free (*seat, place, chair, space*).

At last, you can (*get into, enter into, enter, go in*) the train and settle down to enjoy the (*travel, voyage, journey, travels*). If you're lucky, the train (*leaves for, leaves from, leaves, lives*) the station (*on time, in time, to time*).

Sometimes (*a conductor, a driver, an inspector, a guide*) comes round to (*examine, interrogate, question, look*) your ticket, but usually you travel without interruption and can enjoy the (*ride, drive, flight, walk*). You can relax till (*it's, its, it has*) time for you to (*get off, go down, get down, descent*) when you arrive at your (*term, terminal, station, terminus*).

## UNIT 7

*Grammar: Gerund*

*Use of That*

*Modal Verbs Should, Would, Shall, Will, Need, Dare*

*Text: New Technologies on World Railways*

*Supplementary text A: Computer Crime*

*Supplementary text B: The Knowledge Society*

*Supplementary text C: World's First Train Tunnel Simulation Facility*

*Word Building: un-, in-, il-, im-, ir-, non-; -ly; -ize, -fy*

### READING RULES

<b>E, e</b>	[ə:]	у сполученнях <b>er, ear</b> + приголосний	term, heard
	[iə]	у сполученні <b>ee + r</b>	beer, deer
	[iə] [ɛə]	у сполученні <b>ea + r</b>	near, dear bear, tear
	[ju:]	перед <b>w</b>	knew, few
	[u:]	перед <b>w</b> з попереднім <b>r</b>	grew, drew

#### **Exercise 1. Read the following words:**

1) pearl, mercy, perm, permissibility, permit, heard, percent, perplex, persecutor, persist, person, nerve, perspective, perspire, search, earl, learn;

2) beard, clear, near, hear, beer, blear, dear, deer, deerstalking, fleer, gear, hearsay, jeer, ear, earmark, eerie, fear, fearless, imperial, inferior, sincere, queer, tear, mere, rear, sear, cereal, near;

3) dew, dewy, knew, hew, mew, mewl, newsprint, few, view, pew;

4) crew, flew, brew, brewery, drew, grew, screw, screwdriver.

**a + th, ss, s (with consonants)**

[ a:]

['dra:ft] draft	['kla:sp] clasp
['cra:ft] craft	['pa:st] past
['ba:θ] bath	['a:sk] ask
['fa:ðə] father	['fa:sn] fasten

**al + f, m**

[ a:]

['ha:f]	half
['ka:f]	calf
['a:mənd]	almond
['ka:m]	calm

## Exercise 2. Read and explain the reading rules.

Quite, quick, quest, quiz, quit, small, fall, tall, call, all, chalk, walk, talk, few, stew, news, write, wrest, wrist, wring, wreck, wrap, dry, wrong, angry, angle, high, right, bright, might, light, fight, reel, grim, sack, mule, bloom, butter, ugly, fuss, fly, cube, seep, stove, made, plate, mean, heat, pine, teach, shelf, bud, fume, laid, bay, tube, hard, term, bird, skirt, thirsty, icy, gent.

## Exercise 3. In the following groups of words three words rhyme. Find the odd one.

done	phone	won	son
would	should	good	blood
move	love	prove	groove
though	through	throw	sew
weak	break	ache	shake
flower	power	tower	lower
worth	birth	north	earth
hate	wait	weight	height
fear	near	pear	clear
share	prayer	mayor	layer

## GRAMMAR

### Gerund

(Герундій)

	<i>Active</i>	<i>Passive</i>
<i>Indefinite (Simple)</i>	writing	being written
<i>Perfect</i>	having written	having been written

*Герундій* – це неособова форма дієслова, що має властивості дієслова та іменника (віддієслівний іменник). Герундій називає дію як процес: **reading** – читання, **listening** – слухання.

Неперфектна форма виражає дію, одночасну з дією присудка; може відноситися до майбутнього або не залежати від часу.

*We intend **shipping** the goods in May.* – Ми сподіваємося відправити товари у травні (відноситься до майбутнього).

*He likes **being invited** by his friends.* – Він любить, коли його запрошують друзі (не залежить від часу).



*He sat without **turning** his head.* – Він сидів, не обертаючись (одночасна дія).

Перфектна форма виражає дію, що відбулася раніше дії присудка.

*Thank you for **having helped** me.* – Дякую, що допомогли мені.

Після прийменників *on, after* вживається неперфектний герундій.

***After talking** to you I always feel better.* – Після того, як я з тобою поговорю, я завжди почуваю себе краще.

### Функції герундія

Функції	Приклади
<b>Підмет</b>	<i><b>Smoking</b> is not allowed here.</i> – Курити тут не дозволено.
<b>Іменна частина присудка</b>	<i>His hobby is <b>driving</b> a car.</i> – Його хобі – керування машиною.
<b>Доповнення:</b> - пряме (після <i>begin, start, (dis)like, continue, prefer, hate, intend, can afford, need, remember, enjoy, mind, be busy, excuse, be worth etc.</i> ); - прийменникове (після <i>depend on, rely on, dream of, object to, blame for, thank for, be interested in, be surprised at, be responsible for, prevent from, result in, be engaged in, fear of, think of, be afraid of, be fond of, insist on, get used to, look forward to, feel like, cant't help etc.</i> )	<i><b>Excuse my interrupting</b> you.</i> – Пробачте, що втручаюсь. <i>They <b>began building</b> new houses here.</i> – Вони почали будувати тут нові дома.  <i>They <b>spoke about their travelling</b> to the North.</i> – Вони говорили про подорожування на північ. <i>I <b>look forward to receiving</b> your letter.</i> – Я з нетерпінням чекаю вашого листа. <i>You'll <b>get used to driving</b> on the left.</i> – Ви звикнете до лівостороннього руху.

<p><b>Обставина</b> (після прийменників <i>after, before, on, by, without, instead of, besides</i>)</p>	<p><i>After reading the letter I put it into the drawer.</i> – Після того, як я прочитав листа, я його відклав у шухляду.  <i>They ate <b>without talking</b>.</i> – Вони їли не розмовляючи.</p>
<p><b>Означення</b> (після абстрактних іменників <i>importance of, interest in, reason for, hope of, way of, experience in, opportunity of, idea of, chance of</i> перед означальним іменником)</p>	<p><i>What's your <b>idea of bringing up</b> children?</i> – Яка твоя думка про виховання дітей?  <i>She had come with <b>the intention of saying</b> something definite.</i> – Вона прийшла з наміром щось ясно висловити.  <i>You have always been in <b>the habit of giving</b> her playthings.</i> – Ви завжди маєте звичку давати їй іграшки.  <i><b>writing paper, dancing place</b></i></p>

Примітки: 1. Перед герундієм може стояти присвійний займенник або іменник у присвійному відмінку.

*I don't mind **your** going without me.*

*She was angry at **John's** saying these words.*

2. Після *need, want, require, be worth* вживається герундій у дійсному стані, незважаючи на пасивне значення.

*My shoes **need** repairing.*

#### **Exercise 4. Translate the sentences paying attention to the Gerund.**

1. *Reading* English technical journals is important for an engineer. 2. They finished *installing* the apparatus only on Saturday. 3. They began *making* the experiment in May. 4. After *failing* his examination in January he had to take it again in February. 5. After the meeting they discussed different ways of *improving* their work. 6. The organizers of the conference were informed of his *refusing* to take part in it. 7. We heard of the experiment *having started* last week. 8. He improved his report by *changing* the end. 9. New possibilities for *applying* atomic energy open up. 10. I am looking forward to *sending* my children to the country for the holidays. 11. I'm surprised at his *missing* lessons so often. 12. I'm surprised at your *having missed* so many lessons.

**Exercise 5. Complete the sentences with *-ing* forms of the following verbs:**

*answer, climb, drink, forget, hear, learn, lie, pay, say, ski, type, watch.*

1. ... too much alcohol is very bad for you. 2. I don't like ... bills. 3. He really enjoys ... his own voice. 4. What's wrong with ... in bed all day? 5. Her favourite sports are ... and ... mountains. 6. ... languages is hard work. 7. I hate ... goodbye. 8. ... is better than remembering. 9. ... animals can teach you a lot. 10. 'What's your job?' – '... the phone and ... letters.'

**Exercise 6. Make up sentences from the table.**

1. Are you interested		answering that child's questions.
2. Do you feel		changing her job, but I don't think she will.
3. Do you have time		coming to Greece with us?
4. He insisted		convincing the police that she was not a burglar.
5. He passed his exams		cooking.
6. How		disturbing you.
7. I apologize	about	eating.
8. I like walking	as well as	going out to a restaurant tonight?
9. I sometimes dream	at	having time to read all my books.
10. I'm fed up	besides	helping me?
11. I'm not capable	for	looking after the children?
12. I'm tired	in	moving to Canada.
13. She succeeded	in spite of	not doing any work.
14. She talked	instead of	paying for everything.
15. She's keen	like	playing football.
16. She's very good	of	seeing George next week.
17. Thank you	on	selling things.
18. We're excited	with	staying at home?
19. We're thinking	without	swimming and dancing.
20. Why don't you come out with us		telling me the truth.
21. You can't live		understanding this – it's too difficult.

**Exercise 7. Complete these sentences with one of the following expressions. Put the verb into the correct form.**

*go skiing, go shopping, go swimming, go sailing, go riding*

1. Barry lives by the sea and he's got a boat, so he often ... .
2. There's plenty of snow in the mountains so we'll be able to ... .
3. It was a very hot day, so we ... in the river.
4. Margaret likes horses. She often ... .
5. The shops are shut now. It's too late to ... .

**Exercise 8. Combine the sentences using the Gerund.**

*Model A: After he finished school, he worked at a plant. – After finishing school he worked at a plant.*

1. After they passed their exams, they went to the mountains.
2. Before he moved to this town he lived in Kiev.
3. After he wrote the letter, she went to the post-office.
4. Before you cross the street you must look to the left and then to the right.
5. I turned off the light before I left home.
6. We met him after we walked about two miles.

*Model B: She insisted that she should go to the library. – She insisted on going to the library.*

1. He insisted that he should show them the way.
2. He insisted that he should be shown the way.
3. They insisted that they should help me.
4. They insisted that they should be helped with their work.
5. I insisted that I should examine them in the afternoon.
6. I insisted that I should be examined first.

*Model C: When she plays, I enjoy it. – I enjoy her playing.*

1. When you quarrel, I hate it.
2. When you open the window, I don't mind it.
3. When they dance, I enjoy it.
4. When he gets an excellent mark, his parents are pleased with it.
5. If you make noise, I dislike it.
6. When you don't know the lesson, I am surprised at it.
7. If you pass your examination well, I'll be proud of it.

**Exercise 9. Translate into English.**

1. Пробачте, що я запізнився.
2. Я не сподіваюсь побачити його скоро.
3. Дякую вам за те, що показали нам дорогу до міста.
4. Я здивований, що ти пропустив так багато занять.
5. Мені дивно, що ви так часто запізнюєтесь.
6. Я проти того, щоб це питання обговорювали сьогодні.
7. Ми наполягаємо на тому, щоб цей

будинок було відремонтовано. 8. Вона пішла з дому, не вимкнувши телевізора. 9. Він пішов, не попрощавшись. 10. Я з нетерпінням чекаю того, що знов побачу мою подругу. 11. Мені не подобається ідея залишитися вдома. 12. Він захоплюється грою у футбол. 13. Цей факт не варто згадувати. 14. Ми були зайняті встановленням обладнання. 15. Одержавши добрі результати, вони закінчили експеримент. 16. Ти можеш покластися на те, що я усе зроблю вчасно. 17. Вона боїться залишитися вдома сама. 18. Зараз я не в настрої дискутувати. 19. Ви можете покращити свої знання, читаючи спеціальну літературу.

### Use of *That*

Вказівний займенник	<i>That is our house.</i> – <b>То</b> наш будинок.
Слово-замінник іменника в однині	<i>This house is much better than <b>that</b> built last year.</i> – Цей будинок значно кращий, ніж <b>той, що</b> був збудований минулого року.
Сполучник, який входить до підсилюючої конструкції <i>It is ... that</i>	<i>It is the ballast <b>that</b> supports the track structure.</i> – <b>Саме</b> баласт підтримує структуру колії.
Сполучне слово	<i>The main-line track is the track <b>that</b> carries a large volume of traffic.</i> – Магістральний шлях – це шлях, <b>який</b> здійснює великий обсяг перевезень.
Сполучник	<i>We know <b>that</b> the rails are made of steel.</i> – Ми знаємо, <b>що</b> рейки виготовлені зі сталі.

### Exercise 10. Translate the following sentences paying attention to the use of *that*.

1. One may say **that** the electronic computer is one of the most remarkable achievements of the 20<sup>th</sup> century. 2. **It is** a machine **that** can make long mathematical calculations and can store information put into it. 3. An electronic computer **that** is now in use is an integral part of the modern life. 4. The scientists are working hard to improve the existing machine and to develop a new one much faster and more

efficient than **that** we have today. 5. Some engineers think **that** today **it is** the rails **that** are a more important factor for increased speeds than the locomotives. 6. **It is** known **that** rails were first used many years ago. 7. On **that** track horses could draw more coal. 8. **It was** those mine railways **that** gave birth to the steam railroads. 9. It is of interest to note **that** those rails were introduced by Robert Stevens, the son of the American railroad pioneer.

**Exercise 11. Put in *this / that / these / those*.**

1. Why am I living in ... country? 2. Give me ... box from the table. 3. ... potatoes taste burnt! 4. What was ... noise? 5. Who are ... people over there? 6. Come ... way, please. 7. Isn't ... weather great? 8. Did you hear ... rain in the night? 9. Tell her to stop ... shouting. 10. ... was a nice meal – thanks. 11. Who said ... ? 12. Why did she marry ... idiot? 13. Do it ... way, not like ... .

**Modal Verbs *Shall / Should, Will / Would, Need, Dare***  
**Shall / Will**

Майбутні дії <i>Future Tense</i>	<i>She <b>will</b> be here in a couple of minutes.</i> <i>We <b>shall</b> need the money on the 15<sup>th</sup>.</i>
Впевненість <i>Certainty</i>	<i>There is somebody at the door. That <b>'ll</b> be the postman.</i> <i>Tomorrow <b>will</b> be cloudy, with some rain.</i>
Намір та рішучість <i>Willingness and Decisions</i>	<i>I really <b>will</b> stop smoking!</i> <i>Can somebody help me? – I <b>will</b>.</i> <i>The car <b>won't</b> start.</i>
Пропозиції, накази та запитання <i>Requests, Orders and Offers</i>	<i><b>Will</b> you send me the bill, please?</i> <i><b>Won't</b> you have some more wine?</i> <i><b>Will</b> you be quiet, please!</i> <i><b>Shall</b> I open the window?</i> <i><b>Shall</b> we go out for a meal?</i>
Типова поведінка <i>Typical Behaviour</i>	<i>She <b>will</b> sit talking to herself for hours.</i> <i>When you look at clouds they <b>will</b> often remind you of animals.</i>

**Exercise 14**

**a) make requests for the following situations.**

*Model: Will you please open the door for me?*

1) hold the door open for you; 2) dial a number for you; 3) translate a letter for you; 4) deliver some flowers for you.

**b) make offers for the following situations.**

*Model: Shall I carry that for you?*

1. An old lady clearly wants to put her large suitcase on the luggage rack. 2. A young woman is shivering and the window is open. 3. Your friend accidentally drops some sheets of paper on the floor.

**c) make suggestions to a friend for the following situations.**

*Model: Shall we go for a swim?*

1) driving to the coast; 2) having a meal out this evening; 3) travelling first class; 4) having a holiday in the Carpathians.

**Exercise 15. Work in pairs. You are discussing the coming holiday. Compose sentences using *shall we ...?* and give answers.**

*Model: where? – Where shall we go?*

seaside / mountains? – *Shall we go to the seaside or to the mountains?*

1) this country / abroad? 2) when? 3) how long for? 4) fly / train / drive? 5) hotel / camp? 6) stay in one place / travel around? 7) take Granny? 8) go with the Jacksons? 9) what do with the dogs?

**Exercise 16. Here are some laws of nature. Join the beginnings and the ends. Write a paragraph in which you paraphrase the laws, explain it through a series of supporting sentences, and make your own judgement about it. Feel free to agree or disagree with the idea.**

<i>BEGINNINGS</i>	<i>ENDS</i>
After you have bought something,	it will.
If anything can go wrong,	somebody will.
If there are two good TV shows,	they will both be at the same time.
If you explain so clearly that nobody can misunderstand,	will always move faster.
If you throw something away,	will fall asleep first.
No matter how much you do,	you will find it somewhere else cheaper.
The one who snores	you'll need it the whole day.
The other queue	you'll never do enough.

**Exercise 17. Which of the following uses of *will* indicate willingness, refusal, a promise, a threat or typical behaviour.**

1. I'll make sure John is informed. 2. Oil will float on water. 3. She won't listen, she's so stubborn. 4. Patrick will keep on asking stupid questions. 5. I'll take your calls for you while you're out. 6. Either I get the job or I'll leave the company. 7. Will you call him back when you've got a moment? 8. I've changed the battery but my mobile phone still won't work. 9. She will always be the first person to arrive on a Monday morning. 10. If you don't sign the new contract we'll have to move you to another post. 11. Will you put your name and company in the visitor's book, please?

**Should / Would**

Обов'язок <i>Obligation</i>	<i>Everybody <b>should</b> wear car seat belt.</i>
Умовні речення <i>Conditionals, Subjunctive</i>	<i>If I knew her name, I <b>would</b> tell you. It's important that she <b>should</b> talk to me.</i>
Запитання, пропозиції (менш категорично, ніж <i>will</i> та <i>shall</i> ) <i>Requests and Offers</i>	<i><b>Would</b> you open the window, please? <b>Would</b> you like tea, or <b>would</b> you prefer coffee? <b>Should</b> I change my job or stay where I am?</i>
Вірогідність <i>Probability</i>	<i>We're spending the winter in Florida. That <b>should</b> be nice.</i>
Узгодження часів <i>Sequence of Tenses</i>	<i>They asked what they <b>should</b> do. There was a chance that my letter <b>would</b> arrive in time.</i>
Повторні дії у минулому <i>Typical Behaviour in the Past</i>	<i>She <b>would</b> dust and iron, but she didn't like doing windows. The car <b>wouldn't</b> start again this morning.</i>



**Exercise 18. Make suggestions / invitations for the following situations.**

*Model: Would / Wouldn't you like to come with us?*

1. Your friend has nowhere to stay for the night. 2. You want your friend to join you for a meal. 3. You want your friend to come on an excursion. 4. You want your friends to have a holiday with you. 5. A friend has just come to see you in your flat. 6. There is a concert tonight and you are going with some friends. Invite them. 7. You are sitting in a crowded bus. There is an old lady standing.

**Exercise 19. Which do you think is better – must or should?**

1. You know, I think you ... take a holiday. 2. Tell Mark he ... tidy his room at once. 3. Visitors are reminded that they ... keep their bags with them. 4. I'm sorry, but you ... go. We don't want you here. 5. I really ... go on a diet. I'll start today! 6. I suppose I ... write to Aunt Rachel one of these days. 7. You absolutely ... check the tyres before you take the car out today. 8. All officers ... report to the Commanding Officer by midday. 9. You ... have your hair cut at least once a week. 10. I think men ... wear jackets and ties in restaurants.

**Exercise 20. Complete these sentences with should + infinitive of the following verbs: check, include, keep, listen, meet, plan, receive, refrigerate, and stay.**

1. You ... my reply. 2. This medicine ... in a cool place. 3. Here's someone you really ... . 4. If you're feeling ill, you ... at home today, if I were you. 5. To have got a better mark, you ... your answers more thoroughly. 6. According to the label, the jam ... after opening. 7. I think you ... to him. 8. As a scientist she ... the experiment more carefully. 9. The information you send ... details of courses taken at university.

**Need, Dare**

<b>Need</b>	<p><i>You needn't fill in a form. (You don't need to fill in a form.)</i> – Вам немає потреби заповнювати анкету.</p> <p><i>Do I need to pay now? (Need I pay now?)</i> – Мені треба заплатити зараз?</p> <p><i>The sofa needs cleaning. (= needs to be cleaned)</i> – Диван потребує чищення.</p>
-------------	--

<b>Dare</b>	<i>He dares to say what he thinks.</i> – Він відважується говорити те, що думає.
	<i>He dare not say what he thinks.</i> – Він не відважується говорити, що думає.
	<i>Dare she tell him?</i> – Чи відважиться вона сказати йому?

**Exercise 21. Complete these sentences with *needn't*, using the verbs: *come, worry, get, write, phone, ring, take, think, and try*.**

1. You ... up yet, because there's no school today. 2. He ... everything down. Just the phone number will do. 3. She ... and see me if she doesn't want to; I don't mind. 4. You ... about me. I'm fine. 5. You ... I care about you, because I don't. 6. Tell him he ... the bell; he can just walk straight in. 7. I'd like to see her today, but it ... very long. 8. Just come when you like, any time. You ... first. 9. You ... to explain. I'm not interested.

**Exercise 22. Write a sentence with *dare* so that it has a similar meaning.**

*Model: I'm too scared to go up the roof. – I daren't go up on the roof.*

1. No one has the courage to argue with the President. 2. We're afraid to go out after dark. 3. People were too frightened to resist the invaders. 4. Are you brave enough to step into the unknown? 5. You have no right to come in here without knocking!

**Exercise 23. Paraphrase the following using *should, shall, would, will, and need*.**

1. I advise you to buy this coat. 2. I don't advise you to go there tonight. 3. I think you must apologize to her. 4. I think you mustn't go there alone. 5. Do you want me to turn on the radio? 6. Do you want me to write this word on the blackboard? 7. Do you want me to lock the door? 8. It's a pity you broke it. 9. I think you had better read aloud.

**Exercise 24. Translate the sentences with modal verbs.**

1. Вам слід бути більш уважним. 2. Нам треба купити квитки заздалегідь. 3. Тобі не треба замикати дверей. 4. Ти б провідала її. 5. Вам слід би зачекати їх. 6. Як ти смієш бути таким брехливим? 7. Я не наважувалась тобі подзвонити. 8. Він мав зухвалість

прогулювати цілі місяці в інституті. 9. Я з великою охотою буду чекати на твій дзвінок. 10. Сідайте, будь ласка. 11. Вип'єте кави?

## READING AND DISCUSSION

### Active Vocabulary

**increasingly** – *adv* все більше і більше

**trend** – *n* напрям, тенденція

**brake** – *n* гальмо

**within** – *prep* в, у рамках чогось

**supersede** – *v* замінити, зміщати; *syn* *replace*

**coupling** – *n* зчеплення; *couple* – *v* зчеплювати; *n* пара

**chain** – *n* ланцюг

**smart train** – потяг, оснащений смарт-технологіями; *syn* *intelligent*; *smart card* – смарт-картка (платіжна картка з вбудованим мікропроцесором)

**profitability** – *n* прибутковість, рентабельність; *profit* – *n* прибуток; *v* одержувати прибуток; скористатися нагодою; *profitable* – *adj* прибутковий

**leap** – *n* стрибок; *leap year* – високосний рік

**establish** – *v* встановлювати, засновувати

**constantly** – *adj* постійно, увесь час; *constant* – *adj* постійний

**update** – *v* відновлювати

**protection** – *n* захист, охорона; *protect* – *v* захищати

**be underway** – проходити, здійснюватися

**throughout** – *adv* всюди, в усіх відношеннях; *through* – *prep* через, скрізь

**visible** – *adj* очевидний, явний, наочний

**interoperable** – *adj* експлуатаційно сумісний (інтероперабельний)

**be aimed at** – бути націленим на

**cross-border traffic** – рух, що перетинає кордон

**involve** – *v* включати до себе, передбачати, залучати, торкатися

**implement** – *v* використовувати, виконувати

**hardware** – *n* технічне забезпечення, обладнання; *software* – *n* програмне забезпечення

**flexible** – *adj* гнучкий

**interface** – *n* зв'язок; *syn* *link*, *communication*

**simulation** – *n* моделювання; *simulate* – *v* моделювати; *simulator* – *n* тренажер, макет, модель

**create** – *v* створювати; *creature* – *n* створення, істота

**multiple** – *adj* складний, численний, різноманітний, багатоскладовий

**trainee** – *n* практикант, стажер

**affect** – *v* впливати

**ever-expanding** – *adj* той, що постійно поширюється; *expand* – *v* розширяти(ся)

**present** – *v* представляти, являти собою, дарувати; *n* подарунок; *adj* – присутній, теперішній; *at present* – зараз

**concept** – *n* ідея, концепція

**pay** – *v* платити

**foreseeable** – *adj* передбачуваний; *foresee* – *v* передбачати

**pursuit** – *n* переслідування, погоня; *v* переслідувати

### IRREGULAR VERBS

<i>Infinitive</i>	<i>Simple Past</i>	<i>Past Participle</i>	<i>Translation</i>
buy	bought	bought	купувати
choose	chose	chosen	вибирати
cut	cut	cut	різати
find	found	found	знаходити
lead	led	led	вести, лідирувати
set	set	set	встановлювати
stand	stood	stood	стояти
throw	threw	thrown	кидати

**Exercise 25. Replace the italicized words with their synonyms from the active vocabulary.**

1. She always follows the latest *directions* in fashion.
2. The operating rules and signalling systems for *international* traffic have to be standardized.
3. He received *numerous* injuries in the car accident.
4. We hope to *enlarge* our business this year.
5. Fashion is changing *all the time*.
6. Out-dated equipment and installation must be *replaced* at once.
7. The book deals with the *link* between accountancy and law.
8. We need to *focus* public attention *on* this issue.
9. Some railways are slow to *introduce* smart card ticketing.
10. The robber ran off *followed* by the police.
11. Special *modelling* machines prepare the drivers for real operational practice.

**Exercise 26. Read and translate the following word combinations from the text.**

Human activity, electro-mechanical, computer technology, traditional signals, analogue and digital signals, radio-based signalling, real-time information, high-speed passenger service, transmission based signalling, cross-border transport, automatic route control, intelligent train control, open information environment, rail traffic control and safety systems, computer-integrated railroading, 'intelligent' dispatching and control centres, telematics-based command, the most advanced and innovative train control system.

**Exercise 27. Scan the text for the given abbreviations. What do they stand for?**

ROC, GSM-R, DB, ERTMS, TBS, CyberRail, ATP, EUDD, ETCS, R&D, CTC, ATO, TEN.

**Exercise 28. Pre-text discussion.**

1. Have new technologies changed our everyday lives? Give a few examples to support your standpoint. 2. What are the most important (revolutionary, recent) innovations you can remember? 3. What do the abbreviations *high tech*, *hi-fi*, *R&D* mean? 4. How have new technologies changed modern railways?

*Text*

**NEW TECHNOLOGIES ON WORLD RAILWAYS**

(1) Nowadays one can hardly find fields in human activity where electronic machines or devices are not used. Traffic control, sorting yard operations, compiling schedules, designing locomotives and many other hard and time-consuming jobs are being increasingly performed by computers.

(2) Perhaps, the most important trend in train control at present is the change of technology. Yesterday's technology was electro-mechanical; today electronic and computer technology dominates in rail traffic control and safety systems. Modern signalling is one important sphere of new technologies. Railroad signals (like the semaphore signal) are form of communication designed to inform the train crew of track conditions ahead and to instruct it how to operate

the train. Traditional signals, which can be recorded, are speed, time, and distance. A number of digital signals such as door opening, brake application, switch positions, lamps, etc, as well as some analogue signals such as current and catenary<sup>1</sup> voltage, are now added for recording. Recently the terms like radio-based signalling or telematics<sup>2</sup> have been added to traditional signalling terminology. We are on the brink of<sup>3</sup> a revolution which will transform signalling as we know it within the next decade.

(3) The automation of railway services is leading to computer-integrated railroading, in which radio plays a very important role. On modern railways there is a clear trend towards the so-called *railway operation control system (ROC)* based on radio transmission. ROC includes traffic safety and train control, which supersedes traditional signalling. It helps to coordinate the operation of high-speed passenger services and slower freight trains on the same tracks, as well as the use of double-track lines in both directions. With the help of ROC, there will soon be virtual or electronic coupling of trains into a chain driving at a high speed. Together with ‘smart’ trains and ‘intelligent’ dispatching and control centres, ROC will form a triangle<sup>4</sup> for improved profitability for the railways.

(4) A great leap forward in radio-based communications systems is *Transmission Based Signalling (TBS)*. The first systems are now being developed and installed, and undoubtedly TBS will become the preferred signalling technology for the world’s metro and mainline railways.

TBS has a number of essential advantages over conventional signalling. First of all, it eliminates the need for tracks-circuits<sup>5</sup>. Under TBS, trains establish their position through the use of the train equipment. Each train receives a movement authority<sup>6</sup> based on the speed of the train that is constantly updated by radio. This information is presented to the driver on a cab display or passed to an *Automatic Train Operation (ATO)* controller. Safety is also increased due to the use *Automatic Train Protection (ATP)*, which is a feature of TBS.

(5) Britain is one of the first countries to adopt TBS. Jubilee Line of London Underground is currently the largest metro project underway in Europe. It needs the most technically advanced and innovative train control and signalling system, which is why the London Underground

chose TBS. TBS is also being considered by railways throughout the world, from New York City Transit in the United States to metros in the Far East, and for many of the Trans European Network (TEN) routes throughout Europe.

(6) The second trend, which becomes visible, is increasing standardization. Within Europe, there exist 27 different signalling systems, five different types of electrification, different track and loading gauges, and different operating rules between national railways. It stands to reason<sup>7</sup>, that signalling and train control systems have to be interoperable to ensure the safe and smooth flow of rail transport. With this aim, the *European Rail Traffic Management System (ERTMS)* has been designed. ERTM consists of *European Train Control System (ETCS)* and *Global Systems for Mobile Communication for Railways (GSM-R)*. They are all aimed at ‘Europeanizing’ national signalling systems and improving cross-border traffic so that the driver will always receive the same signalling information regardless of which country he is operating at the time. As all major signalling companies are involved in the development of ERTMS, it will soon be a radio-signalling standard for the world. German Rail (DB) became the first railway in Europe to implement GSM-R – the new standard for digital train radio on the Cologne – Frankfurt high-speed line in 2002. Thus, DB is pioneering the technological transition from older analogue networks to the new generation of digital systems.

(7) Another highly-significant project for an interoperable railway system will be a standardized *European Driver’s Desk (EUDD)* designed for interoperable rail services across borders. The EUDD will improve safety and working conditions by replacing hardware controls with flexible software display functions. The new driver’s desk should also allow the introduction of new technologies, such as the further development of telematics-based control systems and Man-Machine-Interface.

(8) The electronic technique known as *simulation* creates virtual rail environment. Cab simulators have traditionally been applied only to driver training. The latest generation of multiple simulators can now be networked together to represent an ‘integrated railworld’ which is much more complex than a single train in isolation. Such integrated

simulators offer joint training for drivers, train controllers and operations control staff, all interacting in multidisciplinary teams. Using virtual reality theatres, a wider range of training scenarios can be provided. The trainees then can fully understand how their actions affect each other, which, in effect, helps to reduce human error in critical situations.

(9) New developments in information technology and ever-expanding Internet have changed the world and the way of presenting passenger information. *CyberRail* is a new multi-media concept providing real-time information for passengers throughout their journey from door-to-door, taking into account every mode of transport. Passengers, railway operators and other railway companies can freely transmit, collect, and process the information. Passengers receive personalized travel plans, and railway operators can offer services according to demand.

Electronic smart card ticketing and booking tickets on the Internet have become a regular thing for passengers. More and more countries are adopting smart cards with embedded chip instead of paper-based ticketing systems. Smart cards hold much more information than a magnetic stripe, and can be also used outside the mass transit systems for which they were designed, for instance, as ‘electronic purses’. From contactless cards reloaded via the Internet to virtual tickets on mobile phones, today’s technology has no limits.

(10) It is safe to say that investment in rail research is paid many times over. New technologies will transform railways in the foreseeable future. In this information-intensive age, the modernization of signalling and telecommunications is even more important than the pursuit of higher train speeds. Future railway technologies have to be highly effective, interoperable, safe, environmentally friendly and allow for rapid innovation in the railway system.

<sup>1</sup> *catenary* – контактний провід

<sup>2</sup> *telematics* – телематика, інтегровані системи, що поєднують засоби зв’язку та обчислювальну техніку

<sup>3</sup> *we are on the brink of* – ми на порозі, на грані

<sup>4</sup> *triangle* – трикутник

<sup>5</sup> *track circuit* – рейковий ланцюг

<sup>6</sup> *a movement authority* – шляхові інструкції

<sup>7</sup> *it stands to reason* – само собою зрозуміло



**Exercise 29. Answer the following questions.**

1. What operations are now transferred to machines? 2. What are the differences between yesterday's and today's technologies? 3. Why is signalling one of the most important spheres of up-to-date rail engineering? 4. What traditional signals can be recorded? 5. What digital and analogue signals have been added for recording recently? 6. What is ROC? Why does it supersede traditional signalling? 7. Where is Transmission Based Signalling applied? 8. What principal advantages of TBS do you know? 9. What feature of TBS helps to increase safety? 10. What does standardization on the European railways mean? 11. Why is it so vitally important? 12. What has been designed to 'Europeanize' national signalling systems? 13. What systems does ERTMS include? 14. Which country is pioneering the technological transition from older analogue networks to the new generation of digital systems? 15. What is the main goal for designing a standardized European Driver's Desk (EUDD)? 16. How do simulators assist in staff training? 17. What are the features of the latest simulators? 18. What are the latest developments in providing passenger information? 19. Where can smart cards be used? 20. What will future railway technologies be like?

**Exercise 30. Complete the sentences from the text with the following words.**

*supersede, leap, preferred, receives a movement authority, on the brink of, digital, real time, creates, trend, detect, systems, adding*

1. The most important ... in train control at present is the change of technology. 2. ROC includes traffic safety and train control, which ... traditional signalling. 3. The new driver's desk determines a Man-Machine Interface, thus ... to safety. 4. The dispatcher in the control centre can ... the operating status of each train in real time. 5. German Rail (DB) implemented the new standard for ... train radio. 6. We are ... a railway technological revolution. 7. By means of ROC ..., intelligent dispatching and control centres improve profitability for the railway. 8. Each train ... based on the speed of the train. 9. TBS will become the ... signalling technology for the world's metro. 10. CyberRail will provide passengers with ... information throughout their journey. 11. Transmission Based Signalling (TBS) is a great ...

forward in radio-based communications systems. 12. The electronic technique known as simulation ... virtual rail environment.

**Exercise 31. Fill in the table using the information from the text.**

<i>innovation</i>	<i>main characteristics</i>	<i>application</i>

**Exercise 32. Make up a story on one of the topics discussed in the text.**

1. Yesterday's and today's technologies in rail signalling and operation. 2. ROC is a type of advanced signalling system. 3. Standardization is a way to interoperate within European railway space. 4. TBS is a preferred radio signalling technology for the world's metros. 5. Simulation technique and virtual railway in staff training. 6. CyberRail is a new multi-media concept to provide information for passengers.

**Exercise 33. Basing on the logical connectors in the jumbled text below:**

- a) organize the following paragraphs into a text;
- b) suggest the title for the newly organized text;
- c) discuss it with your classmates.

*Text*

(1) The companies that made these products were proud of their goods. They wanted everyone to know that the products were as modern as possible. So, in all kinds of advertising, companies described their products as 'high tech'. Soon, everyone knew the expression.

(2) The opposite of 'high tech' is 'low tech'. As you might imagine, low tech describes a technology that is traditional, simple and easy to operate. A wooden plow pulled by oxen is low tech. So is a hand pump that lifts water from a well.

(3) High tech became a popular expression in the United States during the early 1980s. Because of improvements in technology, people could buy many new kinds of products in American stores. Products like small, powerful home computers, or low cost microwave ovens

for cooking food quickly, or modern music systems that use digital electronics systems of recording sounds.

(4) 'High tech' is the expression that describes very modern technology. High tech is just a shorter way of saying high technology. And high technology describes any invention, system or device that uses the newest ideas of science and engineering. What is high tech? A computer is high tech. So is a communication satellite. A modern manufacturing system is surely high tech.

**Exercise 34. Read the text without using a dictionary and write its summary in two or three sentences. Discuss it with your classmates. What are the most notorious computer crimes you have heard of lately?**

*Supplementary text A*  
**COMPUTER CRIME**

In many businesses, computers have largely replaced paperwork, because they are fast, flexible and do not make mistakes. As one banker said, 'unlike humans, computers never have a bad day'. And they are honest. Many banks advertise that their transactions are 'untouched by human hands' and therefore safe from human temptation. Obviously, computers have no reason to steal money. But they also have no conscience, and the growing number of computer crimes shows that they can be used to steal.

Computer criminals don't use guns. And even if they are caught, it is hard to punish them because there are no witnesses and often no evidence. A computer cannot remember who used it, it simply does what it is told. The head teller at a New York City bank used a computer to steal more than one and a half million dollars in just four years. No one noticed this theft because he moved money from one account to another. Each time a customer he had robbed asked questions about the balance in his account, the teller claimed a computer error, then replaced the missing money from someone else's account.

Some employees use the computer's power to get revenge on employers they consider unfair. Recently, a large insurance company in the USA fired its computer-tape librarian for reasons that involved

her personal rather than her professional life. She was given thirty day's notice. In those thirty days, she erased all the company's computerized records.

All computer criminals have been minor employees. Now police wonder if this is 'the tip of the iceberg'. One official said, 'I have a feeling that there is more crime out there than we are catching. What we are seeing now is all so poorly done. I wonder what the real experts are doing – the ones who really know how a computer works.'

**Exercise 35. Retell briefly the text using the following expressions:**

I titled the text ... because ... .

The text deals with ... .

The first (second, third, etc.) part deals with (tells us about, says that ...).

I think that this text discusses interesting (topical, urgent) issues because ... .

The text reviews the story ... .

It covers several interesting points concerning ... .

**Exercise 36**

**a) skim the text and decide which answer (A-C) best describes the overall topic.**

**A.** Education in the past and present.

**B.** Changes in work patterns and what they mean.

**C.** Education and work in developed and developing countries.

*Supplementary text B*

**THE KNOWLEDGE SOCIETY**

**(A)** A century ago, the overwhelming majority of people in developed countries worked with their hands: on farms, in domestic service, in small craft shops and in factories. There was not even a word for people who made their living other than by manual work. These days, the faster-growing group in the developed world are 'knowledge workers' – people whose jobs require formal and advanced schooling.

**(B)** At present, this term is widely used to describe people with considerable theoretical knowledge and learning: doctors, lawyers, teachers, accountants, chemical engineers. But the most striking

growth in the coming years will be in ‘knowledge technologists’: computer technicians, software designers, analysts in clinical labs, manufacturing technologists, and so on. These people are as much manual workers as they are knowledge workers; in fact, they usually spend far more time working with their hands than with their brains. But their manual work is based on a substantial amount of theoretical knowledge which can be acquired only through formal education. They are not, as a rule, much better paid than traditional skilled workers, but they see themselves as professionals. Just as unskilled manual workers in manufacturing were the dominant social and political force in the twentieth century, knowledge technologists are likely to become the dominant social – and perhaps also political – force over the next decades.

**(C)** Such workers have two main needs: formal education that enables them to enter knowledge work in the first place, and continuing education throughout their working lives to keep their knowledge up to date. For the old high-knowledge professionals such as doctors, clerics and lawyers, formal education has been available for many centuries. But for knowledge technologists, only a few countries so far provide systematic and organised preparation. Over the next few decades, educational institutions to prepare knowledge technologists will grow rapidly in all developed and emerging countries, just as new institutions to meet new requirements have always appeared in the past.

**(D)** What is different this time is the need for the continuing education of already well-trained and highly knowledgeable adults. Schooling traditionally stopped when work began. In the knowledge society it never stops. Continuing education of already highly educated adults will therefore become a big growth area in the next society. But most of it will be delivered in non-traditional ways, ranging from weekend seminars to online training programmes, and in any number of places, from a traditional university to the student’s home. The information, which is expected to have an enormous impact on education and on traditional schools and universities, will probably have an even greater effect on the continuing education of knowledge workers, allowing knowledge to spread near-instantly, and making it accessible to everyone.

**b) reading comprehension: choose the correct letter a, b, c or d.**

1. According to the writer, a hundred years ago in the developed world, manual workers:

- a) were mainly located in rural areas;
- b) were not provided with sufficient education;
- c) were the largest single group of workers;
- d) were the fastest growing group in society.

2. The writer suggests that the most significant difference between knowledge technologists and manual workers is:

- a) their educational background;
- b) the pay they can expect;
- c) their skill with their hands;
- d) their attitudes to society.

3. He predicts that in the coming years, knowledge technologists:

- a) will have access to the same educational facilities as professional people;
- b) will have more employment opportunities in educational institutions;
- c) will require increasing mobility in order to find suitable education;
- d) will be provided with appropriate education for their needs.

4. According to the writer, the most important change in education this century will be

- a) the way in which people learn;
- b) the sorts of things people learn about;
- c) the use people make of their education;
- d) the type of people who provide education.

**Exercise 37. How will innovative technologies transform railways in the near future? Give your project.**

**Exercise 38. Read and translate the text. Ask each other questions to highlight the main ideas of the text.**

### *Supplementary text C*

## **WORLD'S FIRST TRAIN TUNNEL SIMULATION FACILITY**

The new tunnel simulation facility at the German Aerospace Center (DLR) in Gottingen which enables the ride characteristics of high-speed trains to be tested with unprecedented realism is globally unique.

To make railway trains faster and more economical, their shape is decisively important. Two new research facilities at DLR are involved in developing the aerodynamically optimum shape for future rail vehicles. The tunnel simulation facility is the only one of its kind in the world, and scientists can use it to investigate the ride characteristics of scale-model trains at speeds of up to 400 kph. The other facility, for side wind investigations, is also unique. The investment in these two train research facilities amounted to more than three million Euro.

‘We want to conduct research into high-speed trains with more lightweight construction and higher standards of passenger comfort,’ explained DLR Director Prof. Ulrich Wagner at the opening ceremony in Gottingen in 2010. ‘We are developing the technologies for the trains of the future, and are demonstrating what lies within the bounds of technical feasibility.’

When these two new facilities enter service, Gottingen will become Europe’s leading research location for rail vehicle aerodynamics.

In the quest for an efficient method for accelerating model trains as rapidly as possible, the DLR researchers took a leaf out of the books of the Romans. In ancient times, they used catapults to fire arrows at their opponents.

In a similar way, this modern test facility, measuring more than 60 metres in length, catapults scale-model trains up to a speed of 400 kph. These trains are built to scales of between 1:20 to 1:100. A particularly critical moment is the point where a train enters a tunnel. The effect is akin to the piston moving inside an air pump. A pressure wave is created which can give rise to the same kind of explosive noise emissions as supersonic aircraft. The researchers in Gottingen aim to prevent this from happening.

High-speed trains encounter another kind of problem. At speeds of 300 kph, the front section of a double-decker train can start to lift in strong side winds, despite the fact that the train may weigh several hundred tons. The test facility constructed in Gottingen will be used to simulate the forces and pressures which side winds can exert on a train.

An interdisciplinary team comprising eight DLR institutes is working on the 'Next Generation Train' project to create the train of the future. DLR scientists are examining a large number of issues: how train speeds can be increased while at the same time halving energy consumption levels, how to make trains quieter, more comfortable and safer, how to optimize wear characteristics and lifecycle costs and how to build trains more cost-effectively.

### CONVERSATIONAL PRACTICE

**Exercise 39. Match a line in A with a line in B. Who is talking to whom? Where are the dialogues taking place?**

A	B
-Could you fill it up, please?	-Halves or pints?
-Could I have the bill, please?	-Not at all. It's very stuffy in here.
-It's a present. Do you think you could giftwrap it for me?	-One moment. I'll just look it up.
-Two lagers, please.	-Sure. Shall I check the oil as well?
-Can you tell me the code for Paris?	-I'm afraid the line's engaged at the moment. Do you want to hold?
-I'll give you a lift if you like.	-Certainly, sir. I'll bring it straight away.
-Would you mind opening the window?	-Yes, indeed. I'll just take the price off.
-Could I have extension 2387, please?	-That's great. Would you drop me at the station?

### WORD BUILDING

Adjective prefixes: <i>un-, in-, il-, im-, ir-, non-</i> Adverb suffixes: <i>-ly</i> Verb suffixes: <i>-ize, -fy</i>
--



## Exercise 40

a) translate the words paying attention to the negative prefixes *un-*, *in-* (*im-*, *ir-*, *il-*) and *non-*.

Uncomfortable, impossible, incorrect, unable, independent, inconvenient, improper, impermanent, irresponsible, non-existent, non-conductor, non-standard, unfair, unjust, untrue, uncertain, unclear, unconcerned, unsuitable, uncultured, uncover, unfasten, unfix, non-resistance, non-durable, non-provided, non-governmental, non-essential, irresistible, indelicate, illegible, immoral, incomparable, infrequent, illiterate, immovable.

b) express the ideas with only one word using the appropriate negative prefixes.

**un-:** not able, not seen, not lawful, not well, not intentional, not explored, not selfish, that cannot be forgotten, that cannot be changed, that cannot be mentioned, that cannot be recognized, that cannot be thought of, that cannot be believed, that cannot be achieved;

**in- (il-, im-, ir-):** that cannot be comprehended, that cannot be conceived, that cannot be approached, that cannot be exhausted, that lacks logic, that lacks resolution, that lacks sanity, that lacks formality.

c) translate the following verbs using the stems given.

**un-:** виймати пробку (*cork*), відмикати (*lock*), викривати (*mask*), знімати кришку (*cover*), відколювати (*pin*), некритичний (*critical*), нестійкий (*steady*), неохайний (*tidy*), небезпечний (*safe*), недійсний (*real*), недосяжний (*achievable*), нечестлюбний (*ambitions*), несхвалений (*approved*);

**in- (il-, im-, ir-):** несором'язливий (*modest*), нелогічний (*logical*), нетвердий (*firm*), непристойний (*decent*), нерішучий (*resolute*), неправильний (*correct*), незвичайний (*regular*), невизначний (*expressive*), нелегальний (*legal*).

**Exercise 41. Consult the dictionary and find out the difference between the following pairs of words.**

Non-human – inhuman, non-moral – immoral, non-logical – illogical, non-natural – unnatural.

**Exercise 42. Translate the following words and define the root word the suffix is added to:**

- a) slowly, readily, softly, attentively, weakly, strongly, comfortably, boldly, heavily, carefully, hastily, skilfully, practically, theoretically, icily, regularly, tactfully, solemnly, evenly, finally, attentively, closely, effectively, strongly;
- b) economize, centralize, mechanize, mineralise, hospitalise, specialize, localize, particularize, generalize, standardize, naturalize, patronize;
- c) beautify, simplify, glorify, purify, classify, horrify, falsify, personify, terrify, certify, intensify, justify, electrify.

**GRAMMAR REVISION**

**Exercise 43. Open the brackets, using verbs in the appropriate tense.**

1. We (*bring*) a lot of berries from the wood. Now we shall make jam.  
 2. Look! Jane (*swim*) across the river. 3. What you (*do*) at six o'clock yesterday?  
 4. You ever (*see*) the Pyramids? 5. I (*go*) to the Caucasus two years ago.  
 6. We (*go*) to school every day. 7. Nick (*do*) his homework by seven o'clock yesterday.  
 8. You (*help*) your father tomorrow? 9. When Nick (*come*) home yesterday his mother (*return*) and (*cook*) dinner in the kitchen.  
 10. When Mr and Mrs Smith (*arrive*) home, they (*discover*) that someone (*break*) into their house. Their video recorder and television (*disappear*). They (*not know*) what they (*do*) to deserve this bad luck.

**Exercise 44. Fill in with the appropriate past form.**

	<i>Indefinite</i>	<i>Continuous</i>	<i>Perfect</i>	<i>Perfect Continuous</i>
<i>Past</i>	I took	I was taking	I had taken	I had been taking

In 1894 a steamship (*sail*) across the Atlantic Ocean from England to America. The sun (*shine*) and a gentle breeze (*blow*). The ship (*sail*) for three weeks and was halfway to its destination – New York. The passengers (*relax*) on deck when suddenly they (*hear*) a loud bang. They all (*jump*) up, (*run*) to the edge of the boat and (*look*) over the side. To their horror they saw that they (*hit*) some hard object which (*tear*) a hole in the side of the ship. Water (*pour*) into the steamship at

an alarming speed. Fortunately another ship arrived half an hour later, just in time to save everyone on board.

**Exercise 45. Read the true story and then write the questions.**

A couple called Michael and Kate, who lived in Hereford in England, booked a holiday using the Internet. They thought they were going to Gerona in Spain. When they arrived after their flight, they were puzzled because they saw Italian flags everywhere. When a bus driver refused their pesetas, they realized something was wrong. Michael and Kate only spoke English, so they asked another British couple for help. That was when they discovered that they were in Genoa in Italy. Their mistake was that they had clicked the wrong box.

**Questions**

**Answers**

*What were the names of the two people?*

*Michael and Kate.*

- |                   |                                     |
|-------------------|-------------------------------------|
| 1. _____ live?    | In Hereford.                        |
| 2. _____ holiday? | They used the Internet.             |
| 3. _____ ?        | To Gerona.                          |
| 4. _____ ?        | They flew.                          |
| 5. _____ ?        | Because of all the Italian flags.   |
| 6. _____ ?        | When someone refused their pesetas. |
| 7. _____ ?        | Another British couple.             |
| 8. _____ ?        | They told them they were in Italy.  |
| 9. _____ ?        | The wrong one.                      |

## UNIT 8

*Grammar:* Infinitive

Attributive Groups

*Text:* High Speed Rail Network

*Supplementary texts A:* High-Speed Trains versus Automobiles and Airplanes

*Supplementary texts B:* What is Maglev?

*Supplementary texts C:* Russian First High Speed Train Sapsan Enters Service

*Word Building:* Conversion, Compound Words

### READING RULES

<b>I, i</b>	<b>[ai]</b>	у відкритому складі	five, pine <i>but</i> give ['giv], live ['liv]
	<b>[ai]</b>	перед <b>nd, ld, gh</b>	kind, mild, light
	<b>[i]</b>	у закритому складі	did
	<b>[i:]</b>	у сполученнях <b>ie</b> з наступною приголосною	field, <i>but:</i> friend [frend]
	<b>[ə:]</b>	перед <b>r</b> або <b>r + приголосна</b>	sir, first
	<b>['aiə]</b>	перед <b>r + голосна</b>	fire, tired

#### **Exercise 1. Read the following words:**

**a)** mine, side, bride, like, kite, while, white, Friday, write, nice, crime, mile, tie, exercise, slide, surprise, precise, title, silence, microchip;

**b)** bit, pit, picture, sincere, resist, cubic, width, fix, mixture, ill, still, different, difficult, since, simple, middle, tilt, timber, signify;

**c)** knight, fight, bright, tonight, mind, find, wild, sign, might, right, sight, blind, child, kind, tights;

**d)** third, birth, sir, bird, fir, virtual, virgin, shirt, skirt, mirth, irk, girl, firm, firth, dirty, circus, circulate, birch;

**e)** retire, require, shire, admire, wire, tire, sire, mire, ire, hire, dire, tiresome, entire, desire;

**f)** believe, brief, chief, field, grief, grievance, grieve, mischief, niece, piece, priest, siege, yield, achieve, diesel.

## Exercise 2. Read the following words and explain reading rules.

Term, first, stern, curl, herb, want, wash, was, watch, watt, whale, wheat, whether, which, whip, warn, whole, why, fired, bunch, pinch, rice, chest, lick, sly, pace, lunch, rib, luck, cry, chat, shy, chill, sky, spine, spider, maze, leer, beer, peer, team, fee, bee, air, fair, hair, stairs, pair, Spain, faint, care, fare, mare, stare, bare, rare, pure, cure, during, fire, shire, here, mere, our, flour, sour, world, worm, worship, word, worthy.

## GRAMMAR

### Infinitive

*Інфінітив* – неозначена форма дієслова, що тільки називає дію, не вказуючи особи, та відповідає на питання *що робити, що зробити*: **to write** – писати, **to come** – приїжджати, **not to understand** – не розуміти, **not to buy** – не купувати.

### Форми інфінітива

	Active	Passive
Indefinite	<i>to write</i>	<i>to be written</i>
Continuous	<i>to be writing</i>	
Perfect	<i>to have written</i>	<i>to have been written</i>
Perfect Continuous	<i>to have been writing</i>	

Indefinite Infinitive означає дію, одночасну або майбутню до дії присудка.

*I am sorry to hear it.* – Мені прикро чути це.

*She likes to be helped.* – Вона любить, коли їй допомагають.

*I hope to see you on Monday.* – Я сподіваюсь побачитися з вами в понеділок.

Continuous Infinitive виражає тривалу дію, одночасну з дією присудка.

*It was pleasant to be driving a car again.* – Приємно було знову керувати автомобілем.

Perfect Infinitive виражає дію, що трапилася перед дією присудка.

*I am pleased to have done something.* – Я задоволений, що дещо зробив.

Perfect Continuous Infinitive виражає дію, що тривала протягом певного часу перед дією, що виражена присудком.

*I am happy to have been living in London for 25 years.* – Я щасливий, що 25 років мешкаю (мешкав) у Лондоні.

### Функції інфінітива

Підмет	<i>To walk is useful for everybody.</i> – Ходити пішки корисно для кожного.
Частина складного присудка	<i>The only thing left was to sit and wait until someone came.</i> – Єдине, що залишилось, – це сидіти і чекати, поки хтось прийде. <i>I want to paint.</i> – Я хочу малювати. <i>His house was not easy to find.</i> – Його будинок нелегко було знайти.
Додаток	<i>He asked me to wait.</i> – Він попросив мене зачекати. <i>He is difficult to understand.</i> – Його важко зрозуміти.
Означення	<i>Suddenly she felt the need to speak.</i> – Раптом вона відчула потребу говорити. <i>The material to be used for this purpose will be waterproof.</i> – Матеріал, який буде використовуватися для цього, буде водонепроникний. <i>He is the only one to be trusted.</i> – Він єдиний, кому можна довіряти.
Обставина мети	<i>I have come here to meet her.</i> – Я прийшов сюди, щоб зустрітися з нею. <i>To earn a living, he became a salesman.</i> – Щоб заробити на прожиття, він став продавцем.

Примітка – інфінітив без частки *to* вживається:

1) після модальних дієслів та зворотів: *must, can, could, may, might, need, shall, should, will, would, needn't, had better, would rather, would sooner.*

*You must do it at once.* – Ти повинен це зробити негайно.

*You had better go there tomorrow.* – Ти б краще пішов туди завтра.

*I would rather not tell them about it.* – Мені б краще не розповідати їм про це (= я б не хотів розповідати їм про це);

2) після дієслів *make* (примушувати), *let* (дозволяти), іноді *help* (допомагати) та вислову *why not ... ?*

*He made me read this book.* – Він примусив мене читати цю книгу.

*I let him go.* – Я дозволив йому іти.

*Help me do it.* – Допоможи мені це зробити.

*Why not give him socks for Christmas?* – Чому б не подарувати йому шкарпетки на Різдво?

**Exercise 3. Make up as many sentences as you can from each table.**

I	am	glad happy pleased sorry	to meet you.
He	is		to hear it.
She	are		to be late.
We	was		to have missed the train.
You	were		not to have been informed about it.
They	will be		to be given this chance.
I	want would like hate		to tell you everything. to be troubled when I work. to play basketball. to be visited when I am ill. to be sent there.

**Exercise 4. Translate the following sentences and word combinations.**

1. To send the letter to inform them; the house to be built; to build the road to connect two towns; the story to listen to; the question to be discussed; the car to be repaired; the test to be carried out.

2. I am happy to help you. I am glad to have helped him. He was glad to have been helped. I am glad to be helping them. I am glad to be helped.

**Exercise 5. Translate the sentences defining the function of the Infinitive.**

1. They were overjoyed *to take part* in our expedition. 2. She wanted *to be answered* at once. 3. He was delighted *to be working* with the famous scientist. 4. It's very difficult *to drive* a car in a big city. 5. Water may be used *to drive* dynamos, which generate electricity.

6. Sputniks do not need any additional energy *to move* along their orbit. 7. *To extend* the main street they had *to destroy* some old buildings. 8. The workers will use powerful machinery *to assemble* these huge units. 9. In this area there are no monuments *to speak of*. 10. Another reason *to consider* is the absence of necessary facilities for the experiment. 11. He was the first *to come*. 12. She made me *believe* her. 13. Let me *go*.

**Exercise 6. Fill in the particle *to* where necessary.**

1. Help me ... carry this bag. 2. My son asked me ... let him ... go to the theatre. 3. I must ... go to the country. 4. It cannot ... be done at once. 5. She asked me ... read the letter carefully and ... write an answer. 6. The man told me not ... walk on the grass. 7. Let me ... help you with your work. 8. We had better ... stop ... rest a little. 9. I don't know what ... do. 10. You must ... make him ... practice an hour a day. 11. I would rather ... stay at home.

**Exercise 7. Paraphrase the following according to the model.**

*Model:* The stone was too heavy. I couldn't lift it. – *The stone was too heavy for me to lift it.*

1. The text is too difficult. The students can't translate it. 2. The car is too expensive. I can't buy it. 3. The story is easy enough. I can read it without a dictionary. 4. The weather was too bad. We couldn't go to the forest. 5. The coat is too long. She can't wear it. 6. Their speech is rather quick. I can't understand it. 7. The train's speed is too high. It can't stop immediately.

**Exercise 8. Combine two sentences as in the model.**

*Model:* We helped him. We are happy about it. – *We are happy to have helped him.*

1. I am going to Paris. I am happy about it. 2. I am spending my holidays in the Alps. I am happy about it. 3. I live in this city. I am happy about it. 4. I know this man. I am happy about it. 5. I am not working there now. I am sorry about it. 6. I have not seen this film. I am sorry about it. 7. We are taught English. We are glad of it. 8. I was not informed of it. I am sorry about it. 9. I am not allowed to go there. I am sorry about it. 10. She wasn't invited to the evening party. She is sorry about it.



**Exercise 9. Rewrite these sentences beginning with the words in brackets.**

*Model:* He'd like to buy a car. (*He can't afford it*) – *He can't afford to buy a car.*

1. I didn't pass my driving test. (*I failed*) 2. He'll pay for all of us. (*He's offering*) 3. Can you move the desk on your own? (*Can you manage*) 4. He wants to join the army. (*He's just applied*) 5. Apologize to her? (*I refuse*)

**Exercise 10. Put in the correct forms of the Infinitive.**

**The Brave Old Lady and the Hopeless Crook<sup>1</sup>**

Mrs Johns, a 75-year-old widow, woke up with a start. Peering into the darkness, she was astonished (*see*) a man in her room. It was easy (*see*) he was a burglar<sup>2</sup>. At first, she was too afraid (*move*). Then she plucked up<sup>3</sup> her courage and said, 'We must (*talk*) about this over a cup of tea. Would you be so kind (*help*) me downstairs?' To her surprise, the man meekly<sup>4</sup> obeyed. He was eager (*help*) and anxious (*please*) the old lady. He prepared the tea and said he was sorry (*have disturbed*) her. He was too frightened (*run away*). After a cup of tea, he said he would be glad (*give*) Mrs Johns his name and address and left empty-handed. Of course, Mrs Johns informed the police, who commended her for her bravery. Later, during the trial, the judge said it was his duty (*send*) the man to prison, describing him as the most incompetent burglar he had ever met!

<sup>1</sup>*crook* – шахрай

<sup>2</sup>*burglar* – зломщик, грабіжник

<sup>3</sup>*pluck up one's courage* – набратися хоробрості

<sup>4</sup>*meekly* – покірливо

Дієслова, після яких вживається інфінітив	Дієслова, після яких вживається герундій
<i>agree, dare, decide, expect, fail, happen, hope, manage, mean, offer, prepare, pretend, promise, refuse, seem, wish, choose, forget, need, help, try, want, would like</i>	<i>avoid, can't help, deny, enjoy, feel like, finish, give up, hate, imagine, keep (on), mind, miss, postpone, practise, risk, stop, spend time, (can't) stand, suggest</i>

### Exercise 11. Put in the correct forms of the verbs.

1. I can't help (*admire*) her. She looks really beautiful. 2. We decided (*stay*) at home. 3. We expect (*hear*) from Ann soon. 4. Would you like (*go*) out tonight? 5. I don't feel like (*cook*). 6. When do you finish (*study*)? 7. I've given up (*smoke*). 8. Imagine (*be*) married to her! 9. I managed (*find*) a taxi. 10. Would you mind (*pass*) the bread? 11. I missed (*see*) the beginning of the film. 12. She pretended (*be*) ill. 13. I suggest (*call*) the doctor at once. 14. He spends ages (*talk*) on the phone. 15. I want (*see*) the manager. 16. Do you enjoy (*watch*) football?

### Exercise 12. Translate the sentences, using the Infinitive.

1. Вона щаслива, що вчилась у цьому інституті. 2. Мені незручно, що турбую вас. 3. Він буде радий, що поїхав туди. 4. Я радий запросити вас на вечір. 5. Я радий, що мене послали на цю конференцію. 6. Я хочу послати їй телеграму. 7. Дівчинка любить розповідати казки. 8. Забути цей день було неможливо. 9. Допомогти йому тепер – означає врятувати його. 10. Її мета – стати професіоналом своєї справи. 11. Наше завдання полягало в тому, щоб закінчити роботу до 5 грудня. 12. Вони приїхали в Лондон, щоб взяти участь у студентській конференції. 13. Завтра ми поїдемо в аеропорт зустрічати наших колег. 14. Щоб вивчити мову, ви повинні якомога більше читати. 15. Погода була надто гарна, щоб залишатися вдома. 16. Завдання було надто складним, щоб виконати його за годину. 17. В цьому тексті надто багато нових слів, щоб зрозуміти його без словника.

### Attributive Group

(Група означень)

У функції означення можливе використання як прикметників, так і іменників. Ключовим позначеним словом у такій низці іменників є останній іменник.

Артикль	Іменник у ролі означення	Позначений іменник
The	land	<b>transport</b>
The	land transport	<b>improvement</b>
The	land transport improvement	<b>problem</b>

*life test* – випробування на строк праці

*labour cost* – витрати на робочу силу

*safety standard* – стандарт, який встановлює правила техніки безпеки

*College Science Improvement Program* – Програма вдосконалення наукової роботи в коледжах (США)

*emergency snow clearing* – термінове розчищення снігових заметів

*rail transport movement table* – графік руху залізничного транспорту

**Exercise 13. Find the headword of the word combinations and translate them.**

Bathroom door, winter jacket, evening school, school evening, lunch basket, oil output, the shoe factory, the lake shore, world disarmament conference, railway duty train dispatcher, railway track maintenance, information control systems, flight control equipment, traffic flow density, school bus service, the research program result, the traffic speed increase, the New York region newspaper ad, the temperature limit determination, the railway bridge reconstruction, the household goods sale, the London underground extension project, the household goods store, the steam engine invention, the energy accumulation process, the wheel invention, the modern house ventilation facilities, the deep sea current measuring device, the car speed calculation, the high quality concrete.

**Exercise 14. Translate the word expressions using nouns.**

Кам'яна стіна, залізний міст, торгівля нафтою, ринок бавовни, цукрові плантації, ціни внутрішнього ринку, зниження цін на м'ясо, монета в десять центів, міська рада, студентський гуртожиток, заводська лабораторія випробування двигунів.

## READING AND DISCUSSION

### Active Vocabulary

**desirable** – *adj* бажаний; *desire* – *v* бажати; *n* бажання

**outdated** – *adj* застарілий

**pivotal** [*'pivətl*] – *adj* центральний, основний, поворотний

**bullet train** – швидкісний потяг витягнутої форми («поїзд-куля»)

**pave the way** – готувати основу, прокладати шлях; *pavement* – *n* тротуар, мостова

**sweep** – *v* мести, нестися, мчатися, охоплювати

**upgrade** – *v* удосконалювати, поліпшувати; *n* – підйом  
**be in the vanguard** – бути в авангарді, бути першим  
**R&D (research and development)** – дослідження та розвиток  
**liken to** – *v* порівнювати з; *syn compare*  
**guided** – *pp* той, яким керують, якого ведуть; *guide* – *n* провідник, керівництво; *v* вести, регулювати  
**remain** – *v* залишатися  
**Duplex double decker** – двоповерховий поїзд *Duplex*  
**master** – *v* оволодівати, досягати  
**gradually** – *adv* поступово  
**commence** – *v* починати; *syn begin, start*  
**immediately** – *adv* миттєво, відразу  
**share** – *n* частка, частина; *v* ділити, розділяти, брати участь  
**impose** – *v* встановлювати, накладати  
**axis** – *n* вісь  
**be concerned with** – бути причетним до, займатися; *concern* – *v* торкатися, відноситися  
**government** – *n* керівництво, уряд; *govern* – *v* керувати  
**agreement** – *n* угода, договір  
**goal** – *n* мета, задача; *syn aim, target*  
**deploy** – *v* застосовувати; *deployment* – *n* використання, застосування  
**tilting train** – потяг з нахиленим кузовом; *tilt on curves* – нахилитись на кривих  
**undertake** – *v* розпочинати, братися за  
**combat** – *v* битися, змагатися, долати  
**influence** – *v* впливати; *n* вплив  
**state-of-the-art** – *adj* сучасний  
**shuttle service** – регулярне (човникове) транспортне обслуговування між двома пунктами  
**sophisticated** – *adj* складний, витончений, вдосконалений  
**carrier** – *n* оператор, перевізник  
**convenient** – *adj* зручний  
**attractive** – *adj* привабливий; *attract* – *v* притягувати, приваблювати  
**benefit** – *n* користь, вигода, прибуток, допомога; *v* здобувати користь  
**reserve** – *v* зберігати, резервувати  
**ride quality** – ходова характеристика  
**double-wing** – *adj* двокрилий

**distribute** – *v* розподіляти

**imply** – *v* припускати, мати на увазі

### IRREGULAR VERBS

<i>Infinitive</i>	<i>Part Indefinite</i>	<i>Past Participle</i>	<i>Translation</i>
bend	bent	bent	гнутися
fly	flew	flown	літати
learn	learned, learnt	learned, learnt	вивчати
speed	speeded, sped	speeded, sped	прискорювати
rise	rose	risen	піднімати
ride	rode	ridden	їздити
sit	sat	sat	сидіти
win	won	won	вигравати

**Exercise 15. Find the synonyms from active vocabulary for the words in *italic*.**

*Old rolling stock; to tilt on bends; to lay the ground for new technologies; passenger forwarder; the aim of R&D department; the usage of signalling and operation practices; the focal point of rail development; to start a new line; modern equipment; to overcome gravitation forces; to wish changes; can be compared with aircraft; a directed missile; rail's part in the transportation market; to deal with the latest developments in radio communication; to have an impact on his behaviour; to draw tourists from all over the world.*

**Exercise 16. Find synonyms.**

To begin, to direct, state-of-the-art, immediately, to liken, a journey, a trip, to master, to deploy, to tilt, to enlarge, to commence, sophisticated, to use, a way, agreement, to guide, to manage, a route, modern, currently, instantly, contract, to lean, to expand, presently, to compare, complicated.

**Exercise 17. Read the following proper names from the text.**

Taiwan, Netherlands, TGV – French High Speed Train (Train à Grand Vitesse), Switzerland, ICE – International City Express (Germany), Wurzburg, Hanover, Stuttgart, Frankfurt, the Eurotunnel, Brussels, AVE – Spanish high-speed train, the Madrid-Sevilla route, Barcelona, an Acela train, Amtrak – American Track (National Railroad)

Passenger Corporation), Tokaido Shinkansen, Pendolino, CTRL (Channel Tunnel Rail Link), Technical Specifications for Interoperability (TSI).

**Exercise 18. Translate the word combinations from the text.**

A highly desirable goal; reducing journey time significantly; streamlined shape; the existing means of rail transport; the most heavily travelled routes; upgraded conventional lines; in the vanguard of high-speed R&D; the world's fastest experimental Maglev train; the rail industry's rising star; the third generation Duplex double-deck TGVs; a fully loaded train; to capture a market share; in accordance with the European strategic goal; as fast on curves as on the straight lines; designed to meet European interoperability standards; compatible with existing infrastructure; using existing and proven technologies; designed to improve ride quality; a body tilting system; the double-wing nose shape.

**Exercise 19. Pre-text discussion.**

How have the speeds changed since the early days of railways? Do you agree that high-speed revolution is sweeping round the world? Which countries have made the biggest progress in developing their high-speed networks? What is the speed developed by trains on conventional lines? on high-speed lines? on Ukrainian lines? Can high-speed trains compete against aircraft?

*Text*

**HIGH SPEED RAIL**

(1) Speed has always been a highly desirable goal for the engineers in their attempts to perfect rail transport. By reducing journey time significantly, rail becomes an effective alternative for both road and air travel.

(2) Just as Great Britain was a birthplace of locomotives in the 19<sup>th</sup> century, Japan became a high-speed pioneer in the 20<sup>th</sup> century. By the 1960s railways were regarded in many countries as an outdated mode of transport with slow train speeds and steam traction still around. October 1964, when the world's first high-speed line Tokaido Shinkansen opened to the public, became a pivotal point in railway

development. *The bullet train* (called so because of its stream-lined shape and the speed of 210 km/h) was a major leap forward in railway technology and paved the way for high-speed rail (HSR) revolution now sweeping through Asia and Europe. At present Japan has the



most heavily travelled, and the largest HSR network in the world.

(3) Typically, high-speed trains travel at top speeds of between 250 km/h (on upgraded conventional lines) and over 300 km/h (on new dedicated lines). The world record for a wheeled train was set in 2007 by a French TGV that reached a

speed of 575 km/h. Japan is still in the vanguard of high-speed R&D with the world's fastest experimental *Maglev* train (the absolute train speed record of 581 km/h). The Maglev train based on the principle of magnetic levitation can be likened to a flying train or a guided aircraft, supported by the force of powerful magnets. The train is not in commercial operation yet, and high costs remain as barriers. Anyway, Maglev technology is often called the rail industry's rising star.

(4) Europe's railways entered the high-speed era at the beginning of the 1980s. The acronyms<sup>1</sup> and brand names such as *TGV*, *ICE* and



*AVE* have become familiar to rail travellers and general public.

France has perhaps the most developed high-speed network in Europe. The *TGV* (*Train à Grande Vitesse*) network started in 1981 with the opening of Europe's first dedicated high-speed line between Lyon and Paris. There have been

three generations of TGV, two single-deck, and the *Duplex double-deck* version. The first generation of TGVs in 1981 mastered the high speed of 270 km/h. The second generation in 1989 mastered comfort at high speed. The third Duplex generation TGVs from 1997 mastered comfort, capacity, and economy at the speed of 320 km/h. Recently Alstom has built a radically new design of TGV called *AGV*. The fourth generation of TGV takes advantage of the latest advances in



technology and meets the new Technical Specifications for Interoperability (TSI)<sup>2</sup> for high-speed trains. The first train AGV operating at 350 km/h rolled out of the factory in 2007. The TGV



network with six high-speed lines gradually spread out to other cities, and into other countries such as Switzerland, Spain, Belgium, Holland, the UK and Italy.

(5) In Germany, high-speed operation commenced in 1991 with *InterCity Express (ICE)* trains. Starting in 2000,

multisystem third-generation ICE trains entered the Netherlands and Belgium. The third generation of the ICE developed by Siemens reaches a speed up to 363 km/h.

(6) In the United Kingdom, *Eurostar* trains which run through the Channel Tunnel between the UK and both France and Belgium, are modified versions of the TGV trains. The first Eurostars entered service in 1994 and immediately started to compete strongly against air. Within a short time, Eurostar has captured a 69 % market share on the London–Paris axis, which had one of the busiest air corridors in Europe. A fully loaded train of 794 passengers is equivalent to seven Boeing 737s. It is also the only train service in the world with airline-style check-in<sup>3</sup> procedures imposed for security.

Section 1 of the Channel Tunnel Rail Link (CTRL) has a line speed of 300 km/h and is concerned mostly with international trains. The opening of phase two of the CTRL2 in 2007 will provide journey times of 1h 20 min to Lille, 1h 51 min to Brussels, and 2 h 15 min to Paris. Many French people work in London during the week, and at weekends about 80 % of them use Eurostar (which runs every half an hour) to get back to France.

(7) The *AVE (Alta Velocidad Española)* high-speed rail network in Spain was started with the opening of Madrid-Sevilla route in 1992.

The latest Spanish high-speed train *Velaro* with a top speed of 350 km/h is the fastest series-produced train worldwide travelling 600 km between Barcelona and Madrid in only 2.5 hours. The Spanish





government has also entered into several agreements with France and Portugal in accordance with the European strategic goal – to connect all the major European cities by high-speed rail.

(8) The earliest high-speed train deployed in Europe was the Italian

*Direttissima* that connected Rome with Florence in 1978. Now Italy makes extensive use of tilting train technology based on research work undertaken by Fiat Ferroviaria in the 1970s. The *Pendolino* concept is based on the way a motorcyclist combats centrifugal forces by leaning into a bend<sup>4</sup>. For trains, the idea was tested in Italy, a country, whose mountainous geography influences its roads and railway tracks.



The state-of-the-art modular trains, which are designed to meet European interoperability standards, come in two versions: a tilting Pendolino, and non-tilting train for 250 km/h shuttle services. Alstom's Pendolino is by far the market leader with its sophisticated electronics, extensive computerization and tilt system. Journey times have been dramatically reduced by the Pendolino which is almost as fast on curves as it is on the straight lines, and can run on standard tracks.

(9) The major passenger carrier in the United States, Amtrak, has been operating *Acela Express* trains on the northeast corridor between Boston, New York and Washington since 2000.

These trains tilt on curves along the track, the average speed being about 132 km/h (which is much lower than that in Europe or Asia). The Acela train has definite similarities to its 'parent', the TGV train, using existing and proven technologies from Bombardier and Alstom.

One of the United States' leading manufacturers, GE, has now recognised the potential of high-speed and will form a US-based joint venture with CSR, China. The joint venture will supply high-speed

passenger trains to meet Buy America standards for the proposed high-speed corridors in Florida and California

(10) The HSR map of the world is increasingly expanding now. Membership of the once highly exclusive HSR club is steadily growing. The length of the HSR network will more than double worldwide in the next 10 years, increasing to 14,400 km by 2015. This decade will see the completion of the majority of the European high-speed network in France, Germany, Spain, Belgium, Italy, Britain, and the Netherlands. Taiwan has just joined the Asian high-speed club, following Japan and Korea.

The scale and speed of the development of high-speed rail in China is unprecedented. The figures speak for themselves. It is just over two years since China opened its first line, and by 2012 China will have the world's largest high-speed network, covering around 13,000 km. It is now making plans to connect its high speed rail line through 17 other countries in Asia and Eastern Europe in order to connect to the existing infrastructure in the EU. Additional rail lines will also be built into South East Asia and Russia, in what will likely become the largest infrastructure project in history.

China also increased the maximum speed of high-speed trains from 350 to 380 km/h and is now ready to break the rail world speed record. *China Star* is the first high-speed train produced in China using its own intellectual rights. It has also developed the world's only commercial Maglev line.

(11) Russia is determined to realize *The Programme to Develop Fast* (up to 160 km/h) *and high-speed* (up to 350 km/h) *passenger rail travel to 2020* aimed to improve the comfort, frequency, and speed of the country's passenger trains. The first high-speed trains "*Sapsan*" named after the fastest bird in the world and developed jointly by the Russian Railways and Siemens entered service between Moscow and St. Petersburg in December 2009 and later, in 2010 between Moscow and Nizhny Novgorod. The trains travel at roughly 250 km/h. The introduction of 220 km/h Alstom Pendolino tilting emus under the brand name *Allegro* (operated since 2010) cut the journey time between St. Petersburg and Helsinki, Finland. A new ambitious plan of linking all cities to host the 2018 Soccer World Cup by a high-speed rail network is being considered now.

(12) As for Ukraine, the first steps in the development of high speed traffic were made in 2002, when Capital Express departed from Kiev to Kharkov. One of Ukraine's priority transport projects includes the construction and extension of high-speed rail links for passenger transport at both national and international level.

Recently Ukraine signed an agreement with Russia on the development of high-speed rail traffic between the two countries (Moscow – Kiev, Moscow – Adler and Moscow – Simferopol) with 'Sapsan' trains. EP-20 dual-voltage locomotives will run at a speed of 200 km/h, thus avoiding locomotive change throughout the journey. It is planned to facilitate cross-border transit by revising customs control for high speed trains. One of the most challenging stimuli was preparation for the European Football Championship 2012, the priority tasks being ensuring the priority routes between the host cities stretching about 600 miles with journey time about 4 hours. The travel time between Kharkiv and Donetsk will be cut to 1 hour and 50 minutes, Kyiv-Donetsk to 5 hours and 30 minutes and Kyiv-Lviv to 4 hours and 30 minutes and Kharkiv-Kyiv to 3 hours and 30 minutes. To implement this task Ukraine signed an agreement with Korean corporation **Hyundai** to supply 10 nine-coach 160 km/h intercity emus. The introduction of high speed trains requires the extensive upgrading of infrastructure which is underway in Ukraine.

(13) Much of the technology behind HSR is compatible with existing infrastructure. The trend in Europe seems to be away from dedicated high-speed passenger railways towards mixed traffic lines for maximum benefit. Mixed traffic lines are usually reserved for high-speed passenger trains during the daytime, while freight trains go at night.



(14) High-speed rail technology has come a long way since the first Japanese bullet train flashed past Mount Fuji in 1964. Advances in technology have made it possible to almost double the maximum speed of trains from 200 to 380 km/h, which has extended the commercial reach of high-speed

trains to distances in excess of 1000 km. The last generation of high-speed trains is designed to improve ride quality, reduce noise and consume less energy, and thereby be more environmentally friendly. New technical developments are leading to lighter, more-aerodynamic trains, which cost less per seat to operate.

The Japanese *N700*, planned for service since 2007, incorporates the latest technologies, such as inter-car hoods<sup>5</sup> to reduce external noise, a nose shape with superior aerodynamic performance. It is also the first Shinkansen train to feature an air-spring-based tilting system<sup>6</sup> which allows the train to operate at higher speeds through curves. The double-wing nose shape (so called because of its resemblance to a bird) was developed on the basis of the latest analysis technology, used in the development of aircraft wings, for the first time in a rail vehicle.

A new generation of Shinkansen trains *FASTECH 360* with a top speed of 405 km/h is currently under development. Its name is a combination of Fast, Technology, and the operational speed of 360 km/h. *FASTECH 360* trains are equipped with ear-like air brakes for emergency halt protruding<sup>7</sup> from the roof. In Japan the train got a nickname ‘cat-eared Shinkansen’. *FASTECH 360* trains will have an arrow-line shape with a ‘duck-bill nose’. Like most high-speed trains, *FASTECH 360* will have distributed traction instead of power cars. The modular concept implies grouping cars in two three-car sections linked together with a so-called key car. Production trains are expected to enter service in 2011.



<sup>1</sup> *acronym* – акронім (слово, що сформовано з перших літер словосполучення)

<sup>2</sup> *Technical Specifications for Interoperability (TSI)* – технічні вимоги до експлуатаційної сумісності

<sup>3</sup> *check-in procedures* – процедура реєстрації

<sup>4</sup> *lean into a bend* – нахилитися на кривих

<sup>5</sup> *inter-car hoods* – міжвагонний обтічник

<sup>6</sup> *air-spring-based tilting system* – пневматична система нахилен кузова  
<sup>7</sup> *protruding* – що виступають

**Exercise 20. Answer the following questions.**

1. What are the advantages of high-speed trains over automobiles and aircraft? 2. Which country is the world's high-speed pioneer? 3. Why was the year of 1964 a pivotal point in the railway development? 4. Which speeds are common on upgraded conventional lines now? What is the high-speed standard for dedicated lines? 5. Is Japan still in the vanguard of high-speed R&D? How can you prove it? 6. What is the world speed record for a wheeled train? 7. What is the world speed record for an experimental Maglev train? 8. When and where did the first European high-speed line appear? 9. How many generations of TGV trains do you know? How do they differ? 10. Which countries are connected to the TGV network? 11. When did Germany commence high-speed operation? 12. What is a Eurostar train? 13. What is the journey time from London to Paris and Brussels by Eurostar? 14. How is HSR developing in Spain? 15. What is the main passenger carrier in the USA? Which trains does it operate? 16. What concept is Pendolino train based on? 17. What is one of the characteristic features of tilting trains? 18. How is the high-speed map of the world expanding? 19. Which countries will join the Asian high-speed club in the near future? 20. Are there high-speed trains in Ukraine? 21. What features do the latest high-speed train possess? 22. What will be the main advantage of the N700 tilting train? 23. What does the modular concept of the latest high-speed trains imply? Why is FASTECH 360 nicknamed 'cat-eared Shinkansen'? 24. What is the trend in operating HSR in Europe? 25. Can you name the major railway producers and manufacturing companies in Europe?

**Exercise 21. Complete the sentences with the following words:**

*purpose-built, consume, guided, captured, state-of-the-art, dedicated, boosting, pivotal, tilting, commenced, likened, bullet, compatible, ride quality, mastered.*

1. The first generation of TGVs ... high-speed. 2. French Railways deploy a new generation Super-TGV on ... infrastructure. 3. Germany ... its high-speed operation in 1991. 4. Eurostar has ... a 69 % market

share on London-Paris axis. 5. Italian ... vehicles have been developed with Tiltronix technologies. 6. High-speed stations are the main stimulus for ... economy. 7. A ... train was a beacon of hope for both Japanese and world railways. 8. Japan's Tokaido Shinkansen Railway is the first ... high-speed line in the world. 9. The new modular trains come in two versions: a ... Pendolino and non- ... train. 10. October 1964 became a ... point in railway development. 11. Maglev trains can be ... to a flying train or a ... aircraft. 12. Much of the technology behind HSR is ... with existing infrastructure. 13. The last generation of high-speed trains is designed to improve ..., reduce noise and ... less energy.

**Exercise 22. Are these sentences true or false? Correct the false sentences with the facts from the text.**

1. At present France has the most heavily travelled, and the largest HSR network in the world. 2. Japan pioneered high-speed transportation in 1964. 3. There have been four generations of TGV in France by now. 4. The Maglev train is in commercial operation already. 5. Currently the TGV network consists of six high-speed lines. 6. Europe's railways entered the high-speed era at the beginning of the 1990s. 7. Eurostars cannot compete successfully against air. 8. Tilting trains have been widely used in Italy because its mountainous geography influences the roads and railway tracks. 9. The Pendolino is not so fast on curves as it is on the straight lines, and can run only on dedicated tracks. 10. American high-speed trains are as fast as European ones. 11. Membership of the highly exclusive HSR club is limited by European countries. 12. Ukraine will soon enter the HSR club. 13. Much of the technology behind HSR is incompatible with existing infrastructure.

**Exercise 23. Find the appropriate description for the following words.**

- |               |  |
|---------------|--|
| a) congestion | 1) a form or variant of a type or original               |
| b) service    | 2) an established or selected course of travel or action |
| c) a bogie    | 3) something that is occurring or existing presently     |
| d) a curve    | 4) a plan indicating the time and sequence of each       |
| e) traffic    | operation  |
| f) a route    | 5) overfullness of trains and other vehicles             |



- g) version
- h) currently
- i) a schedule
- j) a crossing
- 6) the labour performed for another, duty done or required
- 7) a vehicle's movement through an area or along a route
- 8) a place or structure for crossing the road
- 9) a driving-wheel unit
- 10) a part of the track that is hook-shaped or bent

**Exercise 24. Look through the text attentively again and fill in the chart.**

<b>Train type</b>	<b>Country of origin</b>	<b>Top speed</b>	<b>Cities connected</b>	<b>Special features</b>
<i>AVE</i>				
<i>TGV</i>				
<i>ICE</i>				
<i>Pendolino</i>				
<i>Acela</i>				
<i>Maglev</i>				
<i>Eurostar</i>				
<i>Direttissima</i>				
<i>China Star</i>				
<i>N700</i>				
<i>FASTECH 360</i>				
<i>AGV</i>				
<i>Sapsan</i>				
<i>Allegro</i>				

**Exercise 25. Write a summary of the text, presenting the content of each paragraph in 2-3 sentences. Use the expressions:**

The main idea of the text is ... .

The text deals with one of the most important (urgent) issues ... .

Much attention (consideration) is given to (classification, description) ... .

It focuses on the matters of ... .

The text gives an overview of ... .

The text is mainly concerned with ... .

The aim of the survey is to show (demonstrate, find) ... .

Particular emphasis is given to the analysis of ... .

The text gives a detailed analysis of (reports on) ... .

To sum up ... .

In conclusion ... .

## **Exercise 26**

*The World Congress on High Speed Rail, initiated and organized by the International Union of Railways (UIC) since 1992, has now become the leading global event for showcasing the developments and achievements of the worldwide high speed rail. The 7<sup>th</sup> UIC world congress on high-speed rail, hosted in Beijing, China (2010) by the Ministry of Railways and the Chinese Academy of Railway Sciences, showcased the latest high-speed technologies and project developments. The event was attended by 20 senior government officials from China and other countries, and 50 heads of the world's leading railways and manufacturers. The next UIC high-speed congress will be held in Washington DC, United States, in 2012.*

**You are a participant of the international scientific conference ‘European HSR’. Make a report basing on the text (or any other source including Internet) and present it to the audience. Remember that there are some universal rules and language to build and frame your report.**

**Opening phrases:** Dear friends (colleagues)! Honoured members of the organizing committee! It's my privilege today to be talking to professional experts in this field. I represent ... .

**Stating the target:** The goal of my report/This presentation is to discuss the issues of (to review, to consider, to highlight, to analyse) ... .

Besides, I am going to focus on the matters of ... .

I would like to give special emphasis to ... .

I am here to report on the latest developments in ... .

That brings me to the next point.

Well, now we've given the main outline, we can ... .

**Conclusion:** Now let me summarize the main points. (To sum up) ... .

Well, I think that covers it.

That's about all I wanted to say. Thank you for your attention. If there are any questions, I'll be glad/happy to answer them.



It is my very great pleasure to thank you on behalf of this meeting. Just before we break up, may I on behalf of ..., say a few words of thanks to ... .

**Use the following phrases to present and develop your arguments:** personally, obviously, what is more, that is why, generally speaking, another point is that, all things considered, on the one hand (on the other hand), to sum up, one (dis)advantage is that, for instance, to my mind, finally, on the plus side, however.

**Exercise 27. Read the text and summarize all the pros and cons of HSR. You may add your own arguments for or against.**

### *Supplementary Text A*

## **HIGH-SPEED TRAINS VERSUS AUTOMOBILES AND AIRPLANES**

There are constraints on the growth of the highway and air travel systems, among them traffic congestion or capacity limits. Airports have limited capacity to serve passengers during peak travel times, so do highways. HSR is able to relieve congestion due to potentially very high capacity on its fixed corridors.

HSR has the advantage over automobiles in that it can move passengers at speeds far faster than those possible by cars, while also avoiding congestion. High-speed travel means less pollution, less energy consumed, in addition to being less stressful, more productive and more reliable than car journey.

While high-speed trains generally do not travel as fast as jet aircraft, they have advantages over air travel for relatively short distances (of less than 650 km). The process of checking in and going through security screening at airports, as well as the journey to the airport itself makes the total journey time comparable to HSR. Trains can be boarded more quickly in a central location, eliminating the speed advantage of air travel. Rail lines also permit far greater capacity and frequency of service, and rail schedules find fewer weather-related interruptions than do airline schedules. Another plus point of HSR is comfort: the journey involves fewer modal changes, less standing and queuing, and more spacious seats.

High-speed trains are more environmentally friendly, especially if the routes they serve are competing against clogged highways.

A side effect of HSR is opening up of previously isolated regions to fast economic development.

The problem with high-speed trains is that high speed means high costs comparable with air transportation costs. While the anti-HSR lobby says people will never be parted from their cars, the principle remains that powering one engine to transport hundreds of people is better economically and environmentally than powering a car with one person.

### **Exercise 28. Discussion.**

Notwithstanding the high-speed revolution in Europe and Asia, there are countries reluctant to develop HSR. The USA, for instance, is cautious about very high speeds. Governor Jeb Bush of Florida is opposed to the latest plans to build a high-speed line in his state, and is doing everything he can to derail the project. Similarly, in Germany there is a growing opposition to building a Transrapid Maglev system. Of course, the economic situation differs between the countries, but how can high-speed rail be seen as a benefit in Spain, but a liability in the United States?

### **What do you think about these facts?**

Divide into two groups of opponents and proponents of HSR in Ukraine. Present your arguments for and against.

**For ideas:** enhance rail's image; shorten journey times; attract customers from competing modes; reduce (increase) environmental impact; boost economic development; encourage growth and investment in distant regions; encourage mobility linking different regions of the expanded EU.

### *Supplementary Text B*

### **WHAT IS MAGLEV?**

Magnetic levitation or Maglev is the rail industry's rising star just now. Maglev systems, with top speeds between 250 and 300 mph, use forces of attraction or repulsion<sup>1</sup> from powerful magnets placed in either the vehicle or the guideway<sup>2</sup> beneath it both to lift the vehicle

and to propel it forward. The gap between the vehicle and the guideway is continuously monitored, varying from 10 mm to 100-150 mm.

The train must be balanced on the magnetic field against varying passenger loads, wind buffeting and centrifugal effects on bends. This requires very accurate and fast control, which is easier to implement with today's electronic systems.

In contrast to high-speed rail (HSR), Maglev systems involve no physical contact between the guide-way and the train, which means less wear, less maintenance, less noise and no friction to overcome. It also makes Maglev ideal for urban environments. Trains can run in any weather, on steep inclines<sup>3</sup> and tight turns<sup>4</sup> without reducing speed. Maglev rides are as comfortable as those on airliners flying in non-turbulent air.

There are two countries working on Maglevs now – Japan and Germany. But their designs are fundamentally different. Japanese Maglev uses magnets made with superconductors, the extraordinary materials that carry electric currents without resistance and must be chilled to – 425 F



(Fahrenheit) for that. The West German model, known as the Transrapid, uses conventional, room temperature electromagnets. Another major difference between the two designs is the way the trains levitate. The two systems use opposite ends of the magnet to lift off. One is using attraction force, the other repulsive force. However, in both cases the train effectively rides an electromagnetic wave. Theoretically, the train can travel beyond 1,000 km/h (620 mp/h). So far, a record speed of 560 km/h was achieved during an unmanned run at Central Japan Railway's Maglev test track.

Transrapid has demonstrated safe and reliable operation of its Maglev vehicles at speeds up to 450 km/h on its 35 km test track in Emsland, Germany having carried hundreds of thousands of passengers by now. The Transrapid consortium is also working on two major projects, the Los Angeles–Las Vegas link and a 95-mile Hamburg–Hannover line.

In China, the new 430 km/h Transrapid Maglev train connects Shanghai's financial district with the International airport in only 7.5 min.

Critics say Maglev is a high cost system, but proponents say that costs are comparable with new motorways or HSR, whereas Maglev's higher speeds can attract more passengers and produce more revenues.

<sup>1</sup> *repulsion* – відштовхування

<sup>2</sup> *guideway* – *тут* залізнична колія

<sup>2</sup> *steep inclines* – круті нахили

<sup>3</sup> *tight turns* – круті повороти

**Exercise 29. Answer the following questions.**

1. What does the term Maglev mean? 2. Describe the functioning principles of Maglev systems. 3. Compare the Maglev projects in Japan and Germany. 4. Where are Maglev systems used? Are they commercial?

**Exercise 30. What do you know about high speed trains in Russia? Look through the text below and be ready to comment on it.**

*Supplementary Text C*

**RUSSIAN FIRST HIGH SPEED TRAIN SAPSAN  
ENTERS SERVICE**

In 2005 RZD drafted a programme for the development of its express and high speed services. This called for a gradual increase in line speed from 160 km/h to 250 km/h on major routes and a new design of high speed trainset.

December 18, 2009 saw Russia enter the modern railway age with its first high-tech express train travelling between the country's two main cities – Moscow and St.Petersburg. The train has been named the Sapsan, meaning 'peregrine falcon' (сокіл) – the fastest bird in the world, and no doubt a reference to its immense speed.

During his speech at the unveiling of the Sapsan, Russian Railways President Vladimir Yakunin stated that 'This is not just a train and these are not just carriages, this is a different life, different technology, a different means of transport'.

The train was designed by German engineering giant Siemens, which in 2006 signed a contract with Russian Railways (RZhD) to supply eight of its Velaro trains. The Velaro Rus were built on the basis of Velaro platform (also ordered as the AVE S103 for Spanish National Railways and the CRH3 for Chinese Railways) which proved to be flexible enough to be adapted to the Russian requirements. Russian experts from the All-Russian Railway Research Institute (VNIIZhT) proposed their own design changes which were then adopted by their Siemens counterparts. Of major significance were Russia's harsh winter conditions with sub-zero temperatures, the gauge of 1520 mm, and the need for compatibility with existing infrastructure. The 10-car Velaro RUS trains were awarded full federal safety certification. To permit a top speed of 250 km/h, the track and electrification systems had to be upgraded.

The Sapsan has the capacity to carry 600 passengers, covering the 645 km in a time of 3h 45 min, whereas flying takes 5 h and more, including airport transfers and check-in. The Sapsan offers the added advantage of starting and ending the journey in the middle of the cities, which is a time-saving factor for busy people.

The stylish Velaro Rus brings unprecedented standards of speed and comfort to Russian rail. The automatic doors and huge glass windows add a touch of luxury and convenience. A characteristic feature of the Velaro end car is its narrow shape that is streamlined to give good aerodynamic performance at high speed. The full service includes three trains a day. The total population of both capitals is 25 million, accounting for 18 % of the Russian population. So far, there has been a steady demand for Sapsan train – normally, 90.8 % of tickets are bought – which allows high speed train to compete with planes.

Since 2010 Sapsan has been operating on Moscow – Nizhny Novgorod route. By 2013 it is planned to reduce the time of travel from Moscow to Nizhny Novgorod to 3 hours and 30 minutes, which is two times faster than by regular passenger trains.

## CONVERSATIONAL PRACTICE

**Exercise 31. Match a line in A with a line in B. Compose your own dialogue with the expressions in *italics*.**

## A

- a) Could I use your phone for a moment?
- b) What film would you like to see tonight?
- c) Everyone says you're mad. Did you know that?
- d) I'll give you £6,000 for your car. That's my final offer.
- e) When he told me he'd smashed my car, I was furious!
- f) Oh, no! The photocopier's jammed again!
- g) Can we meet next Thursday?
- h) Bye! I'm off now!

## B

1. *Let me see.* Yes, I can make the morning.
2. Has it? *Let me have a look.* I'll try and fix it.
3. *Hang on a sec.* Where are you going?
4. *I don't care* what other people think. That's their problem, not mine.
5. *I don't mind.* Whatever you want.
6. *By all means.* Help yourself.
7. *I bet* you were. I'd have hit him.
8. *It's a deal!* It's yours!

## WORD BUILDING

**Conversion** (*Конверсія*)

*house*, *n* – дім, будівля

*Modern houses are comfortable.*

*house*, *v* – розміщуватись, вміщатися

*The building houses a library and a reading hall.*

### Exercise 32. Translate the following sentences.

1. The *telephone* is the invention of the 19<sup>th</sup> century.
2. Sam didn't *telephone* me yesterday.
3. Nelly's *visit* has come to an end.
4. Why don't you *visit* her?
5. The city was in *ruins*.
6. That fact *ruined* John's career.
7. Have you got many *mistakes* in your test?
8. You have *mistaken* me for somebody else.
9. I don't know this girl's *name*.
10. The boy was *named* after his grandfather.
11. Pete wants to *pilot* modern airplanes.
12. He wants to become a *pilot*.
13. He was the *last* to come.
14. The process of calculation can *last* several hours.
15. You are to *present* the results of your research in a week.
16. The nature and properties of a compound depend on the number and kind of

atoms *present*. 17. At *present* most high-speed trains operate on distributed power.

**Exercise 33. Complete the following sentences, using the correct form of:** *place, placed, cut(2), heat(2), shape, shaped, concrete, concreted, deal, deals with*.

1. ... has become an important construction material.
2. The large hole was ... over.
3. He carefully studied ... of the stones.
4. Clay is easily ... .
5. There is no need to ... the substance.
6. I'm suffering from the ... .
7. The region is ... into two parts by the river.
8. A great ... of attention is paid to the study of the fundamentals of physics.
9. The article ... the investigations and achievements of world science in the field of radioactivity.
10. There was a deep ... on his hand.
11. We couldn't find a dry ... anywhere.
12. Why have they ... the bridge here?

**Compound words**  
(Складні слова)  
*post office, sunrise, headache, face-lift*

<b>Compound</b>			
<b>Nouns</b>	<b>Adjectives (Participles)</b>	<b>Verbs</b>	<b>Adverbs</b>
<u><i>n + n</i></u>	<u><i>n + pp</i></u>	<u><i>adj + v</i></u>	<u><i>adv + adv</i></u>
railway	heat-treated	fulfil	throughout
hairstylist	<u><i>adj + adj</i></u>	safeguard	outwards
bassguitarist	red-hot	backfire	upright
sideboard	light-green	backdate	inward
<u><i>adj + n</i></u>	<u><i>adj + pp</i></u>	blackmail	
blackboard	hard-working	<u><i>adv + v</i></u>	<u><i>adv + n</i></u>
blueprint	<u><i>n + adj</i></u>	update	out-of-date
old-timer	worldwide	download	up-to-date
longhand	<u><i>adv + pp</i></u>	out-jockey	overhead
<u><i>adv + n</i></u>	highly-paid	uprise	overboard
out-break	<u><i>numeral + n</i></u>	overestimate	aboveboard
afterglow	first-class	inlay	overleaf
down-grade	<u><i>numeral + adj</i></u>	undercut	downhill
up-train	three-dimensional	overfeed	

**Exercise 34. Read and translate the compound words.**

Week-days, air-resistance, dark-blue, reference-book, day-off, south-west, life-story, mapmakers, fellow-workers, newcomer, present-day, out-break, upland, best-seller, fast-tracker, down town, west-Ukrainian, out-of-date, long-standing, well-paid, second-liner, clockwise, two-thousand-year-old, world-famous, right-hand, overcome, Middle Eastern, undertake, upward, ill-timed, best-selling, cold-blooded, kind-hearted, far-reaching, middle-aged, sunshine, afternoon, beforehand, son-in-law, blackboard, letterbox, daybreak, ice cream, nightfall, dark-eyed, newly discovered, the Sun-at-centre-picture, single-handed efforts, framework, shipbuilding, guardsman, gooseberry, goodwill, godlike, godfather, freeholder, foxhole, foxtail, fingerprint, footfall, flagship, firewood, fireworks, dreamlike, dressmaker, changeability.

**Exercise 35. Make up compounds by combining a word from A with a word from B.**

A	B
book, video, speed, radio, light, time, remote, junk, word, food, air, computer	food, shop, table, mail, conditioned, software, maker, perfect, recorder, processor, bomb, headed, consuming, limit, poisoning, bulb, boat, controlled

**Exercise 36. Put one word into the gap to form three compound nouns.**

*Model: tooth ache, brush, paste.*

1. Dining, living, changing ... .
2. ... lights, warden, jam.
3. ... way, racing, bike.
4. Cooking, telephone, note ... .
5. ... engine, place, works.
6. Birthday, credit, get-well ... .
7. ... dresser, brush, cut.
8. ... conditioning, mail, port.
9. ... cup, spoon, pot.
10. ... glasses, bathing, set.
11. News, travel, estate ... .
12. Wrapping, writing, toilet ... .
13. Chair, fire, dust ... .
14. ... case, shop, worm.



### Exercise 37

a) match a word in A with a word in B to make a new compound noun.

A	B
department, railway, book, traffic, bus, motor, car, travel, ticket, rush, air	port, way, park, agent's, office, station, stop, store, shop, hour, lights

b) fill in the gaps with the correct compound noun from mentioned above.

1. Stop the car! The ... are red. 2. Heathrow is one of the biggest ... in the world. 3. Harrods is the best ... in London, but it's very expensive to go shopping there. 4. We waited in the rain at the ... for an hour before the bus came. 5. All big towns have a ... every morning when people go to work, and again in the evening when they go home. 6. Sun and Sea is the best ... in the town. They have good, cheap holidays. 7. I hate driving on the M25. It goes around London and it's one of the busiest ... in the country. 8. The ... was very big and I couldn't find the ... . A man told me that it was near Platform 1. 9. No, I didn't borrow this book from the library. I bought it at a ... .

### Exercise 38

a) give nouns of the same root:

own, pay, exhibit, enter, admire, attract, mean, exclaim, discuss, build, found, silent, possible, different;

b) give adjectives of the same root:

price, end, owner, hope, silence, difference;

c) give verbs of the same root:

foundation, discussion, builder, admiration, owner, meaning, exclamation, entrance, payment, attraction, exhibition, furniture;

d) give adverbs of the same root:

week, open, nice, large, possible, present, different, ready, special, right, happy, wonderful, hard, hopeless, clear, silent, cheap, last, dreamy.

## GRAMMAR REVISION

### Exercise 39. Complete the sentences with a question word and an infinitive.

*Model:* Shall I wear my red skirt or my blue one?

She doesn't know which skirt to wear.

1. 'Shall I invite people for 7.00? Or 8.00? Or 9.00?' She can't decide ... .
2. 'Should I invite Suzie or not?' She isn't sure ... .
3. 'I could invite people by e-mail if I knew how to use it'. She wants someone to show her ... .
4. 'Shall I buy beer? Wine? Sherry? She can't decide ... .
5. 'Shall I invite ten people? Thirty people? Forty people?' She doesn't know ... .

### Exercise 40. Put the verb in brackets in the appropriate tense.

My wife and I (*live*) in our present house in the country for five years. We (*move*) here after our second child (*be*) born. We (*live*) in town for ten years, and (*decide*) that as soon as we (*can*) afford it, we (*move*) away from the smoke and the noise of the city centre, which we finally (*do*) in 1985. We never (*regret*) it.

We (*be*) reminded of the wisdom of our decision every morning when we (*draw*) the curtains to see open fields stretching before us. When the children (*have*) breakfast, they (*rush*) outside to play, which they (*do*) whatever the weather. Whilst they (*play*) outside, we somehow manage to start the day.

## UNIT 9

*Grammar:* Complex Object and Complex Subject

Modal Verbs: Certainty and Possibility in Present and Past  
Phrasal Verbs

*Text:* Railway Transport Economics

*Supplementary text A:* Logistics on the Move

*Supplementary text B:* Advertising Then and Now

*Supplementary text C:* Revolution in Ticketing

*Word building:* compound words, -ed, self+Present (Past) Participle

### READING RULES

<b>th</b>	[ð]	у сполученні <b>th</b> на початку службових слів та між голосними	the, then, mother
	[θ]	у сполученні <b>th</b> на початку та наприкінці самостійних слів	thin, thick, seventh

#### **Exercise 1. Read the following words:**

[θ] theme, thick, three, thin, depth, tenth, fifth, sixth, width, teeth, theft, thong, thought, Thursday, third, thousand, theatre, health, tenth, path, lath, cloth, earth, south, birth, mirth, method, sympathy, anything;

[ð] these, they, then, with, within, them, breath, those, thus, thy, there, smooth, lathe, fathom, gather, rhythm, father, mother, brother, rather, either, neither, leather, feather, southern, together, further.

#### **Exercise 2. Read the following word combinations.**

1. Through thick and thin. 2. Matthew's thirty-third birthday. 3. These thousand thoughts. 4. With these three thieves. 5. The thoughtful Ruth. 6. The fourth and the fifth themes. 7. The enthusiastic brothers. 8. Neither Father nor Mother. 9. The length of this parenthesis. 10. This sympathetic author. 11. The thick cloth. 12. Thinner than this scythe. 13. Thanks to Matthew, Ethel and Bertha. 14. Catherine and Edith are thick together.

## GRAMMAR

### Complex Object

(Об'єктний інфінітивний зворот)

Підмет	Дієслово-зв'язка	Доповнення	Інфінітив
<i>I</i> Я	<u>want</u> хочу, щоб	<i>you</i> ти	<i>to help me clean the flat.</i> допоміг мені прибрати квартиру.
<i>He</i> Він	<u>expects</u> сподівається, що	<i>me</i> я	<i>to type these letters.</i> надрукую ці листи.
<i>I</i> Я	<u>saw</u> бачив, що	<i>him</i> він	<u>cross the road.</u> перейшов дорогу.
<i>I</i> Я	<u>heard</u> чув, що (як)	<i>the car</i> машина	<u>stop.</u> зупинилася.

### Дієслова, після яких вживається Complex Object

<u>Розумова діяльність, припущення, сподівання:</u> <i>consider, believe, think, suppose, know, understand, expect, find</i> та ін.	<i>We believe these experiments to be very important.</i> <i>I found him to be dishonest.</i>
<u>Прохання, вимога, порада, дозвіл:</u> <i>ask, permit, recommend, order, command, request, make, cause</i> та ін. Після <i>make</i> і <i>let</i> вживається інфінітив без <i>to</i> ! Після <i>ask</i> у значенні «просити» завжди стоїть прийменник <i>for</i>	<i>The teacher makes us learn the new words.</i> <i>The manager ordered the letter to be typed.</i> <i>He asked for the letter to be sent off at once.</i>
<u>Сприйняття за допомогою органів почуттів:</u> <i>see, hear, feel, notice, observe, watch</i> та ін. (інфінітив без частки <i>to</i> )	<i>Have you heard her play the piano?</i> <i>I saw her enter the house.</i>
<u>Бажання, ненависть, любов:</u> <i>want, desire, should (would) like, hate, like, intend</i> та ін.	<i>I wanted him to be invited here.</i>

<u>Дієслова з прийменниками:</u> <i>wait (for), rely (on), count (on)</i> та ін.	<i>I rely on you to do it in time.</i>
--	--

Примітка – після дієслів чуттєвого сприйняття за допомогою органів почуттів може стояти *Present Participle*.

*I watched a pavement artist draw a portrait in crayons.* – Я спостерігав, як художник намалював портрет пастеллю (закінчена дія).

*I watched a pavement artist drawing a portrait in crayons.* – Я спостерігав, як художник малював портрет пастеллю (дія виконується, але ще не закінчена).

### Exercise 3. Translate the sentences paying attention to the Complex Object.

1. He wanted us to visit the art exhibition.
2. I suppose her to be about 50.
3. Everybody knows him to be working on a new book.
4. We heard him come in and close the door behind him.
5. In spite of bad weather the instructor made the sportsmen continue their training.
6. She felt somebody touch her.
7. We know him to have graduated from the Institute two years ago.
8. We believe cybernetics to be an important branch of modern technology.
9. I heard him mention my sister's name.
10. She saw her son fall and shouted.

### Exercise 4. Compose sentences using the Complex Object.

I want I'd like Do you want I don't want I didn't expect	me him her them us you	to interrupt you. to be interrupted by you. to tell the news. to be told the news. to accept your invitation. to be accepted to the academy. to become a member of the Scientific Society. to go sightseeing. to wash one's hands. to change one's opinion. to express one's opinion. to fight for one's rights. to divide the apples between the children.
---	---------------------------------------	---

**Exercise 5. Read the sentence and write a second one from the words given according to the model.**

*Model:* Jill didn't have any money. (*she / want / Ann / lend her some*)  
– *She wanted Ann to lend her some.*

1. Tom's parents were disappointed when he decided to leave home. (*they / want / Tom / stay with them*) 2. Please don't tell anyone that I'm leaving my job. (*I / not / want / anyone / know*) 3. There's a football match next Saturday between England and Scotland. (*you / want / Scotland / win?*) 4. Unfortunately someone had told Sue that I was going to visit her. (*I / want / it / be a surprise*)

**Exercise 6. Compose sentences with the Complex Object according to the model.**

*Model:* We knew that they would soon come. – *We knew them to come soon.*

1. We knew that they had already arrived. 2. I didn't expect that she would catch the train. 3. She thought that we had influenced their decision. 4. We know that this ancient building was destroyed and rebuilt several times. 5. They expect that these rivers would be soon connected by means of canals. 6. We suppose that this underground system is the best in the world. 7. He expects that great sums of money will be spent on housing construction in this district.

**Exercise 7. Write one sentence instead of the given two using the Complex Object according to the model.**

*Model:* I saw John every day. He often spoke with his girlfriend.  
*I often saw John speak with his girlfriend.*

1. I watched the sun. It rose. 2. I heard him. He sang an English song. 3. We noticed a man. The man cleaned his shoes. 4. He saw two girls. They danced on the stage. 5. She watched the children. They ran about and played in the garden. 6. I saw her every morning. She arranged her hair carefully. 7. Every night we saw our neighbour. He listened to the news. 8. John heard his daughter. She talked loudly. 9. We saw Roger. He crossed the road. 10. They heard their father. He played the piano every night.

**Exercise 8. Join these pairs of sentences, deciding when to use a bare infinitive or –ing.**

1. She crossed the road. I saw her. 2. She was crossing the road. I caught sight of her. 3. Something's burning. I can smell it. 4. They sang a song. I listened to them. 5. She was shouting at the children. I heard her. 6. I watched the man. He bumped into a woman and snatched her handbag. 7. We saw a group of men outside the pub. They were fighting. 8. We saw a man. He threw a brick at the shop window. 9. I heard someone. They broke down the door. 10. I observed a blue car. It was driving very fast towards the motorway. 11. We heard something. People were shouting and screaming. 12. I noticed a woman. She put two tins in her bag and left the store without paying.

**Exercise 9. Translate the sentences using the Complex Object.**

1. Вони очікують, що ви будете на концерті. 2. Я побачила, як таксі зупинилося біля супермаркету. 3. Він хоче, щоб ми розказали йому все. 4. Вона спостерігала, як він вийшов з будинку. 5. Його листи примушували її сміятися. 6. Вона чула, як під'їхала машина. 7. Вона бачила, як Том вийшов з воріт зі своєю сестрою. 8. Я ніколи не чула, щоб він так багато говорив. 9. Він спостерігав, як дружина налила каву та поставила чашку на стіл. 10. Чи хочете ви, щоб я вам допоміг? 11. Я не хочу, щоб ви мені щось розповідали про своїх батьків. 12. Я бачила, що Марі пакувала ящик. 13. Він відійшов та спостерігав, як ми збирали гілки. 14. Ви хочете, щоб я пішла туди зараз? 15. Через деякий час він почув, що двері відкрилися та закрилися.

**Complex Subject**

(Суб'єктний інфінітивний зворот)

<b>Підмет + Дієслово-присудок</b>	<b>Інфінітив</b>
<i>He is said</i> Говорять, що він	<i>to know Chinese very well.</i> дуже добре знає китайську.
<i>MrBrown is expected</i> Очікують, що містер Браун	<i>to come.</i> прийде.

Примітка – після *hear, observe, perceive* та *see* може використовуватися *Present Participle*, який вказує на те, що дія не скінчилась.

*They were seen waiting.* – Бачили, як вони чекали.

Indefinite Infinitive висловлює дію, одночасну з дією присудка.

*He is said to work hard at his English.* – Говорять, що він наполегливо займається англійською мовою.

Continuous Infinitive підкреслює, що дія – це процес, який триває одночасно з дією присудка.

*The weather seems to be improving.* – Здається, що погода покращується.

Perfect Infinitive висловлює дію, яка трапилась раніше, ніж дія присудка.

*The house is said to have been built two hundred years ago.* – Говорять, що цей будинок було збудовано двісті років тому.

Зворот *Complex Subject* вживається, коли присудок висловлений:

• **дієсловами у пасивному стані:** *is believed* (вважають), *is considered* (вважається), *is expected* (очікується), *is supposed* (припускається), *is said* (говорять), *is reported* (повідомляється), *is known* (відомо), *is found* (визнається), *is stated* (заявляється), *is seen* (бачили), *is announced* (оголошується) та ін.

*The device is thought to be very reliable.* – Вагається, що цей прилад дуже надійний.

*This article is expected to be published next month.* – Очікується, що ця стаття буде надрукована у наступному місяці.

• **дієсловами в активному стані:** *seem* (здаватися), *appear* (здаватися), *prove* (виявлятися), *happen*, *chance* (траплятися).

*He seems to know this student well.* – Здається, що він добре знає цього студента.

*I happened to be there at that time.* – Трапилося так, що я був там у той час.

• **прикметниками:** *likely* (вірогідний), *unlikely* (малоймовірний), *certain* (безперечний), *sure* (впевнений).

*They are likely to return on Sunday.* – Певно, вони повернуться у неділю.

*He is sure to pass the exams.* – Без сумніву, він складе іспити.



### **Exercise 10. Translate the sentences.**

1. She seems to know English and French. 2. The weather appears to be improving. 3. Lake Baikal is said to be the deepest in the world. 4. The doctor happened to be there at the time of the accident. 5. He proved to be a good teacher. 6. The English delegation is believed to come at the end of the month. 7. This school is considered to be the best in the town. 8. He is known to have a large collection of pictures. 9. The problem is unlikely to be solved in time. 10. This church appears to be made of wood.

### **Exercise 11. Paraphrase the following sentences using the Complex Subject with the Infinitive.**

*Model:* It is very likely that the prices for these goods will go up again in England. – *The prices for these goods are likely to go up again in England.*

1. It is certain that they will be here on Monday. 2. It is unlikely that the meeting will be postponed. 3. It is sure that they will come here. 4. It is believed that John has arrived in London. 5. It is known that Jack is good at painting. 6. It is reported that the spaceship has landed successfully. 7. It happened that I saw them at the theatre. 8. It seemed that her dinner party went on too long to her, as it did to you. 9. It is supposed that the students have already submitted their term papers. 10. It was said that the performance had been a success.

### **Exercise 12. Translate the sentences using the Complex Subject.**

1. Говорять, що він найкращий лікар у нашому місті. 2. Бачили, як він перегорнув сторінку і почав читати. 3. Чули, як він незабаром піднявся нагору. 4. З'ясувалося, що я його добре знаю. 5. Здавалося, що вони зовсім його забули. 6. Чули, як він грав на роялі та щось співав. 7. Здавалося, що він хотів поставити ще одне запитання, але змінив своє рішення. 8. Очікують, що делегація прибуде завтра. 9. Відомо, що конкуренція підвищує ціни. 10. Здається, він також допомагає іншим студентам. 11. Цілком ймовірно, що вони будуть вдячні за вашу пораду. 12. Сталося так, що ми спізнилися на потяг.

## Revision of Modal Verbs

просимо, пропонуємо	<b>can, could, will, would</b>
радимо, даємо пораду	<b>should</b>
дорікаємо	<b>ought to</b>
дуже впевнені	<b>must</b>
недуже впевнені, сумніваємося	<b>may, might, could</b>
змушені, доводиться	<b>have to</b>
дозволяємо	<b>may</b>
не дозволяємо	<b>must not, can't</b>
наказуємо	<b>must</b>
плануємо	<b>be to</b>

### Exercise 13. Rewrite the following sentences in past and future.

1. I can do this work myself. 2. She can translate the article into Arabic. 3. I can buy a dictionary for you. 4. I must do my exercises. 5. He must be at the Institute at 9 o'clock. 6. You must learn the story by heart. 7. We must walk fast to get to the station in time. 8. She must do it at once. 9. I must wait for him. 10. What the businessmen need to know is how the new developments can be applied to industry.

### Exercise 14. Comment on the meaning of the modal verbs in the following quotations. Choose one of the quotations and write a paragraph in which you explain it through a series of supporting sentences, and make your own judgement about it. Feel free to agree or disagree with the idea.

1. You cannot fool all the people all the time. (*A. Lincoln*) 2. If you don't think about the future, you cannot have one. (*J. Galsworthy*) 3. One half of the world cannot understand the pleasures of the other. (*J. Austen*) 4. Those to whom nothing has ever happened cannot understand the unimportance of events. (*T. Eliot*) 5. Don't part with your illusions. When they are gone, you may still exist, but you have ceased to live. (*M. Twain*) 6. Artists must be sacrificed to their art. Like bees, they must put their lives into the sting they give. (*R. Emerson*) 7. He that climbs a ladder must begin at the first round. (*W. Scott*) 8. When people agree with me I always feel that I must be wrong. (*O. Wilde*) 9. All things must change / To something new, to something strange / Youth comes but once in a lifetime. (*H. Longfellow*) 10. Novelists should never allow themselves to weary

of the study of real life. (*Ch. Bronte*) 11. You shouldn't say it is not good. You should say, you do not like it; and then, you know, you're perfectly safe. (*J. Whistler*) 12. Isn't it strange that I who have written only unpopular books should be such a popular fellow? (*A. Einstein*)

### Modal Verbs:

#### Certainty and Possibility in Present and Past

(Можливість і вірогідність за допомогою модальних дієслів у теперішньому та минулому часах)

Present	Past
<b>Можливість Possibility</b>	
<i>He <u>can</u> win the race.</i> – Він може виграти цю гонку (впевненість 90 %)	
<i>They <u>could</u> still be at school.</i> – Можливо, вони ще у школі. (впевненість 50 %)	<i>She <u>could have been</u> killed in the car crash. (Luckily, she wasn't killed.)</i> – Вона могла загинути в автомобільній аварії. (На щастя, вона не загинула.)
<i>Tom <u>may</u> be studying in his room.</i> – Можливо, Том займається у своїй кімнаті (впевненість 50 %)	<i>He <u>may have</u> spoken to Jenny yesterday.</i> – Можливо, що він поговорив з Дженні вчора.
<i>He <u>might</u> want some more food.</i> – Можливо, йому ще потрібна їжа. (впевненість 40 %)	<i>He <u>might have</u> forgotten.</i> – Можливо, він забув.
<b>Вірогідність Probability</b>	
<i>I <u>will</u> be at home soon.</i> – Скоро я буду вдома (впевненість 100 %)	
<i>Greg <u>should</u> win easily.</i> – Грег з легкістю переможе (впевненість 90 %)	<i>He <u>should have</u> received his prize by now.</i> – Напевно, він вже одержав свій приз.
<i>They <u>ought to</u> be at home by now.</i> – Певно, вони зараз вже вдома (впевненість 90 %)	<i>They <u>ought to have</u> arrived an hour ago.</i> – Цілком ймовірно, що вони прибули додому годину тому.

<b>Логічне припущення</b> <i>Logical Assumptions</i>	
<i>She <u>must</u> be working.</i> – Напевно, вона зараз працює (впевненість 90 %)	<i>She <u>must have been</u> working.</i> – Вона, напевно, працювала.
<i>She <u>can't</u> be over forty.</i> – Не може бути, що їй більше 40 років.	<i>She <u>can't have</u> stolen the money.</i> – Не може бути, що вона вкрала ці гроші.
<i>He <u>couldn't</u> be at work.</i> – Не може бути, що він на роботі.	<i>She <u>couldn't have been</u> at work yesterday.</i> – Не може бути, що вона була на роботі вчора.
<b>Критика</b> <i>Criticism</i>	
<i>You <u>could</u> at least help me.</i> – Ти міг би мені допомогти.	<i>You <u>could have</u> at least helped me last night.</i> – Тобі слід було допомогти мені учора.
	<i>They <u>should have</u> tried harder.</i> – Їм слід було намагатися більше.
	<i>You <u>ought to have</u> behaved yourself yesterday.</i> – Тобі потрібно було б краще поводити себе учора.

**Exercise 15. Translate the following sentences paying attention to the modal predicate.**

Можливість: 1. The train is due at 5 p.m., they may still catch it. 2. They might have returned from the expedition. 3. This question may not have been discussed yesterday. 4. You could hardly have passed him in the street without taking notice of him. 5. I don't think the car can be repaired. 6. It could rain later this evening.

Вірогідність: 1. They left at nine, so they should have arrived by now. 2. This ought to be Pete's book; it certainly isn't mine. 3. Mickey ought to have won by a huge margin. 4. The weather should be fine tomorrow.

Логічне припущення: 1. He is very fit, though he must be at least sixty! 2. It couldn't possibly be a poison. 3. They cannot know what the situation is in the country. 4. If A is bigger than B, and B is bigger than C, then A must be bigger than C. 5. 'We went to Rome last month.' 'That must have been nice.' 6. 'Where can John have put the

watch?’ ‘He can’t have thrown it away.’ 7. That was a bad place to go skiing – you could have broken your leg.

*Кримица:* 1. You should have been nicer to Annie. 2. You could have passed your exam by now. 3. You could ask before you borrow my car. 4. I ought to have phoned Ed this morning, but I forgot.

**Exercise 16. Complete the sentences, putting the verbs in brackets into the correct form.**

1. ‘What are all those people doing with those lights and cameras?’ ‘They (*must / make*) a film’. 2. ‘I wonder how the thief got into our apartment?’ – ‘He (*could / use*) the fire escape or he (*might / climb*) that tree’. 3. ‘I saw Harry waving someone off in a taxi.’ – ‘That (*would / be*) his cousin from Australia.’ 4. ‘It’s five past eleven. Ken and Cathy’s plane (*should / touch down*) in Kennedy Airport right now.’ – ‘Your watch (*must / be*) slow. It’s nearly half past. Their plane already (*will / land*)’. 5. ‘Bring very warm clothes. It (*could / snow*) when we arrive. It (*can / snow*) in the mountains even in summer.’

**Exercise 17. Rewrite the following sentences using the modal verb in brackets. Add a reason to each of the sentences.**

*Model:* I’m sure she’s had a holiday. (*must*)

*She **must** have had a holiday because she is very brown.*

1. I’m sure you didn’t work hard for your exams. (*can’t*) 2. I think they’ve gone to Paris. (*could*) 3. Perhaps I left my umbrella on the train. (*might*) 4. I’m sure he hasn’t bought another new car. (*can’t*) 5. She has probably been on a diet. (*must*) 6. It’s possible they’ve got married in secret. (*could*) 7. I’m sure I haven’t won the lottery. (*can’t*) 8. Perhaps he called while we were out. (*may*)

**Exercise 18. Insert *could, may or might* according to the sense.**

1. I’m so glad the child is safely back. With your careless driving he ... have easily been injured. 2. I shan’t have a moment’s peace until the child is back. He ... have met with an accident. 3. He isn’t back yet. He ... have lost the way. 4. You oughtn’t to have driven that car so fast. You ... have had a serious accident. 5. Sorry you didn’t tell him about our meeting in time. He ... have come.

**Exercise 19. Which of these things could you have done if you had lived a hundred years ago? Which things couldn't you have done? Compose sentences according to the model.**

*Model: A hundred years ago I could have ridden a horse, but I couldn't have flown in an airplane.*

**For ideas:** listened to Beethoven, travelled by train, played computer games, learnt English, gone to the cinema, played chess, listened to The Beatles, read Shakespeare, read Ernest Hemingway, watched television.

**Exercise 20. Change sentences using *ought to have* or *ought not to have* (*should have* or *shouldn't have*) according to the model.**

*Model: When we got to the restaurant there were no free tables. We hadn't reserved one. – We should have reserved a table.*

1. We went for a walk. While we were walking we got hungry but we hadn't brought anything with us to eat. 2. The driver in front stopped suddenly without warning and I drove into the back of his car. It wasn't my fault. 3. The accident happened because Tom was driving on the wrong side of the road. 4. It was silly of John to leave home without telling us. 5. Why didn't you ask for permission? 6. I wish we hadn't stayed so late. 7. Why didn't you go to the doctor's earlier? 8. It's a pity you didn't meet Jenny while you were here. 9. I'm sorry I got so angry about what happened. 10. It would have been better if you had come on your own.

**Exercise 21. Change the following sentences. Instead of modal words expressing supposition use *should* or *ought to* + infinitive according to the model.**

*Model: Probably she is at home by now. – She should (ought to) be at home by now.*

1. If you hurry up you will probably catch up with them. 2. I suppose the weather will continue fine. 3. I believe the book is still on sale, it came out only a few days ago. 4. In all probability the match will be called off, it's raining fast. 5. Now that I'm snowed under with work I hope she won't lay claims on my time.

**Exercise 22. Dramatize the story given below. Retell it in your own words using *must* to express supposition.**

## An Overheard Conversation

The ladies at the club were talking about a conversation they had overheard in the morning between a man and his wife.

‘They must have been at the Zoo,’ said Mrs A., ‘because I heard her mention the *trained deer*.’

‘Goodness me!’ laughed Mrs B. ‘What queer hearing you must have! They were talking about going away and she said, ‘Find out about the *train, dear*.’

‘Well, did you ever?’ exclaimed Mrs C. ‘I am sure they were talking about musicians, for she said a *trained ear* as distinctly as it could be.’

The discussion was beginning to warm up, when in the midst of it the lady herself appeared. They carried their case to her promptly and asked her to settle it.

‘Well, well, you do beat all!’ she explained after hearing each one. ‘I’d been out to the country overnight and I was asking my husband if it *rained here* last night ... .’

## Phrasal Verbs

(Фразові дієслова)

*Jack put the books down on the table.* – Джек кладе книги на стіл.  
(*put smth down* – дієслово з прийменником)

*She’s always putting people down.* – Вона завжди критикує людей.  
(*put smb down* – ідіоматичне фразове дієслово).

### Exercise 23. Translate sentences paying attention to phrasal verbs. Consult your dictionary.

1. If you are seen stealing that car the police will *be after* you.
2. Sheila *broke off* her engagement last week.
3. By stealing, Mark *brought about* his dismissal from work.
4. We often *eat out*.
5. The two Germans *played off* for a place in the final.
6. They *called off* the meeting.
7. This situation *calls for* immediate action.
8. They *turned down* my application.
9. Why did you let James *talk you into* this crazy scheme?
10. Please *draw back* from the edge of the cliff.
11. I *dropped out* of school and got a job.
12. He has tried *to give up* smoking twice.
13. They were forced *to give in* to enemy.

**Exercise 24. Read the article and decide which phrasal verb describes the following meaning:** *has become popular; returned; were worthwhile; learn information; stop trying; improved.*

### **The Art of Feng Shui**

Ho Da-ming's new restaurant was failing. His customers rarely *came back*. Why? Mr Ho contacted a feng shui consultant *to find out*. Feng shui (meaning 'wind and water') is the ancient Chinese art of placing things in your surroundings. According to this art, the arrangement of furniture, doors and windows affects our health, wealth and happiness. Mr Ho was concerned about his business but he didn't *give up*. Following the consultant's advice, he remodelled and redecorated his restaurant. His actions *paid off*. Soon business *picked up* and Mr Ho became rich. 'It was the best decision I ever made,' he says happily. And he isn't alone in his enthusiasm. Feng shui has caught on with modern architects and homeowners everywhere.

**Exercise 25. Complete this student's diary entry with the correct particles.**

I've just finished reading an article about feng shui. At the end, the author suggests sitting (*down, up*) in your home and thinking about how your surroundings make you feel.

So, today when I got (*up, back*) from university, I tried it. I noticed that my flat is really quite dark and it makes me feel down. I think with the addition of some lights, I'd cheer (*away, up*) a lot. I've come (*out, up*) with other ideas, too.

My flat is small but I think it will look more spacious if I just tidy (*out, up*) more often. Putting up some more shelves for my books might work (*down, out*) well. With just a few small changes, I could end (*out, up*) feeling happier in my own home.

It's certainly worth trying (*on, out*)!

## **READING COMPREHENSION**

### **Active Vocabulary**

**define** – *v* визначати; *definition* – *n* визначення

**conveyance** – *n* транспортування, перевезення; *convey* – *v* перевозити

**primarily** – *adv* на початку, перш за все; *syn firstly, basically*



**overcome** – *v* перебороти, подолати  
**mention** – *v* згадувати; *n* згадування, посилення  
**quantity** – *n* кількість  
**input** – *n* внесок, вкладання  
**output** – *n* продукція, випуск  
**revenue** – *n* дохід; *syn profit*  
**meet demands** – відповідати вимогам; *syn meet commitments*  
**forecast** – *v* прогнозувати, передбачати; *syn predict, foresee*  
**labour productivity** – продуктивність праці  
**wage(s)** – заробітна плата  
**manager** – керівник; *senior manager* – головний керівник; *management* – *n* керівництво; *middle management* – керівництво середнього рівня; *first-line management* – провідне керівництво  
**department** – *n* відділ, структурна одиниця; *personnel department* – відділ кадрів; *accounting department* – бухгалтерський відділ  
**be responsible for** – відповідати за; *responsibility* – *n* відповідальність  
**cope with** – *v* займатися, мати справу з, справлятися з; *syn deal with*  
**authority** – *n* керівництво, влада, інструкція  
**issue** – *n* питання, проблема, предмет дискусії; *syn question, subject*  
**financial statement** – фінансовий звіт  
**accountant** – *n* бухгалтер  
**cover** – *v* охоплювати, покривати  
**promotion** – *n* просування (товару, по службі); *v promote; n promoter* – людина, яка чомусь сприяє, промоутер  
**consumer behaviour** – поведінка споживача  
**steadily** – *adv* стійко, міцно, рівномірно; *adj steady*  
**satisfaction** – *n* задоволення, сатисфакція; *satisfy* – *v* задовольняти  
**objective** – *n* ціль, мета; *syn goal, target*  
**awareness** – *n* інформованість, обізнаність  
**ultimate** – *adj* основний, кінцевий, остаточний  
**overcrowd** – *v* переповняти, накопичуватися  
**enhance** – *v* поліпшувати, покращувати  
**end-to-end service** – наскрізне обслуговування, обслуговування від відправника до одержувача  
**capital** – *n* капітал, затрати, засоби; **fixed capital** – основний капітал; **working capital** – оборотний капітал; **capital resources** – власні фонди компанії

## IRREGULAR VERBS

<i>Infinitive</i>	<i>Simple Past</i>	<i>Past Participle</i>	<i>Translation</i>
hide	hid	hidden	ховати(ся)
hit	hit	hit	ударяти
lie	lay	lain	лежати, бути розташованим
light	lit/lighted	lit/lighted	освітлювати
sink	sank	sunk	опускатися, падати
strike	struck	struck	ударяти(ся)
throw	threw	thrown	кидати
wake	woke	waken	будити

### Exercise 26. Find synonyms among the following words.

Conveyance, accuracy, to shut, to require, an idea, transfer, district, punctuality, to involve, output, to overcome, locality, to enhance, profit, to provide, to conquer, primarily, to supply, commitment, productivity, benefit, to close, efficiency, production, contribution, obligation, overpopulate, to entail, a concept, to demand, input, overcrowd, to improve, essentially.

### Exercise 27. Fill each gap in the sentences below with the correct form of the word in *italics* print above it.

*profit*

1. We may witness a decline in company ... . 2. Nobody ... by this transaction. 3. The advertising campaign proved very ... .

*consume*

1. A smaller vehicle will ... less fuel. 2. It will offer a wider choice of goods for the ... . 3. Vigorous exercise increases oxygen ... .

*promote*

1. A person who arranges and advertises box events is called a boxing ... . 2. I want a job with good prospects for ... . 3. Tomorrow they will hold a meeting ... trade between Taiwan and the U.K.

### Exercise 28. Translate the word combinations from the text.

Conveyance of passengers and goods from one locality to another, cross-disciplinary study, meet demands for both goods and services, operating a business, traffic forecasting, capital investments, labour productivity, to cope with entirely on their own, to pass 'down the

line' to others, to interpret the figures, the financial strength of the business, market is steadily growing, higher customer's satisfaction, a dynamic role, a clearly improved cost structure, to gain a greater market share.

**Exercise 29. Translate the sentences with the following verbs.**

overcome: 1. He struggled to overcome his shyness. 2. The engineer was working on the freezer when he was overcome by gas. 3. Charles was overcome with grief. 4. Australia overcame the Netherlands 2:1.

compete: 1. The Renault Clio competes against such cars as the Peugeot 206. 2. She and her sister are always competing for attention. 3. How many runners will be competing in the marathon? 4. Melinda was plain and knew she couldn't compete with her sister where boys were concerned.

involve: 1. What will the job involve? 2. These changes will involve everyone of the staff. 3. Try to involve as many children as possible in the game. 4. Reilly involves himself in every aspect of his company's business.

satisfy: 1. Nothing I did would ever satisfy my father. 2. The program is designed to satisfy the needs of adult learners. 3. Having satisfied herself that no one was there, she closed the door. 4. Have you satisfied all the requirements for the general degree?

*Text*

**RAILWAY TRANSPORT ECONOMICS**

(1) Transport in general may be defined as the conveyance of passengers and goods from one locality to another. Transport is primarily a function of distance, and when considered by an economist it is the overcoming of distance for a profit. Transport economics is a cross-disciplinary study linking civil engineering and economics.

(2) Transport economics as any other branch of economics deals with several main concepts. Mention just a few of them. The quantity of goods that buyers wish to buy at certain price is *demand*. The quantity of goods that sellers wish to sell at each price is *supply*. Everything that is put into production process, such as land, labour, or raw materials is the *input*. Everything that is produced is the *output*. The

revenue from selling the output minus the costs of inputs used is *profit*. The person or organization with the demand is the *buyer*, or *customer*. The person or organization that meets demand for both goods and services is the *seller*, or *supplier*. Operating a business requires an investment of resources. Resources include money, time, skill, experience, and work.

(3) Railway transport economists have to solve different problems connected with traffic forecasting, capital investments, labour productivity, wages and financing. Railway transport is a huge complex system and as any organization, whether small or large, has to be managed. The main responsibility of senior managers is decision-making. These decisions are connected with planning, organizing, directing and controlling the work to be done. Any organization is usually divided into a number of departments, each being responsible for a specific range of work, such as finance, personnel, marketing, passenger and freight services and others. The amount of work involved in running a large business is usually too much for the senior managers to cope with entirely on their own. This means that responsibilities, authority and duties have to be passed ‘down the line’ to others – i.e. to middle management and first-line management. This is known as *delegation*<sup>1</sup>.

(4) Probably there are two main issues that the managers deal with. First, whether the business is operating at a profit; and second, whether the business will be able to meet its commitment, and so not to be closed down due to lack of funds. Therefore, it is important to record and present financial information, which is the responsibility of the accounting department headed by the finance manager. At specific intervals, the information is summarized into *financial statements*. Accountants then interpret the figures to determine the financial strength of the business. Managers are mainly concerned with two accounting documents – *the balance sheet*<sup>2</sup> and *the profit and loss account*<sup>3</sup>.

(5) Another activity that is covered by transport economics is *marketing*. The marketing function involves market research, distribution, pricing, advertising, promotion and selling. It is also important to forecast changes in rail traffic and study consumer behaviour. Rail’s position in the transportation market is steadily

growing but there will be no future without higher customer's satisfaction. Competition has entered the field of comfort, time and price. Railways have to develop a stronger customer focus<sup>4</sup> if they want to play a dynamic role in a future multimodal transport system. Railways can enter into this competition with other modes of transport only by providing new offers and a clearly improved cost structure. The objective is to gain a greater market share and to make profits. High-speed rail may serve as a good example of effective competition against air by providing low-cost models for relatively short (up to 5 hours) journeys.

(6) One of the recent but most important departments in railway business is railway *logistics*. Logistics experts optimise a steady flow of goods through a network of transportation links and storage nodes<sup>5</sup>, and coordinate their work. Today there is a growing awareness of the benefits of integrating one transport mode with another, and it is logistics that organizes this process, and provides the wider range of services for passengers.

(7) The ultimate goal of any railway department whether technical or non-technical is the highest profitability and competitiveness, increasing passenger and freight capacity, improving punctuality, reducing overcrowding, enhancing safety, providing end-to-end international transport services and others. Transport economics may contribute to this by constant investments into the maintenance of infrastructure and rolling stock, by successful management, involvement of private capital, effective use of fixed and working capital, saving operating and capital resources etc.

<sup>1</sup> *delegation* – делегування, передача повноважень

<sup>2</sup> *balance sheet* – бухгалтерський баланс

<sup>3</sup> *profit and loss account* – рахунок прибутків та збитків

<sup>4</sup> *to develop a stronger customer focus* – приділяти більше уваги пасажиром

<sup>5</sup> *nodes* – склади, сховища

**Exercise 30. Answer the following questions according to the text.**

1. Give one of the definitions of *transport*. 2. What is the peculiarity of transport economics study? 3. Enumerate some major concepts of economics and give their definitions. 4. What are the main branches of

transport economics mentioned in the text? 5. What are the main problems transport economists have to solve? 6. Why is it important to divide large organizations into departments? What kind of departments do you know? 7. How can you define the process of delegation? What is its essential role? 8. What questions are of primary importance for any manager? And which way can they find answers to them? 9. What activities do transport logistics experts deal with? 10. What are some goals of railway departments regarding better passenger services? Better freight services?

**Exercise 31. Find English equivalents.**

Перш за все, цивільне будівництво, сировина, заробітні плати та фінансування, збирати інформацію про ринок, відповідальність головних керівників, певний спектр роботи, робота з персоналом, керування великим підприємством, повністю самостійно, відповідальність, влада та обов'язки, закриватися з приводу нестачі коштів, бухгалтерський відділ, реалізовувати ідеї.

**Exercise 32. Choose the appropriate words in brackets.**

1. They solve different problems (*connect, connected, connecting*) with traffic forecasting. 2. It is of primary importance to give (*constructed, constructing, constructive*) answer to these questions. 3. Another activity that is (*cover, covers, covered*) by transport economics is marketing. 4. All the measures are used to satisfy (*organization, organize, organizational*) goals. 5. The ultimate goal is the highest (*profitable, profitless, profitability*).

**Exercise 33. Match words with their definitions.**

<i>locality</i>	the quantity of a good that buyers wish to buy at each price
<i>concept</i>	the quantity of a good that sellers wish to sell at each price
<i>demand</i>	an activity intended to help sell a product
<i>delegation</i>	a geographical place
<i>supply</i>	an abstract general notion
<i>promotion</i>	someone whose job is to deal with part or all of a company or other organization
<i>to satisfy</i>	arriving, happening, or being done at exactly the time that has been arranged
<i>to predict</i>	to make someone feel pleased by doing what they want

<i>manager</i>	to say that something will happen, before it happens
<i>punctual</i>	the process of giving power or work to someone else so that they are responsible for part of what you normally do

**Exercise 34. Complete the text choosing the correct option given below.**

*Supplementary text A*

### **LOGISTICS ON THE MOVE**

*A new breed of logistics operator takes advantage  
of new technology to create new markets*

Logistics is a word most often seen on the side of trucks and is therefore mostly associated with the <sup>1)</sup> \_\_\_\_\_ of goods from one place to another. But it has a bigger meaning, the management of the flow of material through an organization from <sup>2)</sup> \_\_\_\_\_ materials to finished goods. It might sound a simple enough business moving things around but it is growing more complex as new technology and greater use of the <sup>3)</sup> \_\_\_\_\_ open new ways of passing around <sup>4)</sup> \_\_\_\_\_ and selling products. This has opened up many new <sup>5)</sup> \_\_\_\_\_ for the logistics industry.

E-commerce has encouraged a new generation of logistics <sup>6)</sup> \_\_\_\_\_ to set up new companies. When you first <sup>7)</sup> \_\_\_\_\_ a new e-business it is cheaper and more efficient to outsource the packing and delivery of products. It also reduces the initial investment and <sup>8)</sup> \_\_\_\_\_ factor in setting up a new business.

Good logistics also plays an important role in reducing the costly inventory problems of over <sup>9)</sup> \_\_\_\_\_ and guaranteeing that there are no interruptions in the supply <sup>10)</sup> \_\_\_\_\_.

*1) travel, transport, export; 2) raw, basic, component; 3) email, software, internet; 4) news, stories, information; 5) ways, markets, products; 6) entrepreneurs, engineers, businessmen; 7) begin, launch, commence; 8) inventory, warehouse, materials; 9) filling, stocking, supplying; 10) links, flow, chain.*

**Exercise 35. Think of the form of transport you would choose for the following consignments and why?**

1. A large consignment of cars from Hamburg to Dresden. 2. A small consignment of flour from Wales to London. 3. A consignment of diamonds from Cape Town to Cairo. 4. A large consignment of coal from Sheffield to Leeds (both in the north of England). 5. A cargo of bananas from the Caribbean to Dublin.

**Exercise 36. Compare rail and air transport. Use the information given.**

*Rail transportation*

*Advantages:*

- virtually all types of cargo can be transported;
- virtually any distance can be covered;
- large quantities can be transported.

*Disadvantages:*

- may be affected by strikes;
- a relatively high risk of theft.

*Air transportation*

*Advantages:*

- fast;
- a secure form of transport, which means that insurance costs are low;
- no limitation as to distance.

*Disadvantages:*

- relatively expensive;
- subject to delays and strikes;
- not practical for short distances;
- may be necessary to send the goods some distance to reach the cargo terminal of an airport.

**Exercise 37. Match the words connected with advertising with their meanings.**

*sponsorship* ▪ *commercial (n)* ▪ *promote* ▪ *misleading slogan* ▪ *endorse* ▪ *logo*

1) an advert on TV or radio; 2) financial support a company gives in order to get publicity for themselves; 3) a short phrase that is easy to remember; 4) to say publicly that you support or approve of something; 5) giving the wrong idea or impression; 6) special design / symbol that a company puts on all its products or adverts; 7) to try to sell a product, e.g. by special advertising.



**Exercise 38. Read the dialogue and choose the correct answer.**

A: OK, let's brainstorm how we're going to *promote* / *endorse* this product.

B: Well, we could get a famous celebrity like David Beckham to endorse it.

A: I think that would be much too expensive. *Commercial* / *Sponsorship* of a TV programme would also cost a lot. And a TV *logo* / *commercial* is out for the same reason. I've seen some great TV shots which are visually beautiful and really *eye-catching* / *shocking*, often set in romantic or *dull* / *exotic* locations. But I don't think they've been very *effective* / *witty* as people can't remember the product they're advertising.

B: I agree, but we don't want something *catchy* / *dull* and boring. How about advertising on the radio – would the budget run to that?

A: Yes, we could stretch to that.

B: And would you like something witty and *eye-catching* / *catchy*?

A: Maybe. I want something new and *dull* / *original*. But most importantly, it must be *persuasive* / *misleading*. It must get people to buy the product.

**Exercise 39**

**a) read the text and write down the different ways of advertising methods mentioned.**

*Supplementary text B*

**ADVERTISING THEN AND NOW**

Most advertising in ancient times was word-of-mouth, that is, people liked something and told others about it. But even then, people advertised by putting inscriptions on walls or using papyrus, for example to display political slogans, to offer household goods for sale or to advertise things they had lost or found. Many traces of these advertisements have been found in Rome, Greece, in the ruins of Pompeii, in parts of Asia, Africa and South America.

Printing developed in the 15<sup>th</sup> and 16<sup>th</sup> centuries, and this increased the forms of advertising. Handbills – small printed notices and advertisements – became common, then, by the 17<sup>th</sup> century, advertisements started appearing in weekly newspapers in England, including classified adverts for personal goods and services. In the

19<sup>th</sup> century mail order catalogues appeared, promoting all kinds of goods.

Finally, the 1960s were a key period in the development of advertising. Advertisements became more creative and more interesting. Also, they began to draw attention to the ‘unique selling points’, the USPs of products. These are the qualities that make a product different from competitors’ products.

These days, advertisers have come up with new ways of promoting their products. For example, product placement is now common. This is advertising in TV programmes or films by having a character, preferably played by a famous actor, use a particular product. For example, Tom Cruise’s character in the movie, *Minority Report*, had a computer with the *Nokia* logo on it, and his watch was clearly made by *Bulgari*. James Bond movies are, in some respect, one long advert for vodka, watches and cars. Twenty companies will see their products in the new Bond film, having paid \$ 70 m (£ 44 m) for the privilege. 007 has changed his vodka brand and ditched his *Rolex* watch, and, after driving *BMW*s in his last three films, he is back behind the wheel of an *Aston Martin*.

TV commercials are a very effective medium for advertisers, though these are very expensive. If an organization wants to have a 30-second TV advert during the annual Superbowl game in the United States, they have to pay about 2.5 million.

Perhaps the most interesting development is the use of famous personalities to endorse a product. The basketball player, Michael Jordan, endorsed *Nike* products and wore them while playing. David Beckham, the footballer, endorsed Police sunglasses.

Getting well-known personalities to endorse a product can be very expensive, but endorsements certainly increase a product’s sales, especially if the personality has a positive image in the eyes of the public.

**b) find words and phrases in the text that mean the following:**

1) passing messages from one person to another orally; 2) a large notice or picture to advertise something; 3) a colourful image on stone; 4) small notices and advertisements; 5) a small advert in a newspaper to buy or sell something; 6) buying goods from a company

that sends them by post; 7) advertising a product by putting it in a film or a TV programme; 8) use of a product by a well-known person who says they like it.

**c) answer the following questions.**

1. What sort of things were advertised in ancient times and how? 2. What effect did printing have on advertising? 3. What is a USP? Why is it important for a new product to have a USP? 4. What are the three effective ways of advertising nowadays?

**Exercise 40**

**a) read and translate the text.**

*Supplementary text C*

**REVOLUTION IN TICKETING**

(1) A ‘ticketing revolution’ with electronic smartcards replacing traditional paper tickets for bus and train journeys is now well under way all over the world. Automatic fare collection (AFC) is a response to the need for fast control and fast money transfer to improve the flow of passengers through a public transport network.

Seamless payment is the need of the hour. Ultimately, people can travel to school or work, visit a leisure centre, borrow a book from the library and then take a train home, without ever needing to carry cash. A single smart card will enable the payment of fares for multiple modes of transport: the Metro, the monorail, buses, trams and the suburban railway.

(2) Sized like a credit card, such smart cards are embedded with a microchip with details of the holder and an electronic purse with details of money. When the commuter enters a train or a bus, he can hold the card close to the reader in a contactless system.

Smart cards hold much more information than a magnetic stripe, and can be also used outside the mass transit systems for which they were designed, for instance, as ‘electronic purses’. In Hong Kong, for example, car parking can be paid for by a debit from a smart card – and the same card will also serve as a ticket on the Mass Transit Railway.

(3) While smart cards are a fairly new concept in the United States, they have been widely used in Europe for a decade or more and now are spreading rapidly in Asia.

In Netherlands the multimodal contactless e-ticketing system is being introduced on a national scale. The system uses a rechargeable smartcard enabling passengers to move easily between all forms of public transport: trains, buses, trams, metros and ferries. Passengers no longer need to queue to buy a ticket or pass through a gate.

(4) Seamless travel on one ticket throughout the country by 2020 is the goal set by the government of Great Britain. The *Oyster* card is a form of electronic ticketing used on public transport within the Greater London area of the United Kingdom. The card was first issued to the public in 2003 with a limited range of functions. The extension of Oyster from just 60 rail stations to over 300 marks a massive step towards a fully integrated ticketing system in London, enabling passengers to move easily between rail, Tube, Docklands Light Railway, tram and bus .

(5) Another way of using an Oyster is to ‘pay as you go’. This means you put a cash amount on your card (you can do this at most Tube stations) and use it until it runs out. Every time you touch the card to one of the electronic readers it will tell you how much you have left on your card so you know when you have to top-up. This way of travelling is especially handy when you first arrive in London and are unsure where your day will take you. As long as you have money on your Oyster you can hop on the Tube or bus as you please for a lower price than if you were to pay cash. Oyster cards also have daily price capping which means you are charged the appropriate Oyster fare for each single journey you make. Then, if you make several journeys on the same day, once the total cost of these journeys reaches a cap, any further journeys you make that day will be free, unless you travel beyond the zone(s) covered by your original cap.

The online agent Trainline reckons that over 50 per cent of all its rail ticketing will be based upon Smartcard technology by the time of the London Olympics in 2012. Use is encouraged by offering substantially cheaper fares on Oyster than payment with cash. Passengers will be able to reload their Trainline Smartcards through their PCs or laptops or via a “Smart target” at the station. The ticket is

then validated in the normal way by Smart-enabled ticket gates or by onboard staff.

(6) The benefits of smart ticketing are there for all to see – quicker, easier and potentially better value journeys on trains, buses and trams. An interoperable electronic ticketing system offers the public greater freedom and seamless journeys, as well as collaboration with other service providers and banks.

**b) answer the questions to the text.**

1. What is a smart card? Where can it be used? 2. What are the advantages of e-ticketing? 3. Which smart card is being introduced in Great Britain? How does it work? 4. What is being done to encourage travellers to use smart cards?

**c) scan the text again to give definitions to the following words:**

*Oyster, pay as you go, daily price capping, Trainline, AFC, seamless payment.*

**Exercise 41. Divide into two groups of opponents and proponents of smart cards in Ukraine. Give your arguments for and against. You may use the facts from the text above to convince your counterpart.**

## WORD BUILDING

### Exercise 42

**a) express the following in one word.**

*Model: with pale cheeks → (pale + cheek) + -ed = pale-cheeked*

With a false bottom, with a narrow waist, with a low ceiling, with a mind of a child, with a straight back, with marble columns, with broad shoulders, with black eyes.

**b) express the following in one word:**

*Model: tested by time → time-tested*

*filled with smoke → smoke-filled*

Covered with mud, lined with books, stricken with panic, stained with tears, beaten by rain, driven by wind, struck by thunder, bound by duty.

**c) translate the following using the stems given.**

З непокритою головою (*bare, head*); у м'якій шляпі (*soft, hat*); товстошкірий (*thick, skin*); розшитий шовком (*silk, embroider*); обмерзлий (*frost, bite*); скований льодом (*ice, grip*); той, що пахне травною (*grass, scent*); чотириповерховий (*four, story*); омиті дощем (*rain, wash*); усипані коштовностями (*jewel, litter*); у білих халатах (*white, overall*); зроблений руками (*hand, make*).

**Exercise 43. Express the following in one word denoting the doer of the action.**

*Model: one who sells matches → a matchseller*

One who drives a lorry, one who owns houses, one who wishes well, one who does wrong, one who rises early, smth. that opens letters, smth. that washes the floor, smth. that kills noise, smth. that locates sound, smth. that kills pain.

**Exercise 44. Translate the terms composed of *self* + *Present (Past) Participle*.**

*Model: self-aiming anti-aircraft missile – самонавідна зенітна ракета.*

Self-directing missile, self-focusing device, self-supported mechanism, self-remaining reactor, self-destroying booster, self-propelled bouncer, self-cooled device, self-recording device, self-loaded gun, self-made man.

**Exercise 45. Hybrid words or Blends.** A portmanteaux word is a new expression which combines two words and their meanings into one.

**smog** – from smoke and fog

**automagical** – from automatic and magical

**crunk** – from crazy and drunk

**dancercise** – from dance and exercise

**dramedy** – from drama and comedy

**fantabulous** – from fantastic and fabulous

**webzine** – from web and magazine

**scort** – from skirt and short

**Do you know which two words have been combined to create the following expressions? Explain the meaning of the following portmanteau words and then put each in its correct sentence below.**

*Swatch, bedsit, brunch, Chunnel, Oxbridge, Interpol, Oxfam, Eurovision*

1. The ... Song Contest is watched by millions of viewers from Portugal to Finland, from Greece to Iceland, and in other countries.
2. The ... organization, which has the aim of relieving hunger throughout the world, was found in Oxford.
3. The International Police Commission, with headquarters in Paris, is usually referred to as ... .
4. If you get up late at the week-end, you might decide to have ... in the middle of the morning.
5. The British and French governments have taken the first steps towards building a ... to link the two countries.
6. In the past a university degree from ... was a great advantage to anyone wanting a career in the diplomatic service.
7. There's a certain kind of Swiss watch called a ... .
8. She can't afford a proper flat. She rents a ... .

## UNIT 10

*Grammar:* Subjunctive Mood

Three Types of Conditional Sentences

Emphasis

Compound Conjunctions

Compound Prepositions

*Text:* The Future of Rail Transportation

*Supplementary text A:* Four Eurasian Corridors

*Supplementary text B:* China to Attempt New World Speed Record

*Supplementary text C:* Faster Than Airplane

### READING RULES

<b>A a</b>	[ɒ]	після <b>w, qu</b> у закритому складі	watch, quality
	[ɔ:]	після <b>w, qu</b> у закритому складі перед <b>r</b>	war, quarter
	[ɔ:]	перед <b>l</b> + приголосний	call, also, fall
	[ɔ:]	у сполученні з <b>u</b>	autumn
	[ɔ:]	перед <b>w</b>	law, saw

**Exercise 1. Read the following words.**

quantity	quarter	always	auction	paw
quality	warp	tall	bauxite	draw
watch	warn	false	August	awful
wasp	warm	small	cause	awkward
want	warning	hall	because	saw
wash	ward	bald	fault	raw
wand	reward	salt	auto	flaw
watt	war	already	Paul	lawn

<b>X x</b>	[gz]	перед наголошеним голосним	exam, exist
	[ks]	в інших випадках	box, next

**Exercise 2. Read the following words.**

Example, except, expect, exact, exhibit, excellent, text, six, fix, tax, excuse, affix, axes, axe, fix, exam, index, Duplex, complex, fix, wax, exaggerate.



## GRAMMAR

### Subjunctive Mood

(УМОВНИЙ СПОСІБ)

*Subjunctive Mood* показує, що дія вважається не як реальний факт, а як бажана, припущена, умовна, або не відповідає реальності. Існує чотири основні форми утворення *Subjunctive Mood*:

**1) would + infinitive;**

*I would tell you if I knew.* – Я б тобі розказав, якби знав.

**2) should + infinitive;**

*It's necessary that he should go there.* – Необхідно, щоб він туди пішов.

**3) Past Indefinite або Past Perfect;**

*He looks as if he won a million.* – Він виглядає, нібито виграв мільйон.

*She wishes she had gone to university.* – На жаль, вона не пішла до університету.

**4) Infinitive без частки to.**

*They recommended that he continue the experiment.* – Вони рекомендували йому продовжити експеримент.

*It is necessary that the engine be light and efficient.* – Необхідно, щоб двигун був легкий та ефективний.

### Вживання Subjunctive Mood

В умовних реченнях	<i>If he <u>were</u> not busy now, he <u>would do</u> it.</i> – Якби він не був би таким зайнятим, він зробив би це.
У зворотах: <i>it is necessary (essential, important etc.) that smb (should) do smth</i>	<i>It is necessary that he <u>be</u> there tomorrow.</i> – Необхідно, щоб він був там завтра.
В додаткових реченнях після дієслів <i>suggest</i> – пропонувати, <i>demand</i> – вимагати, <i>order</i> – наказувати, <i>insist</i> – наполягати та ін.	<i>They <u>suggested</u> that we (should) <u>meet</u> in the park.</i> – Вони запропонували, що ми зустрінемося у парку. <i>I <u>insist</u> that the boy (should) <u>stay</u> at home.</i> – Я наполягаю на тому, щоб хлопчик залишився вдома.

Після порівняльних сполучників <i>as if, as though</i> – нібито	<i>She loved him as if he were her own son.</i> – Вона любила його, нібито він був її сином.
Після сполучників <i>so that</i> – для того щоб, <i>lest</i> – щоб не	<i>I want to put down your address lest I should forget it.</i> – Я хочу записати вашу адресу, щоб не забути.
Після дієслова <i>wish</i> – бажати та сполучення <i>if only</i> – якби (тільки)	<i>I wish I spoke French.</i> – Як би мені хотілось говорити французькою. <i>I wish you hadn't said that.</i> – На жаль, ти це сказав. <i>If only I knew more people!</i> – Якби ж я знав більше людей!
Для висловлення припущення або побажання ( <i>would, should, might</i> )	<i>It would be very nice of you.</i> – Це було б дуже мило з Вашого боку. <i>Atomic energy might be used for this purpose.</i> – Атомна енергія могла б використатися для цих цілей.
У лозунгах та закликах	<i>Long live peace in the whole world!</i> – Хай буде мир у всьому світі! <i>Be it so!</i> – Хай так буде!

### Exercise 3. Translate the sentences.

1. *I wish I were an astronaut.* 2. Send him a telegram *so that* he should be able to arrive in time. 3. He *demanded* that the money should be paid at once. 4. He *insisted* that I should accompany her. 5. *It is necessary* that you should go there at once. 6. *I wish I was better looking.* 7. *If only I knew more people!* 8. Now she *wishes* she had gone to university. 9. I've bought a chicken *in case* your mother stays for lunch. 10. Our *advice* is that the company invest in new equipment. 11. *It is important* that Helen be present when we sign the papers. 12. *It was essential* that James should write to his uncle as soon as possible.

### Exercise 4. Express the same using the Subjunctive Mood. Do this in two ways, one with the Infinitive and one with *should*.

*Model:* 'Why don't you study math at evening class?' she said to him.

She suggested *that he study math at evening class.*

She suggested *that he should study math at evening class.*

1. 'Let's finish the meeting on time,' he said to them. He proposed ... .
2. 'If I were you, I'd have the beef,' said the waiter. The waiter recommended ... .
3. 'The minutes of the meeting must be read,' said the Chairperson. The Chairperson insisted ... .
4. The contract must be signed by all parties. It is important ... .
5. The candidates must have a thorough medical examination. It is essential ... .
6. 'I would like a full inquiry to take place,' said the Prime Minister. The PM requested ... .

### Wishing about the Present and Past

<i>PRESENT FACTS</i>	<i>WISHES ABOUT THE PRESENT</i>
<p><i>I'm small.</i> – Я маленький.</p> <p><i>I can't ski.</i> – Я не вмію кататися на лижах.</p> <p><i>We live in the city.</i> – Я живу в місті.</p>	<p><i>I wish I wasn't small.</i> – Як жаль, що я маленький. (Як би мені хотілося не бути маленьким.)</p> <p><i>If only I were taller.</i> – Якщо б я тільки був вищий.</p> <p><i>I wish I could ski.</i> – Як би мені хотілося вміти кататися на лижах.</p> <p><i>We wish we lived in the country.</i> – На жаль, ми не жили у передмісті.</p> <p><i>If only we didn't live in the city.</i> – Якщо б ми тільки жили у передмісті.</p>
<i>PAST FACTS</i>	<i>WISHES ABOUT THE PAST</i>
<p><i>I wasn't happy at school.</i> – Я не був щасливим у школі.</p> <p><i>He didn't pass his driving test.</i> – Він не склав іспит на права.</p>	<p><i>I wish I had been happy at school.</i> – На жаль, я не був щасливим у школі.</p> <p><i>If only I'd gone to a different school.</i> – Якщо б я тільки пішов до іншої школи.</p> <p><i>He wishes he'd passed his test.</i> – На жаль, він не склав іспит на права.</p>

### Exercise 5. Change the following sentences using *I wish*.

*Model:* It's a pity you are ill. – *I wish you were not ill.*

1. Unfortunately they won't return before Christmas.
2. The student was sorry he had not studied the material better and had shown such poor knowledge at the examination.
3. It's a pity that you did not send for us last night.
4. It is a pity you are not with us these days.
5. My

friend regrets not having entered the university. 6. He was sorry not to have had enough time to finish his test paper. 7. It's a pity we won't be able to reach home before teatime. 8. I am sorry I made you upset by telling you this news. 9. What a pity you don't know enough physics!

**Exercise 6. Put the beginnings and ends together, using *I wish + Past Perfect*.**

*Model: I wish I'd been nicer to my sister when we were kids.*

BEGINNINGS	ENDS
(choose)	a better school.
(do) more travelling	a different career.
(go) to	harder at the university.
(go) to bed earlier	last night.
(not get married)	my teeth.
(not tell) him	the truth.
(save) money	when I had the chance.
(study)	when I was eighteen.
(take better care of)	when I was earning a good salary.

**Exercise 7. Say what you would rather do in the following situations.**

*Model: If you are thirsty, would you rather have a hot drink or a cold drink? – I'd rather have a cold drink.*

1. If you could choose between travelling by plane or by train, which would you rather do? 2. What do you want to watch on TV, the news or the football match? 3. In a restaurant you have to choose between mashed potatoes or French fries. 4. If you were free to choose what would you become: an actor or an engineer? 5. How would you prefer to go to Germany: by plane or by high-speed train? 6. What do you like to read: a science fiction or a horror story?

**Exercise 8. Translate the following sentences using *I wish*.**

1. Як би мені хотілося бути зараз на півдні. 2. Як би мені хотілося бути зараз у молодіжному центрі. 3. На жаль, я тоді не встиг відвідати моїх рідних. 4. На жаль, я не переклав цю статтю минулого тижня. 5. На жаль, я не подзвонив Вам учора. 6. На жаль, я не маю можливості поїхати у круїз навколо світу. 7. На жаль, у мене не було квитка у середу. 8. На жаль, я не зміг

зателефонувати моїм батькам учора. 9. Як би мені хотілося злітати на інші планети. 10. Як би мені хотілося побувати на міжнародному чемпіонаті з тенісу.

### Three Types of Conditional Sentences

(Три типи умовних речень)

<p><b>I.</b> Умовне речення з реальною умовою (дія, що відбудеться за деяких обставин у теперішньому чи майбутньому часі)</p>	<p><b>if + Present Simple, will + Infinitive</b> (без <i>to</i>)</p> <p><i>If the weather <u>keeps</u> fine, we <u>'ll go</u> to the country.</i> – Якщо погода залишатиметься гарною, ми поїдемо у передмістя.</p>
<p><b>II.</b> Умовне речення з малоймовірною умовою (дія, що могла б відбутися у теперішньому чи майбутньому)</p>	<p><b>if + Past Simple, would (could, might) + Infinitive</b></p> <p><i>If he <u>had</u> money, he <u>would pay</u> you.</i> – Якщо у нього були б гроші, він би вам заплатив.  <i>If I <u>were</u> President, I <u>would make</u> everybody happy.</i> – Якщо б я був президентом, я зробив би усіх щасливими.</p>
<p><b>III.</b> Умовне речення з нереальною умовою (дія, що могла б відбутися у минулому часі, але не відбулася)</p>	<p><b>if + Past Perfect, would (could, might) + Present Perfect</b></p> <p><i>If you <u>had tried</u>, you <u>would have done</u> it. (but you <u>didn't</u>)</i> – Якщо б ви спробували, ви б це зробили. (але не спробували)</p>

Умовні підрядні речення вводяться сполучниками *if* (якщо), *unless* (якщо ні), *provided, providing (that), on condition (that)* (за умовою, у разі якщо).

*We'll go swimming unless it rains.* – Ми підемо плавати, якщо не дощитиме.

*He can come with us provided he pays for his own meal.* – Він може піти з нами, якщо він сам за себе платитиме.

Для умовних речень II та III типів можлива інверсія, якщо речення починається з *were, had, should*.

*Were I there, I would help them.* – Якщо б я там був, я б їм допоміг.

*Should the talks last longer, I'll have to cancel my appointment.* –  
 Якщо переговори триватимуть довше, я повинен буду відкласти свою зустріч.

**Exercise 9. Translate the sentences.**

1. He would have helped him if he had had time yesterday. 2. If I see him tomorrow I will tell him about this event. 3. The application of plastics would reduce maintenance costs. 4. They would start the experiment if the permission were given. 5. They would have started the experiment yesterday if permission had been given. 6. If the scientists found the ways to predict earthquakes, it would be possible to evacuate people from the regions and thus save many human lives. 7. If you approach the village from the north, you will see a tall deserted building that once was a landlord's place. 8. Had you planned your time better, you wouldn't have come to the station one minute before the train left. 9. If you had warned me in advance, I might have helped you. 10. You would never get lost in a new city provided you have a map. 11. You will not get well unless you give up smoking.

**Exercise 10. Make sentences from charts A and B.**

A			B	
<b>If I</b>	found	cakes	<b>I would</b>	feel better.
	were	the answer		try to get a job as a policeman.
	had	a car		lose weight.
	didn't eat	taller		buy a big house.
	didn't smoke	so much		build more schools and hospitals.
		a lot of money		keep it.
	president	<b>I wouldn't</b>	tell you.	
	some money		give you a lift.	
	the street			

**Exercise 11. Open the brackets and say each sentence three times, forming the Conditional sentences of the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> types.**

*Model:* If you (be) free, I (come) to see you.

*If you are free, I will come to see you.*

*If you were free, I would come to see you.*

*If you had been free, I would have come to see you.*

1. If my friend (*come*) to see me, I (*be*) very glad. 2. If mother (*buy*) a cake, we (*have*) a very nice tea party. 3. If we (*receive*) a telegram from him, we (*not worry*). 4. If you (*not work*) systematically, you (*fail*) at the examination. 5. If you (*be*) busy, I (*leave*) you alone. 6. If I (*live*) in Moscow, I (*visit*) the Tretyakov Gallery every year. 7. If I (*get*) a ticket, I (*go*) to the Philharmonic. 8. If I (*live*) near a wood, I (*gather*) a lot of mushrooms. 9. If my father (*return*) early, we (*watch*) TV together. 10. If she (*know*) English, she (*try*) to enter the university.

**Exercise 12. Put in the correct verb forms for a 2<sup>nd</sup> type conditional sentence.**

1. The kitchen (*look*) better if we (*have*) red curtains. 2. I (*be*) sorry if we (*not see*) her again. 3. It (*be*) a pity if Andy (*not get*) the job. 4. If I (*know*) his address, I (*go*) round and see him. 5. What (*you do*) if you (*win*) the lottery? 6. It (*be*) quicker if you (*use*) a computer. 7. If you (*not be*) so busy, I (*show*) you how to play. 8. If we (*have*) some eggs, I (*make*) you a cake. 9. If you really (*love*) me, you (*buy*) me those diamonds. 10. I'm sure Moira (*help*) you if you (*ask*) her. 11. If it (*not be*) so cold, I (*tidy*) up the garden. 12. If I (*have*) the keys, I (*show*) you the cellar. 13. Where (*you go*) if you (*need*) to buy a picture frame?

**Exercise 13. Put in the correct verb forms for a 3<sup>rd</sup> type conditional sentence.**

1. If I (*know*) you were coming, I (*invite*) some friends in. 2. The team (*win*) if Jones (*play*) better. 3. If they (*not cut*) off the electricity, I (*finish*) my work. 4. If Bell (*not invent*) the telephone, somebody else (*do*) it. 5. If you (*not spend*) so much time making up, we (*not be*) late. 6. The burglars (*not get*) in if you (*remember*) to lock the door. 7. If he (*not be*) a film star, he (*not become*) President. 8. If she (*have*) more sense, she (*sell*) her car years ago. 9. If he (*not spend*) so much on his holiday, he (*have*) enough to pay for the house repairs. 10. You (*not catch*) cold, if you (*take*) your coat. 11. We (*get*) better tickets if we (*book*) earlier. 12. 'If Cleopatra's nose (*be*) shorter, the whole history of the world (*be*) different.' (Pascal)

**Exercise 14. Choose the correct verb forms.**

1. If she (*comes/come*) late again, she'll lose her job. 2. I'll let you know if I (*find/found*) out what's happening. 3. If we (*live/lived*) in a town, life would be easier. 4. I'm sure he wouldn't mind if we (*arrive/arrived*) early. 5. (*We'll/We'd*) phone you if we have time. 6. If I won the lottery, I (*will/would*) give you half the money. 7. It (*will/would*) be a pity if she married Fred. 8. If I'm free on Saturday, I (*will/would*) go to the mountains. 9. She (*will/would*) have a nervous breakdown if she goes on like this. 10. I know I'll feel better if I (*stop/stopped*) smoking.

**Exercise 15. Look at what Jenny and Mark hope will happen in the future. Make sentences using *If ... will ...* .**

*Model:* If I don't go out so much, *I'll do more work. If I do more work, I'll ...* .

*Jenny:* If I don't go out so much → do more work → pass my exams → go to university → study medicine → become a doctor → earn a good salary → ?

*Mark:* If I stop smoking → have more money → save more every week → be rich when I'm thirty → have my own business → make a lot of money → retire when I'm forty → ?

**Exercise 16. Rewrite these sentences using the words in brackets.**

1. I won't come if they don't invite me. (*unless*) 2. What would you do if he left you? (*supposing*) 3. If you join the tennis club, I will too. (*provided that*) 4. She won't get that job if she doesn't learn to speak French. (*unless*) 5. If the bodyguard hadn't been there, what would have happened? (*imagining*) 6. I'll come at 8.00 if that's all right with you (*as long as*). 7. I won't go out this evening. Paul might ring. (*in case*)

**Exercise 17. Put the verbs in brackets into the correct tense forms.**

1. If you (*not buy*) coffee, we'll drink tea. 2. If he is free tomorrow, he certainly (*come*) to our party. 3. My brother would not have missed so many lessons if he (*not hurt*) his leg. 4. If you spoke English every day, you (*improve*) your language skills. 5. If you get a 'five', your mother (*be*) happy. 6. If she (*return*) earlier, she would have been able to see him before he left. 7. If these shoes were not too big for me, I (*buy*) them. 8. If you (*ring*) me up, I'll tell you a secret. 9. If I (*be*) a



poet, I would write only love poems. 10. If he (*not pass*) his examination, he will not get a scholarship. 11. If I were a famous singer, I (*get*) a lot of flowers every day.

**Exercise 18. Write sentence chains with *if* to show how things could have been different.**

*Model:* If he hadn't worked so hard, *he wouldn't have passed his exams. If he hadn't passed his exams, he wouldn't have gone to university. If he hadn't gone to university ...*

1. He worked hard → passed exams → went to university → studied languages → learnt Chinese → went to China → went climbing in Tibet → tried to climb Everest → disappeared in a snowstorm.

2. He bought a bicycle → went for a ride in the country → fell off → woke up in hospital → met a beautiful nurse → wrote a bestselling novel about her → got rich → marries the beautiful nurse and had three charming children → lived happily ever after.

3. Mary's mother went out that evening → Mary cooked for herself → got interested in cooking → opened a very successful restaurant → had Prime Minister as customer → PM ordered mussels\* → mussels poisoned PM → PM died → Mary went to prison for life.

\* *mussels – мідії*

**Exercise 19. Personalisation. Finish these sentences. Then, in pairs, discuss your answers with your group mate.**

1. If my family were millionaires, ... .
2. If I had been born in 1900, ... .
3. Unless I finish university, ... .
4. If I was a movie star, ... .
5. If I had gone to a primary school abroad, ... .
6. If I was of the opposite sex, ... .
7. If I were absolutely free to choose my future career, ... .

### **Emphasis**

(Емфатичні звороти)

Емфатичні звороти виділяють той чи інший член речення різними засобами:

1. За допомогою посилювальних слів та словосполучень: ***as much as, as early as, do, it is/was (not) ... that (who, which)***.

*The unemployment rate reached as much as 15 percent at that time.* – Рівень безробіття у той час досяг цілих (вже) 15 відсотків.

As early as in the end of WWII they started using antibiotics. – Ще (вже) наприкінці Другої світової війни почали використовувати антибіотики.

It is these characteristics that are important to us. – Саме ці характеристики важливі для нас.

You do look nice. – Ти дійсно гарно виглядаєш.

I know you didn't expect me to go there, but I did go. – Я знаю, ви не очікували, що я туди піду, але я все ж таки пішов.

2. За допомогою **інверсії** (зворотнього порядку слів):

- певних словосполучень на початку речення

<i>seldom, little</i>	<i>nowhere</i>	<i>not even once</i>
<i>rarely, barely</i>	<i>not till/until</i>	<i>on no account</i>
<i>scarcely (ever) ...when</i>	<i>on no occasion</i>	<i>only in this way</i>
<i>hardly (ever) ... when</i>	<i>in no way</i>	<i>only if, only than</i>
<i>no sooner ...than</i>	<i>in/under no circumstances</i>	<i>nor/neither</i>
<i>not only ... but also</i>	<i>never (before)</i>	<i>not since</i>

Never in my life have I seen such a beauty. – Ніколи у житті я не бачив такої краси.

Not until I reached home did I allow myself to consider the result of my actions. – Тільки коли я добрався додому, я замислився щодо результатів моїх дій.

Not only does she write short stories, but she is also a painter of talent. – Вона не тільки пише оповідання, але ще й талановита художниця.

Rarely do we see him these days. – Рідко ми його бачили у ці дні.

Only if you invite her, will she come to your party. – Лише якщо ви її запросите, вона до вас прийде.

• обставин місця (*here, there*) або емоційно виділеного прийменника

Here comes our friend. – Ось йде наш друг.

Thus began our friendship. – Так почалася наша дружба.

Away ran the thief. – Та грабіжник утік.

• поширеної обставини

To this branch of physics was added another one. – До цього розділу фізики додали ще один.

• *should, were, had* замість *if* в умовних реченнях

*Should you ever come to London, I'll show you around.*

*Had you arrived earlier, you would have seen a most remarkable sight.*

*Were I you, I would cancel my trip.*

• ***so, neither/nor*** для підтвердження попереднього висловлювання

*My sister enjoys dancing. So do I.*

*I haven't handed in my report yet. Neither (nor) has he.*

*They finished their work yesterday. So did he.*

• ***so, such, to such a degree***

*So careful is she that she never makes any mistakes.*

*Such a brilliant student was he that he was offered a scholarship.*

• дієслова, що вводить пряму мову

*'I've never seen him,' said Helen.*

• ***no matter, however, whatever, even if*** у допустових підрядних реченнях

*Whatever faults he may have, greediness is not one of them. –*

Які б він не мав недоліки, жадібність не з їх числа.

*No matter how hard he works, he gets no promotion. –*

Скільки б він не працював, його не просувають по службі.

*Miserable as he is, he never shows it. –*

Яким би нещасливим він не був, він ніколи цього не показує.

## **Exercise 20. Translate the sentences paying attention to emphatic constructions.**

1. The problem *does* exist, whatever you think about it. 2. *Not only* does the government support the needy population, *but* it *also* subsidizes the entire agricultural sector. 3. *Nor* should there be distortions in social policies of the local governments. 4. *It was not until* mid-90s *that* some progress was observed. 5. *It is* these facts *that* drew our special attention. 6. *No sooner* the committee started operating *than* the first positive results could be seen. 7. *Strange* as it may seem, they were reluctant to learn from native speakers of English. 8. The economic growth reached *as much as* 5 percent last year against 1.1 percent two years ago. 9. *Then* came the memory of that wonderful time at the seaside we spent together. 10. *Hardly ever* had we loved and rested so well as that summer. 11. *Down below*

spread our town with its wide streets, beautiful buildings, bridges and green parks. 12. *Never* in my life have I seen such a crowd of people. 13. *Should* you happen to be there, come to see it by all means. 14. *Not* a penny of the money did he spend on his own needs. 15. *Soon* to this difficulty was added another one still more troublesome. 16. *Seldom* has he felt so pleased with his results. 17. *Little* as I know about the matter, this argument seems to be quite to the point. 18. *No matter* how late you come, we shall be only glad to see you.

**Exercise 21. Confirm the following sentences and say that you are in the same boat or have had similar experience.**

*Model:* She's from Scotland, and *so am I*.

She didn't understand. *Nor did I*.

I've lost their address. *So have I*.

1. I've got a headache! 2. I didn't pass my driving test. 3. We went to Corfu last summer. 4. I can speak Italian. 5. I'm not going out tonight. 6. I have never seen her. 7. I didn't expect him to come here. 8. I have just spoken to them. 9. I like apples. 10. Peter gave up smoking. 11. I didn't promise them much. 12. I can do something about the house. 13. I'll do it with pleasure. 14. I am pleased to meet you.

**Exercise 22. Rewrite the sentences emphasizing the words in italics.**

*Model:* The Beatles recorded 'Let it Be'. – *It was the Beatles who recorded Let it Be.*

1. *Paul McCartney* sang the lead. 2. The video was recorded *on a rooftop*. 3. The record was released *in 1969*. 4. *John Lennon* played lead guitar. 5. The Beatles broke up *shortly after this*.

**Exercise 23. Practice the Inversion making the following sentences more emphatic.**

*Model:* I had *never before* been asked to accept such a proposal.

*Never before had I been asked to accept such a proposal.*

1. He *never in his life* needed support as badly as now. 2. Though he is *unhappy*, he never shows it. 3. They would *on no account* agree to invite him. 4. I have *nowhere else* seen such beautiful nature. 5. A man *rarely* showed such courage. 6. Sam sounded *so natural* that nobody suspected him of anything.

**Exercise 24. Rewrite the sentences starting with *so* or *such*.**

*Model:* Being tired, Don slept for twelve hours. – *So tired was Don that he slept for twelve hours.*

1. He had such a fierce dog that we were terrified. 2. I got so angry that I screamed. 3. We received such a big telephone bill that we couldn't pay it. 4. The sea looked so lovely that we dived in.

**Exercise 25. Complete the sentences using the words in *italics*.**

*Model:* She remembered the man's name after he'd walked away. (*remember*) – *Only after he'd walked away did she remember the man's name.*

1. They had no idea it was a classical concert. (*know*) – *Little ...*  
2. There's no way I can come to the meeting on Friday. (*can*) – *In no way ...*  
3. They could only keep the children quiet by giving them sweets. (*by*) – *Only ...*  
4. She's a talented dancer and a good singer as well. (*only*) – *Not ...*  
5. Don't show these figures to anyone on any account. (*should*) – *On no account ...*  
6. I haven't seen better service anywhere. (*else*) – *Nowhere ...*  
7. As soon as he had eaten, he jumped up and began to dance. (*sooner*) – *No ...*  
8. The papers blew away. (*blew*) – *Away ...*  
9. They didn't see the sign until it was too late. (*did*) – *Not until it was ...*  
10. If I were you, I'd just ignore her cruel remarks. (*you*) – *Were ...*  
11. I've never seen Chris pay for a drink. (*occasion*) – *On ...*  
12. You should never lend Tony your car. (*circumstances*) – *Under ...*

**Exercise 26. Let's talk about writers (artists, composers, etc.) both classical and modern. Express your opinion on Tolstoy, Shevchenko, Levitan, Mozart, etc.**

*Model:* Famous as Malevich may be, I cannot understand his most well-known work 'The Black Square'.

1. Whatever merits he (she) may have ...  
2. Talented as he is ...  
3. No matter how clever (popular, beautiful) his works may be ...  
4. Whatever artistic values his works may have ...  
5. Even if he does enjoy popularity ...

## Compound Conjunctions

(Складені сполучники)

<b>as ... as</b> так (само) ... як (і), такий (самий) ... як (і),	<i>The strength of this material is <u>as great as</u> that of steel.</i>
<b>as long as</b> (до тих пір) поки, при умові (що)	<i>I shall stay with you <u>as long as</u> you need me. You can take my car <u>as long as</u> you don't smash it up.</i>
<b>as soon as</b> як тільки	<i>I'll call you <u>as soon as</u> you return home.</i>
<b>as well as</b> також, і ... і	<i>We received your letter <u>as well as</u> your telegram.</i>
<b>both ... and</b> як ... так і, і ... і	<i>She can <u>both</u> speak and write Japanese.</i>
<b>either ... or</b> чи ... чи, або ... або	<i>The chief engineer is <u>either</u> at the office <u>or</u> at the laboratory.</i>
<b>in order that</b> (для того) щоб	<i>The invitations were sent beforehand <u>in order that</u> the delegates might arrive in time.</i>
<b>neither nor</b> ні ... ні	<i><u>Neither</u> he <u>nor</u> I know French.</i>
<b>so that</b> (з тим) щоб, для того щоб	<i>I gave him the book <u>so that</u> he could prepare the task at home.</i>

### Exercise 27. Translate the sentences.

1. My younger brother is *as tall as* I am. 2. I'll remember you *as long as* I live. 3. I'll telephone you *as soon as* I return home. 4. This book is interesting *as well as* useful. 5. *Both* the bridge *and* the tunnel will be finished in time. 6. I'll leave *either* tonight *or* tomorrow. 7. *In order that* the comfort of the driver may be improved the design of the seat was changed. 8. I could find him *neither* at home *nor* in the office. 9. They crossed the mountains *so that* they could reach the village before dark. 10. *Both* the bridge *and* the dam will be completed before the navigation season. 11. You can get to that part of the city *either* by bus *or* by the underground. 12. *As soon as* all the calculations are completed, we shall begin the tests. 13. These children know *neither* German *nor* French. 14. *As long as* you refuse to apply new methods the output will remain unchanged. 15. Special

containers were used *in order that* the supply of food could be improved. 16. The investigations at the Arctic research station are carried out daily in good *as well as* in bad weather according to the carefully worked out plan.

**Exercise 28. Use the conjunction *both ... and* in these sentences.**

*Model:* 1. Peter and John like skating. – *Both Peter and John like skating.*

2. He was interested in English and French. – *He was interested both in English and French.*

1. International fairs and exhibitions are held in our country and abroad. 2. It was cold and wet yesterday. 3. We have made great programs in industry and agriculture. 4. The sister and brother like classical music. 5. High-speed trains use dedicated and conventional lines. 6. The Channel Tunnel Rail Link carries domestic and international traffic.

**Exercise 29. Join the sentences with *both ... and* or *neither ... nor*.**

1. He repairs cars. He repairs motorbikes too. 2. He doesn't speak English. He doesn't speak French. 3. I don't like her. I don't dislike her. 4. I admire him. I distrust him as well. 5. Paul is on holiday. Sally is on holiday too. 6. The secretary did not have the file. The accountant did not have the file. 7. The play was funny. The play was shocking. 8. He collects paintings. He collects jewellery as well. 9. You're not right. You're not wrong. 10. She didn't look at me. She didn't say anything.

**Exercise 30. Fill in the gaps with *either ... or*, *neither ... nor*, *both ... and*.**

1. Tolstoy is well known ... in Russia ... in other countries. 2. From the entrance hall you can get ... to the sitting room ... the study. 3. You may have ... tea ... coffee. 4. You must not take meat; you may have ... milk ... vegetables. 5. Don't go by tram. You may be late for work. Take ... the underground ... a taxi. 6. ... Martha ... George is busy with this project now. 7. Jeffery could ... count ... read. 8. After dinner he ... looked through his mail ... other letters. 9. My brother used to read a lot in his childhood. He read ... Russian ... foreign writers. 10. I don't know what else can be done. ... his wife ... his parents can influence his decision.

**Exercise 31. Put in the suitable conjunctions** (*as long as, so that, as if, as though*).

1. You can have my bike ... you bring it back tomorrow. 2. It was very dark in the passage, ... I couldn't see where I was going. 3. You look ... you've seen a ghost. 4. It looks ... it's going to rain. 5. You can cancel the ticket ... you tell the airline 48 hours in advance. 6. I'm going to the bank now, ... I'll have enough money for shopping.

**Exercise 32. Join the beginnings and ends with *so that* or *as long as*.**

<i>BEGINNINGS</i>	<i>ENDS</i>
He went to Switzerland	he could learn French.
I don't mind you singing	it doesn't rain.
We moved the piano	that's OK with you.
We took some blankets	there would be room for the Christmas tree.
We'll come back this afternoon	we would be warn enough.
We'll play tennis	you do it quietly.

### Compound Prepositions

(Складені прийменники)

<b>according to</b> згідно з чимось	<i>According to the information received by us the exhibition will open on May 10.</i>
<b>as far as</b> до, наскільки	<i>They managed to get <u>as far as</u> the Spanish border.</i>
<b>because of</b> через, завдяки, внаслідок	<i><u>Because of</u> problems the launch has been put back a week.</i>
<b>by means of</b> за допомогою	<i>You might analyse this <u>by means of</u> the scientific method.</i>
<b>due to</b> через, завдяки, внаслідок	<i>The restaurant's success was <u>due to</u> its new manager.</i>
<b>in addition to</b> в доповнення, крім того	<i><u>In addition to</u> this equipment, two extra devises were used.</i>
<b>in front of</b> перед, напроти	<i>Suddenly, something ran across the road <u>in front of</u> the car.</i>
<b>in order to</b> (для того) щоб	<i>Samuel trained every day <u>in order to</u> improve his performance.</i>
<b>in spite of</b> незважаючи на	<i>We went out <u>in spite of</u> the rain.</i>



<b>instead of</b> замість	<i>You probably picked up my keys <u>instead of yours</u>.</i>
<b>on account of</b> внаслідок, через, з приводу	<i>She was told to wear flat shoes, <u>on account of her back problem</u>.</i>
<b>owing to</b> через, завдяки	<i><u>Owing to him</u>, the project will be a success.</i>
<b>thanks to</b> через, завдяки, внаслідок	<i>Some ski resorts opened early, <u>thanks to a late-October snowstorm</u>.</i>

### Exercise 33. Translate the sentences.

#### A

1. *According to* the information received by us the ship will arrive on the 10<sup>th</sup> of April. 2. I go by bus *as far as* the Library and then walk a few blocks to my office. 3. They didn't go to the country *because of* the rain. 4. In big ports ships are loaded and unloaded *by means of* cranes. 5. The train did not arrive in time *due to* the snowstorm. 6. *In addition to* the trouble in the engine there appeared another in the transmission. 7. Who is sitting *in front of* him? 8. The new equipment was used *in order to* test the vibration of the engine. 9. He left *in spite of* all my protests. 10. What book can you give me *instead of* that one? 11. The match was delayed *on account of* heavy rain. 12. *Owing to* the new system of regulations the number of accidents went down. 13. *Thanks to* his help we finished our work early.

#### B

1. *By means of* this device we can carry out more operations now in shorter time. 2. The work is going on *according to* the schedule. 3. The engine didn't operate well *because of* bad fuel. 4. *In order to* protect the surface from heat and cold it was covered with special substance. 5. *Due to* the establishment of new trolley-bus routes the passenger service in the city was improved. 6. The monument was restored *in spite of* many difficulties. 7. Who can repair the apparatus *instead of* him? 8. No planes took off on that day *on account of* low clouds. 9. Is there any high building *in front of* your house? 10. The expedition sailed *as far as* Borneo. 11. *In addition to* sails the boat was also supplied with a motor.

**Exercise 34. Fill in the gaps with** *owing to, due to, in addition to, according to, in front of, in spite of, by means of, thanks to, instead of, in order to, as far as, because of.*

1. You will be paid ... the amount of work you do. 2. A big oak tree stood ... the building. 3. ... recent research, effective treatments are available. 4. The train arrived late ... the snowstorm. 5. We saw a Mickey Mouse cartoon ... the cowboy movie. 6. The fisherman saved himself ... a floating log. 7. Flight BA213 has been delayed ... fog. 8. We have decided to close down the school for the summer ... do some major repairs. 9. ... I know he will be here in a few minutes. 10. ... all their differences, Joan and Ann remain friends. 11. The picnic was held in the gym ... the rain. 12. Let's meet at the restaurant ... the department store as we had planned.

## READING AND DISCUSSION

### Active Vocabulary

**eventually** – *adv* нарешті, все ж таки

**indeed** – *adv* насправді

**perfect** – *v* поліпшувати, вдосконалювати

**although** – *adv* хоча, незважаючи на

**seem** – *v* здаватися

**turn out** – *v* виявлятися

**fulfil** – *v* виконувати

**radical** – *adj* головний, основний; *syn crucial*

**boundary** – *n* границя, кордон

**priority task** – першочергове завдання

**decisive** – *adj* рішучий, вирішальний

**expect** – *v* очікувати

**renovation** – *n* оновлення; *innovative* – *adj* новаторський, сучасний

**view** – *v* дивитися; *n* погляд, точка зору, вигляд

**science fiction** – наукова фантастика

**search** – *n* пошук; *v* шукати

**conduct** – *n* ['kʌndʌkt] поведінка; *v* [kən'dʌkt] вести, здійснювати

**unprecedented** – *adj* безпрецедентний

**raise** – *v* піднімати; *n* підйом, зростання

**bring smth into line** – приводити у відповідність

**haul** – *n* поїздка, транспортування, вантаж; *v* перевозити; *haulier* – *n* перевізник, (транспортний) оператор

**belong to** – *v* належати

**exceed** – *v* перебільшувати

**loan** – *n* позика

**sustainable development** – стійкий розвиток; *sustain* – *v* підтримувати, підтверджувати

**long-term objective** – довгострокова мета

**novel** – *adj* новий; *novelty* – *n* новизна

**cost-effective** – *adj* рентабельний, прибутковий; *syn profitable*

**seamless** – *adj* безпересадковий, безперервний

**enable** – *v* давати можливість

### IRREGULAR VERBS

<i>Infinitive</i>	<i>Simple Past</i>	<i>Past Participle</i>	<i>Translation</i>
cost	cost	cost	коштувати
drink	drank	drunk	пити
lend	lent	lent	позичати
let	let	let	дозволяти
ring	rang	rung	дзвонити
sell	sold	sold	продавати
spoil	spoilt/spoiled	spoilt/spoiled	псувати

### Exercise 35

#### a) find synonyms.

To sustain, a run, finally, crucial, to set up, to fulfil, profitability, to establish, radical, a haul, eventually, to transport, an advantage, to perform, particularly, a benefit, to upgrade, cost-effectiveness, to renovate, to support, to haul, especially.

#### b) change the *italicized* words into their synonyms from the active vocabulary.

*Innovative* satellite navigation systems; *to improve* operational methods; *to perform* radical reforms; a *decisive* factor of railway development; *to direct* a business; *in fact*; to ensure *continuous* traffic on main lines; to make commuter service *profitable*; a transit *forwarder*; *in pursuit* for higher speeds, *be over* 90 %.

**Exercise 36. Fill in the gaps with the following verbs in the appropriate form.**

*admit, cope with, raise, fulfil, set up, haul, offer, involve, benefit, adjust, perform, exceed, sustain, belong*

1. Construction costs for the bridge could ... \$ 230 million. 2. It was then that the organization finally began ... the hopes of its founders. 3. Blake finally ... he had stolen the money. 4. This part doesn't ... to the wheelset. 5. Surgeons ... an emergency operation. 6. Open cars ... a load of iron ore. 7. I have to ... a question of the company's competitiveness. 8. A good manager will try ... everyone in the decision-making process. 9. The floor cannot ... the weight of a piano. 10. I don't think the colour control on this TV is properly ... . 11. My computer can ... huge amounts of data. 12. They ... him a very good job, but he turned it down. 13. They want ... their own import-export business. 14. They would ... by reducing their labour costs.

**Exercise 37. Translate the expressions with international words from the text.**

An experimental Japanese magnetic levitation train, intermodal service, multi-national companies, integral part of a global transport system, unprecedented forms, purpose-built high-speed track, rail system interoperability, pan-European rail corridors, the Ukrainian Railway Development Project, the European Bank for Reconstruction & Development, intercity mode of transport, satellite navigation systems and telematics, global systems for mobile communication, to transport nationally and internationally, door-to-door international transport service, to compete in the new global economy, the world's largest high-speed development projects, designed for transit hauls, innovative electronics and software solutions.

**Exercise 38. Pre-text discussion.**

1. Are you optimistic about the future for railways? What makes you think so? 2. Technical progress tends to accelerate with each coming decade. Name some of the recent innovations on railways which seemed fantastic not so long ago. 3. What will the railway of the future be like? 4. What are the main challenges we'll have to face?

## **THE FUTURE OF RAIL TRANSPORTATION**

(1) Had it been possible for the opponents of early railways to live till now, they should have admitted that G. Stephenson was eventually right about the bright future for railways. Steel wheels running on steel rails have stood the test of time<sup>1</sup> and do face a bright future<sup>2</sup>. Indeed, railways are the only means of transport with a considerable potential for growth and improvement through perfecting standard rail methods and combining them with new technologies. There has been major technical progress during the last 200 years, although the rate of progress has been the greatest during the last few decades. But man never stops at what he has reached, and what seems fantastic today turns out to be quite common tomorrow.

(2) Rail networks worldwide have to cope with similar challenges: adapting their infrastructure to the demands of global transportation market; introducing promising rail technologies and more efficient management practices. Many countries including Ukraine will have to fulfil radical reforms. These are the crucial directions of rail transport development for the coming decades:

- super high-speed trains and routes;
- global transport corridors designed for transit hauls;
- interoperability ensuring end-to-end international transport services without local boundaries;
- innovative electronics and software for intelligent railroading.

(3) *High speed* is the priority task and the decisive factor in the competition with air and road transport. High-speed traffic is growing strongly on world railways. A total of 6000 km of purpose-built high-speed track is expected to be in use in Europe by 2010. And what is most important, the world's largest high-speed development projects promise benefits for the growth of national economies.

The strategic development of railway includes renovation and technical re-equipment of the rolling stock. Tomorrow's trains will be of a new design, using air or magnetic cushions<sup>3</sup> and having new types of traction. Viewed from a distance, the train of the future looks like an overgrown bobsled on stilts<sup>4</sup>. As it approaches on its track, 2-3 ft. above the ground, it fails almost all the tests of recognition<sup>5</sup>: there are no engines, no wheels, and no rails. Most astonishing of all, there is

no clatter<sup>6</sup>, no rumble<sup>7</sup>, no screech<sup>8</sup>. As the train hurtles<sup>9</sup> by, there is only the sound of air being parted by a vehicle travelling at 500 mph. Do you think it is a fantasy of a science fiction writer? Nothing of the kind. It is a new high-speed train Maglev that actually flies in the air instead of rolling on rails. Indeed, in search of higher speeds, trains more and more resemble jet planes both in design and speed.

(4) Another crucial direction of railway development is setting up *international transport corridors* designed for transit hauls and able to link not only neighbouring countries but the whole continents with transport arteries. A good illustration of this trend of globalization is international corridor for rail freight, such as the North/East America-Europe-China route developed under UIC. Another example of the kind is upgrading nine major pan-European rail corridors which enable trains to run more efficiently over longer distances and to open up Euro-Asian markets. Ukraine as a transit country occupies an advantageous position on the cross-roads between Europe and Asia. The Ukrainian section of 627 km from Lviv to Kiev belongs to Corridor 3, starting from Berlin via Poland. It will be reconstructed and modernized to international standards under the Ukraine Railway Development Project. The cost of the project is expected to exceed € 90 million. A loan has been offered by the European Bank for Reconstruction & Development (EBRD).

The Trans-European Transport Network (TEN-T) including 30 priority axes and projects is a key element in securing the free movement of passengers and goods in the European Union. By 2020, TEN-T will comprise 89,500 km of roads and 94,000 km of railways, including approximately 20,000 km of high-speed rail lines suitable for the speeds of at least 200 km per hour.

(5) Modern world is often called a global village. In the era of global trade and industry conducted by multi-national companies, it is impossible for rail systems to remain barricaded within the borders of a single country or even continent. Railways are already an integral part of a global transport system linking rail, road, air, sea, and waterways. International transport corridors open up unprecedented forms of cooperation between the railways of North America, Asia, the Middle East, North Africa, and Europe.

(6) These developments raise the question of international rail system interoperability. Tomorrow's railways will be more *interoperable* and *intermodal*. For the railways this means ensuring the technical compatibility of equipment and management systems, standardizing rules and operating procedures at the administrative, commercial and technical level. In short, rail requires a common language. This is particularly true for Europe, where rail practices and systems differ widely between countries. The expansion of the European Union to 25 members due to the opening of its eastern borders also demands from railways to *europeanise* their national signalling systems. Differences in track gauges, for instance, can now be overcome through gauge conversion projects or gauge-adjustable wheelsets<sup>10</sup> pioneered in Spain.

(7) So one of the most important tasks for the railway transport is to bring it into line with unified European and world standards and practices to compete effectively in the new global economy. Making interoperability into reality is a growing priority for all concerned<sup>11</sup>: equipment manufacturers, railways, and international railway associations such as International Union of Railways (UIC), Community of European railways (CER), and some others.

(8) What is the vision of European rail for the decades to come? The European programme on sustainable transport development till 2020 – Towards a Single European Railway System – sets five long-term objectives:

- \* developing environmentally-friendly, safe and competitive passenger and freight transport with high-speed trains as the preferred intercity mode of transport and railfreight services as part of intermodal chains providing door-to-door delivery of goods;

- \* advanced technologies for surface transport such as novel propulsion systems<sup>12</sup>, innovative materials and fuel cells for transport leading to improved quality, comfort, cost-effectiveness and the ability to recycle;

- \* ensuring interoperability of transport modes by including new mobility management and transport logistics systems;

- \* a high degree of integration with the other forms of public transport in urban areas to create seamless services and to provide a real alternative to automobiles;

\* innovative electronics and software solutions for intelligent railroading using advanced satellite navigation systems and telematics (like global systems for mobile communication).

(9) The demand for efficient rail transport systems will continue to grow over the years to come and will require still higher levels of security and quality. The future belongs to the railways. This holds true whether it involves moving people between countries or on their daily journeys to business centres, as well as for the transport of railfreight nationally and internationally.

<sup>1</sup> *stood the test of time* – витримали випробування часом

<sup>2</sup> *do face a bright future* – сміливо дивляться у майбутнє

<sup>3</sup> *magnetic cushion* – магнітні подушки

<sup>4</sup> *bobsled on stilts* – бобслей на полозах

<sup>5</sup> *it fails almost all the tests of recognition* – він зовсім не схожий на звичайний потяг

<sup>6</sup> *clatter* – стук, гуркотіння

<sup>7</sup> *rumble* – гуркіт, шум

<sup>8</sup> *screech* – скрип

<sup>9</sup> *hurtles* – гуркоче

<sup>10</sup> *gauge-adjustable wheelsets* – колісні пари, що регулюються відповідно до ширини колії

<sup>11</sup> *for all concerned* – для усіх зацікавлених

<sup>12</sup> *propulsion system* – система тяги

### **Exercise 39. Choose the right answer consulting the text.**

1. Viewed from a distance, the train of the future looks like overgrown (*skates, bobsled, skis*) on stilts. 2. There is only the sound of air being parted by a vehicle travelling at (*500 mph, 200 mph, 150 mph*). 3. Instead of rolling on rails, it actually flies in the air, supported the force of powerful (*engines, skids, magnets*). 4. A total of 6000 km of (*purpose built, conventional, planned*) high-speed track is expected to be in use in Europe by 2010. 5. International transport (*corridors, corporations, organisations*) open up unprecedented forms of cooperation between the railways of North America, Asia, the Middle East, North Africa and Europe. 6. Differences in track gauges can now be overcome by developing systems that adjust (*wheelsets, wagons, engines*) automatically to the new gauge.



**Exercise 40. Prove these statements with the facts from the text. Give your own opinion.**

1. Railways are the only means of transport with a considerable potential for improvement. 2. High speed is the priority task and the decisive factor in the competition with air and road transport. 3. Tomorrow's railways will also be more interoperable and intermodal. 4. Another crucial direction is setting up international transport corridors. 5. One of the most important tasks for international railway transport is to bring it into line with unified European and world standards.

**Exercise 41. Scan the text for the figures and abbreviations. Comment on them.**

500 mph, Maglev, UIC, CER, 6000 km, EBRD, € 90 mil, nine corridors; Corridor 3, 2020, five objectives, 25 members, 2-3 feet, TEN-T.

**Exercise 42. Answer the following questions.**

1. Do the railways face bright future? Give your arguments. 2. What challenges do world railways have to cope with? 3. What are the crucial directions of rail transport development? 4. Why is high speed considered to be the priority in rail development? 5. What does international rail system interoperability mean? 6. How can railways compete effectively in the new global economy? 7. What are the international transport corridors designed for? What is their importance? 8. What international transport corridors run through the territory of Ukraine? 9. What does the European programme on sustainable transport development till 2020 include?

**Exercise 43. Explain the meaning of the following words, used in the text.**

Global transport corridors; global village; to europeanise; sustainable transport development; intermodal chains; to create seamless services; to bring smth into line; interoperability; end-to-end transport services; to ensure technical compatibility; magnetic levitation; competitiveness of rail services; transport logistics systems; intelligent railroading; ability to recycle.

**Exercise 44. Translate the word combinations into English.**

Визнати факт; світле майбутнє; витримати випробування часом; темпи розвитку; здаватися звичайним; практика управління; виконувати основні реформи; основні транспортні коридори; транзитні вантажі; спільне управління; технічна сумісність; першочергове завдання; оновлювання; магнітні подушки; пролітати з шумом; високошвидкісна колія; обіцяти переваги; такі, що мають спільну модель; транспортні оператори; приводити у відповідність; значний потенціал для розвитку та вдосконалення; те, що сьогодні здається фантастикою; стикатися зі схожими викликами; ключові напрямки; забезпечувати міжнародні транспортні послуги без місцевих кордонів; нагадувати реактивний літак як за швидкістю, так і дизайном; піднімати питання; розширення ЄС; проекти з конвертації ширини колії; забезпечувати доставку товарів від дверей до дверей; вимагати більш високої якості.

**Exercise 45. Make up the plan of the text. Summarize the text to produce a short report on the guidelines of rail development. Use some of these word combinations:**

The text discusses (highlights, covers) some aspects of ... . It deals with the problem ... .

The text starts with the outline of ... .

Special emphasis is given to the issues of ... .

**Exercise 46. Project: describe the railway of the future as you see it with the focus on infrastructure, rolling stock, operation, range of services. Use Internet or any other source of information to develop your project. Write a composition and give a presentation using drawings, posters, etc.**

**Exercise 47. Look through the texts. Make up 4 questions to each and let your partners answer them.**

*Supplementary Text A*

**FOUR EURASIAN CORRIDORS**

The full four-corridor Trans-Asian Railway (TAR) network is now being developed which aims to provide a continuous 14,000 km rail

link between Singapore and Istanbul, Turkey, with possible further connections to Europe and Africa.

TAR routes in operation today cover 80,900 km distributed as follows:

- Southeast Asia (Cambodia, Indonesia, Malaysia, Myanmar, Singapore, Thailand, Vietnam), 12,600 km;
- Northeast Asia (China, Korea, Mongolia, North Korea, and the Russian Federation), 32,500 km;
- Central Asia and Caucasus (Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan) 13,200 km;
- South Asia (Bangladesh, India, Iran, Pakistan, Sri Lanka, Turkey) 22,600 km.

The biggest challenge apart from providing the missing links is the four different rail gauges across Eurasia. Turkey, Iran, China, and two Koreas, and most of Europe use the 1435 mm standard gauge; Finland, Russia, and the former Soviet republics use 1520 mm gauge; most of the railways of India, Pakistan, Bangladesh, and Sri Lanka use 1676 mm gauge, while most of Southeast Asia operates on metre-gauge tracks.

In the northern corridor, for example, there are breaks of gauge at the Polish-Belarusian border (1435 mm to 1520 mm), the Kazakhstan-China border (1520 mm to 1435 mm), and the Mongolian-Chinese border (1520 mm to 1435 mm). Others include the Iran-Pakistan, India-Myanmar, and Thailand-China borders.

### *Supplementary Text B*

#### **CHINA TO ATTEMPT NEW WORLD SPEED RECORD**

China will attempt to break the world rail speed record currently held by France. The attempt will be made using an experimental train being built by CSR.

The current world record of 574.8 km/h was set by the V150 test train on TGV Est on April 4 2007, smashing the previous record of 515.3 km/h, which was also achieved in France 17 years earlier. If successful, China will become the first Asian country to hold the title since Japan lost the record to France in 1981.



CNR's latest high-speed train CRH380B (pictured) has a design speed of 400 km/h, an operating speed of 350 km/h, and a maximum output of 18.4 MW with half the cars powered. The train has improved aerodynamics by enclosing the inter-car bellows with rubber sections and enclosing the bogies more than on CRH3.

CRH380B has a new interior design and four classes: sightseeing, grand, first and second, plus a dining car. Each train seats 1026 passengers.

The first 11 production trains were due to roll out of CNR's Tangshan plant by the end of 2010. CNR is supplying a fleet of 70 16-car trains.

China's plan to break the world rail speed record is another step in its strategy to demonstrate that it is now able to make its own technical advances, while China's two manufacturing giants, CNR and CSR, are ready to unleash their new-found technology and products on the world.

### *Supplementary Text C*

## **FASTER THAN AIRPLANE**

A model Maglev train that can travel as fast as a plane has been successfully developed in a laboratory in Southwest Chinese University, but putting the technology to use is still a long way away. The vacuum magnetic suspension train model is able to run at between 600 and 1,200 kph, equal to the speed of a plane.

The new technology is expected to be put into operation within 10 years and promoted across the country in 2030, the Shanghai-based Science Pictorial reported. Passengers will be able to travel from Beijing to Guangzhou in under two hours. A flight from the capital to Guangzhou takes three hours.

The technology, now being researched in just two other countries – the US and Switzerland – theoretically allows trains to run in vacuum tubes at speeds of up to 20,000 kph.

The report cited a number of other advantages: the technology would use just one-tenth of the fuel that a plane does, and emit almost zero noise.

However, the technology only has an experimental significance and is not currently feasible due to its astronomical costs. The cost for one kilometer of vacuum tube would be several times higher than that of a subway, which costs over 200 million yuan (\$ 30 million).

Wang Mengshu, a professor at the Beijing Jiaotong University, was skeptical about the technology. ‘Developing a vacuum Maglev train is a complete scientific fantasy. It is impossible to develop a vacuum Maglev train at a speed of 20,000 kph technically and economically,’ Wang told the Global Times, adding that it was very dangerous for people to take a train in a vacuum state at an average speed of more than 350 kilometers per hour.

## CONVERSATIONAL PRACTICE

**Exercise 48. Work in pairs. Make dialogues for the situations, using ways of making suggestions.**

*Example:* You have got a terrible cold.

*A: My head's killing me! And my nose is so sore!*

*B: I think you should go to bed with a hot drink.*

*A: That's a good idea. I'll go right now.*

*B: Oh, that would be lovely!*

1. You've just got a job in Beijing, so you need to learn the Chinese language, and find out about Chinese people and culture as quickly as possible.
2. You both have the evening free, and there's nothing on TV.
3. Your flat's a mess, it hasn't been decorated for ages, and the furniture is ancient. Suddenly you inherit some money!
4. You can't decide whether to go to the university (but you don't know what to study) or have a year off and go round the world.
5. It's Christmas time! What can you buy for the different members of the class?

6. You've been invited to the Queen's garden party at Buckingham Palace in June. What are you going to wear? The weather in June is very unpredictable.

### WORD BUILDING

**Exercise 49. Change the form of the words in brackets to complete the sentence.**

*Model:* What's that *funny* noise? (*fun*)

Max never keeps his promises. He is very *unreliable*. (*rely*)

1. Have I told you about the most (*embarrass*) moment in my life?  
2. Do you know if this mushroom is (*poison*)? 3. The rate of (*literate*) amongst the poor is still quite high, despite all the (*improve*) in education. 4. Jane was so (*disappoint*) that she didn't get the job. 5. I want to complain. Your sales assistants were very (*help*). They couldn't give me any of the information I needed. 6. I'm afraid most of the points you have made in your essay are (*relevant*). 7. The extent of the damage after the storm was terrible, quite (*believe*) in fact. 8. What you need is a really (*relax*) holiday! 9. Parents should always take (*responsible*) for their children's bad behaviour. 10. It's (*use*) talking to him. He won't listen to a word you say. 11. My brother was (*conscious*) for two hours after he fell off his bike. 12. We are sorry to inform you that your application has been (*success*). 13. This wet weather is so (*depress*). 14. He was accused of (*loyal*) to the company, and asked to resign from his job. 15. Do you have good (*relations*) with your mother-in-law?

**Exercise 50. Put one of the adjectives into each gap. Sometimes more than one is possible.**

<i>interested / interesting; bored / boring; embarrassed / embarrassing; tired / tiring; surprised / surprising</i>
---

1. Your news was very ... . I'm pleased you're enjoying yourself.  
2. I liked the book until the end. It had a ... ending which I didn't like.  
3. – How was your journey? – Very ... . I think I'll go to bed. 4. The play was so ... that I fell asleep. 5. He started to tell a joke about the director when the director came into the room. It was very ... . 6. You look ... . Have you had a busy day? 7. It's Sunday and I don't know what to do. I'm ... . 8. Are you ... in museums? I'm going to the National this afternoon. Do you want to come?

## GRAMMAR REVISION

**Exercise 51. Put the verb in brackets in the appropriate tense. When there is no verb, insert an auxiliary verb.**

My wife and I (*live*) in our present house in the country for five years. We (*move*) here after our second child (*be*) born. We (*live*) in town for ten years, and (*decide*) that as soon as we (*can*) afford it, we (*move*) away from the smoke and the noise of the city centre, which we finally (...) in 1985. We (...) never (*regret*) it.

We (*be*) reminded of the wisdom of our decision every morning when we (*draw*) the curtains to see open fields stretching before us. When the children (*have*) breakfast, they (*rush*) outside to play, which they (...) whatever the weather. Whilst they (*play*) outside, we somehow manage to start the day.

**Exercise 52. Put the verb in brackets in the appropriate tense. When there is no verb, insert an auxiliary verb.**

Actually, we (*think*) of moving. My wife (*accept*) a new job, which she (*start*) next month. As soon as she (...), she (*have*) a journey of fifty miles there and back, and I (*not think*) that she (*realize*) just how tiring this (*be*). I (*go*) away on business for a few days next week, and while I (*be*) away, my sister (*come*) to stay, which she (...) quite often. Once I (*be*) back, I (*decide*) that I (*get*) in touch with some estate agents. I (*not feel*) happy until we (*find*) a house closer to my wife's job. I wonder what the children (*say*) when they (*hear*) that we (*move*). This is the first time they (*live*) in the country, and they (*hate*) to move back to a town.

**Exercise 53. Write one sentence instead of the given two using the Complex Object.**

*Model: I saw John every day. He often spoke with his friends. – I often saw John speak with his friends. (or: John speaking)*

1. I watched the sun. It was rising. 2. I heard him. He was singing an English song. 3. We noticed a man. The man was cleaning his shoes. 4. He saw two girls. They were dancing on the stage. 5. She watched the children. They ran about and played in the garden. 6. Every night we saw our neighbour. He listened to the news. 7. John heard his daughter. She was talking loudly. 8. We saw Roger. He was crossing the square. 9. They heard their father. He played the piano every night.

**Exercise 54. Rewrite sentences using the Complex Subject.**

*Model: It is said that he knows the subject well. – He is said to know the subject well.*

1. It is believed that the expedition will return next Sunday.
2. It is supposed that the students have already submitted their term papers.
3. It was said that the performance had been a success.
4. It is supposed that the coming conference is of great importance for our work.
5. It is likely that the meeting will take place tomorrow.
6. It seems that he possesses a valuable collection of pictures.
7. It seems to me that she is seriously ill.
8. It seems to me he was tired.
9. It is known that the Gulf Stream brings warm waters to the British shores.
10. It is known that the coastline of the British Isles is irregular.
11. It is reported that great construction work is going on in their city.

**Exercise 55. Read the quotations given below. Write a paragraph in which you paraphrase the quotation, explain it through a series of supporting sentences, and make your own judgement about it. Feel free to agree or disagree with the idea.**

**Thoughts, that help us live**

1. The important thing is not to stop questioning. (*Albert Einstein, a physicist*)
2. Shoot for the moon. / Even if you miss, you will band among the stars. (*Les. Brown, an American writer*)
3. If we wait for the moment when everything, absolutely everything is ready, we shall never begin. (*Ivan Turgenev, a Russian writer*)
4. The supreme happiness in life is the conviction that we are loved. (*Victor Hugo, a French writer*)
5. The liar's punishment is not in the least that he is not believed, but that he cannot believe anyone else. (*G.B. Shaw, an English writer*)
6. The difference between men and boys is the price of their toys. (*Robert Frost, an American writer and poet*)
7. The test of a man or woman's breeding is how they behave in a quarrel. (*G.B Shaw*)
8. The limits of my language means the limits of my world. (*Ludwig Wittgenstein*)
9. Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do, when it ought to be done, whether you like it or not. (*Aldous Huxley*)



## APPENDIX

### Irregular Verbs

<b>Infinitive</b>	<b>Past Simple</b>	<b>Past Participle</b>	<b>Translation</b>
awake	awoke	awaken	прокидатися, будити
be	was/were	been	бути
bear	bore	born, borne	народжуватися, носити
become	became	become	ставати
begin	began	begun	починати(ся)
bend	bent	bent	згинатися
blow	blew	blown	дути
break	broke	broken	ламати(ся)
bring	brought	brought	приносити
build	built	built	будувати
burn	burnt, burned	burnt, burned	палити
buy	bought	bought	купувати
catch	caught	caught	ловити
choose	chose	chosen	вибирати
come	came	come	приходити
cost	cost	cost	коштувати
cut	cut	cut	різати
deal	dealt	dealt	мати справу
do	did	done	робити
draw	drew	drawn	малювати, тягнути
drink	drank	drunk	пити
drive	drove	driven	їхати, приводити у дію
eat	ate	eaten	їсти
fall	fell	fallen	падати
feed	fed	fed	годувати
feel	felt	felt	почувати(ся), відчувати
fight	fought	fought	боротися
find	found	found	знаходити
fly	flew	flown	літати
forget	forgot	forgotten	забувати
freeze	froze	frozen	замерзати
get	got	got, gotten	отримувати
give	gave	given	давати
go	went	gone	йти, їхати

<b>Infinitive</b>	<b>Past Simple</b>	<b>Past Participle</b>	<b>Translation</b>
grow	grew	grown	рости
hang	hung	hung	вішати
have	had	had	мати
hear	heard	heard	чути
hide	hid	hidden, hid	ховати
hold	held	held	тримати
keep	kept	kept	тримати, зберігати
know	knew	known	знати
lay	laid	laid	класти
lead	led	led	вести
leave	left	left	покидати
let	let	let	дозволяти, пускати
lie	lay	lain	лежати
light	lit, lighted	lit, lighted	освітлювати
lose	lost	lost	втрачати, губити
make	made	made	робити
mean	meant	meant	означати
meet	met	met	зустрічати(ся)
pay	paid	paid	платити
put	put	put	класти
read [ri:d]	read [red]	read [red]	читати
ride	rode	ridden	їхати верхи
ring	rang	rung	дзвонити
rise	rose	risen	підійматися
run	ran	run	бігти
say	said	said	говорити, сказати
see	saw	seen	бачити
seek	sought	sought	шукати
sell	sold	sold	продавати
send	sent	sent	відправляти, посилити
set	set	set	встановлювати
shake	shook	shaken	трусити
shine	shone	shone	світити
shoot	shot	shot	стріляти
show	showed	shown	показувати
shut	shut	shut	закривати
sing	sang	sung	співати

<b>Infinitive</b>	<b>Past Simple</b>	<b>Past Participle</b>	<b>Translation</b>
sit	sat	sat	сидіти
sleep	slept	slept	спати
speak	spoke	spoken	говорити, розмовляти
spend	spent	spent	витрачати
spread	spread	spread	поширювати(ся)
stand	stood	stood	стояти
steal	stole	stolen	красти
strike	struck	struck	бити, страйкувати
swim	swam	swum	плавати
take	took	taken	брати
teach	taught	taught	викладати
tell	told	told	розповідати
think	thought	thought	думати
throw	threw	thrown	кидати
understand	understood	understood	розуміти
wake	woke	woken	будити, прокидатися
wear	wore	worn	носити
win	won	won	перемагати
write	wrote	written	писати

### Фонетичні правила читання голосних

<b>Тип складу</b>	<b>I тип відкритий</b>	<b>II тип закритий</b>	<b>III тип r після ГОЛОСНОГО</b>	<b>IV тип r між ГОЛОСНИМИ</b>
a	[ei] hate	[æ] hat	[a:] hard	[εə] care
o	[ou] note	[ɒ] not	[ə:] nor	[ə:] more
u	[ju:] tube	[ʊ], [ʌ] put, cut	[ə:] turn	[juə] cure
e	[i:] Pete	[e] met	[ə:] her	[iə] here
i, y	[ai] fine, my	[i] till, gyps	[ə:] girl, Byrd	[aiə] fire, tyre

### Порядок слів у стверджувальному реченні

Обставина часу, місця	Підмет	Обставина способу дії	Присудок	Додаток	Обставина
In winter	children	often	play	snowballs	in the school yards.
	He	usually	does	his homework	in time.

Стверджувальне речення	<b>The shops close / don't close at 7 tonight.</b>
Питальне речення	<b>Do the shops close at 7 tonight?</b>
Спонукальне речення	<b>Shut the door. / Don't shut the door.</b>
Окличне речення	<b>What a slow train this is!</b>

### Pronouns

<b>особові</b>	I    you    he    she    it    we    you    they me    you    him    her    it    us    you    them
<b>присвійні</b>	my    your    his    her    its    our    your    their mine    yours    his    hers    its    ours    yours    theirs
<b>зворотні та підсилювальні</b>	myself, yourself, himself, herself, itself, ourselves, yourselves, themselves
<b>взаємні</b>	each other, one another
<b>вказівні</b>	this (these), that (those), such, the same
<b>питальні</b>	who, whom, whose, what, which
<b>відносні та з'єднувальні</b>	who, whom, whose, what, which, that
<b>невизначені</b>	some, any, one, all, each, every, other, another, both, many, much, few, little, either, no, none, neither

### Active Voice

	<b>Indefinite</b>	<b>Continuous be + V-ing</b>	<b>Perfect have + V-ed (3 φ.)</b>	<b>Perfect Continuous have been + V-ing</b>
<b>Present</b>	<b>V(s)</b> I <i>write</i> a letter. She <i>writes</i> a letter.	<i>I am writing</i> a letter now.	<i>I have just written</i> a letter.	<i>I have been writing</i> a letter for an hour.
<b>Past</b>	<b>V-ed (2 φ.)</b> I <i>wrote</i> a letter an hour ago. I <i>worked</i> hard.	<i>I was writing</i> a letter when you called me.	I said that I <i>had already written</i> a letter.	<i>I had been writing</i> a letter when you came.
<b>Future</b>	<b>will + V</b> I <i>will write</i> a letter next week.	<i>I will be writing</i> a letter at 5.	<i>I will have written</i> a letter by 5.	<i>I will have been writing</i> a letter for an hour tomorrow.

### Passive Voice

	<b>Indefinite be + V-ed (3 φ.)</b>	<b>Continuous be being + V-ed (3 φ.)</b>	<b>Perfect have been + V-ed (3 φ.)</b>
<b>Present</b>	The letter <i>is written</i> .	The letter <i>is being written</i> now.	The letter <i>has been written</i> .
<b>Past</b>	The letter <i>was written</i> .	The letter <i>was being written</i> when you called.	He said that the letter <i>had not been written</i> yet.
<b>Future</b>	The letter <i>will be written</i> .		The letter <i>will have been written</i> by 5 o'clock.

## Word Formation

<i>Prefixes</i>	<i>Example</i>	<i>Suffixes</i>	<i>Example</i>
<b>anti-</b> ( <i>against</i> ) <b>bi-</b> ( <i>two</i> ) <b>co-</b> ( <i>with</i> ) <b>de-</b> ( <i>acting against</i> ) <b>ex-</b> ( <i>before, former</i> ) <b>inter-</b> ( <i>between</i> ) <b>mono-</b> ( <i>one</i> ) <b>non-</b> ( <i>not</i> ) <b>over-</b> ( <i>too much</i> ) <b>post-</b> ( <i>after</i> ) <b>un-</b> ( <i>negative</i> ) <b>im-</b> ( <i>negative</i> ) <b>ir-</b> ( <i>negative</i> ) <b>il-</b> ( <i>negative</i> ) <b>in-</b> ( <i>negative</i> ) <b>mal-</b> ( <i>not correct</i> ) <b>dis-</b> ( <i>negative</i> )	<b>antinuclear</b> <b>bilingual</b> <b>cooperation</b> <b>decomposition</b>  <b>ex-general</b>  <b>intermediate</b> <b>monolingual</b> <b>non-stop</b> <b>overeat</b> <b>postgraduate</b> <b>unbelievable</b> <b>impossible</b> <b>irresistible</b> <b>illegal</b> <b>incompetent</b> <b>malfunction</b> <b>disagree</b>	<b>-ee</b> <b>-er</b> <b>-ish</b> <b>-proof</b> <b>-age</b> <b>-al</b> <b>-ation</b> <b>-ence</b> <b>-ion</b> <b>-ment</b> <b>-sion</b> <b>-sis</b> <b>-tion</b> <b>-y</b> <b>-ance</b> <b>-ant(-ent)</b> <b>-able(-ible)</b>	<b>employee</b> <b>employer</b> <b>childish, smallish</b> <b>waterproof</b> <b>breakage</b> <b>proposal</b> <b>organization</b> <b>preference</b> <b>confusion</b> <b>amusement</b> <b>suspension</b> <b>analysis</b> <b>direction</b> <b>perjury</b> <b>annoyance</b> <b>significant</b> <b>reliable (efficient)</b>
<b>pre-</b> ( <i>before</i> ) <b>pro-</b> ( <i>in favour of</i> ) <b>re-</b> ( <i>again</i> ) <b>semi-</b> ( <i>half</i> ) <b>sub-</b> ( <i>under</i> ) <b>super-</b> ( <i>above</i> ) <b>trans-</b> ( <i>across</i> ) <b>tri-</b> ( <i>three</i> ) <b>under-</b> ( <i>not enough</i> ) <b>uni-</b> ( <i>one</i> )	<b>prejudge</b> <b>pro-American</b> <b>rearrange</b> <b>semicircle</b> <b>subconscious</b> <b>supernatural</b> <b>transatlantic</b> <b>tricycle</b> <b>underestimate</b>  <b>unicycle</b>	<b>-an</b> <b>-ar</b> <b>-ary</b> <b>-y</b> <b>-wards</b> <b>-less</b> <b>-ly</b> <b>-ate</b> <b>-ize</b> <b>-fy</b> <b>-en</b>	<b>Siberian</b> <b>regular</b> <b>secondary</b> <b>faulty</b> <b>outwards</b> <b>useless</b> <b>rapidly</b> <b>celebrate</b> <b>organize</b> <b>simplify</b> <b>shorten</b>

