НАВЧАЛЬНО-НАУКОВИЙ ЦЕНТР ГУМАНІТАРНОЇ ОСВІТИ

Кафедра іноземних мов

МЕТОДИЧНІ ВКАЗІВКИ

з навичок спілкування
до розмовної теми

«*З ІСТОРІЇ ЗАЛІЗНИЦЬ*»

(англійська мова)

Харків – 2017

Методичні вказівки розглянуто та рекомендовано до друку на засіданні кафедри іноземних мов 5 жовтня 2017 р., протокол № 2.

Методичні вказівки складені відповідно до програми з іноземних мов для немовних вузів. Мета методичних вказівок – підготувати майбутніх спеціалістів залізничного транспорту до професійно-орієнтованого усного спілкування.

Дана робота націлена на ефективне опанування навичок сприйняття іноземної мови на слух і мовленнєвої практики. Це забезпечується системою, яка складається з відео- та аудіоматеріалу (з аутентичних джерел) і комунікативних вправ, що стимулюють інтерес студентів та їх творчу активність. Матеріал математичних вказівок дає багату інформацію стосовно історії, найважливіших аспектів роботи та тенденцій розвитку залізниць. Відео- та аудіоматеріали базуються на матеріалах сучасних спеціалізованих британських каналів BBC Teach і History Pod.

Рекомендується для студентів 1 курсу всіх спеціальностей.

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FROM THE HISTORY OF RAILWAYS

1 ***Study the words. Learn them by heart.***

Cornishman – уродженець Корноулла
achievable – досяжний
locomotion – спосіб пересування
powered – механізований
Brit – (розм.) британець
fellow – *n.* хлопець; *adj.* той, який належить до певної групи, хто має дещо спільне
to turn – змінювати, перетворювати
changing – зміна
bridge – міст
to hold (held, held) – утримувати
pivotal – центральний, основний
to stay (stood, stood) – перебувати, бути
to witness – бути свідком, бачити
remarkable – дивовижний, чудовий
spectacle – видовище, сцена
Georgian era – георгіанська ера, ера правління британських королів Геогрів I-IV (1714-1830)
improver – удосконалювач
fire tube – димогарна труба
to fill – заповнювати
boiler – котел
to create – створювати
to convince – переконувати
to mean (meant, meant) – означати
viable – життєздатний, рентабельний
coal – вугілля
plenty of – багато
fast-growing – швидкозростаючий
expensive – дорогий
demand – вимога, попит
pit owner – власник рудника
promoter – засновник
iron – залізний, залізо
local – місцевий

colliery – кам’яновугільний рудник, шахта
to involve – залучати, вплутувати
notable – видатна людина, відомий діяч
coach – вагон, карета
condition – стан
track – колія
foundation – основа, фундамент
sleeper – шпала
in order to – для того, щоб
to facilitate – полегшувати
entire – весь
vast complex entity – величезний складний організм (структура)
to bring in (brought, brought) – вводити, впроваджувати
engine efficiency – ефективність двигуна
brand-new – найновітніший
malleable – ковкий, пластичний
wrought iron – ковane залізо
brittle – крихкий
cast iron – чавун
heavy weight – важка вага
to support – підтримувати
to crack – тріскатися, розколюватися
a select few – деякі обрані
to prove – довести
to be superior to – перевершувати; бути кращим, ніж …
account – розповідь (свідків)
to pile – навантажувати, нагромаджувати
bumpy – тряський
to be a success – мати успіх, бути успішним
enormous – величезний
decade – десятиріччя
to be up – підійматися
impact – поштовх, імпульс
to marry smth. to smth. – поєднувати
landscape – пейзаж

2 ***Translate word combinations.***

Powered long-distance travel, fellow Brit, world changing, iron bridge, to hold a pivotal place, remarkable spectacles, a great improver, to fill the boiler, a viable train, plenty of coal, fast-growing cities, expensive prices, a slow steam train, a demand on coal, a local engineer, to involve fellows, notable local character, coaches that horses pull, a better condition track, in order to facilitate, entire railway, vast complex entity, to improve engine efficiency, brand-new materials, heavy weight of the locomotive, without cracking the rails, malleable wrought iron, brittle cast iron, a select few wagons, to pile into the wagons, enormous success, to be up for debate, to marry the train to the tracks, British landscape.

3 ***Translate the sentences into Ukrainian.***

1 In 1801 Cornishman Richard Trevithick discovered how to make steam locomotion achievable.
2 Cornishman Richard Trevithick opened up the possibility of powered long-distance travel.
3 A fellow Brit George Stephenson turned Trevithick's discovery into something really practical.
4 The Skern bridge is in County Durham.
5 This bridge holds a pivotal place in World transport history.
6 If you have been stood here in 1825 you would have witnessed a trip by steam railway.
7 Steam railway was one of the most remarkable spectacles of the Georgian era.
8 Like many great inventors, Stephenson was an improver.
9 Stephenson had the brilliant idea of filling the boiler with fire tubes.
10 The boiler created much more power.
11 Stephenson was convinced that the steam train was viable.
12 County Durham had plenty of coal.
13 To move coal to the fast-growing cities was expensive and slow.
14 The pit owners couldn't supply a growing demand in coal.
15 The promoters of the new line met in Darlington.
16 Iron road was needed for horses to pull wagons of coal.
17 Stephenson was just an engineer of a colliery.
18 How does he get involved to build a new wagon way?
19 George Stephenson is a notable local character.

20 Steam locomotives were heavier than the coaches that horses pulled.
21 New railway needs a better condition track, better foundations, better sleepers and so on.
22 The track was improved in order to facilitate the use of locomotives.
23 The entire railway is a vast complex entity.
24 He didn't just improve engine efficiency but developed brand-new materials.
25 The Stephenson's rails are made of malleable wrought iron.
26 Rail, made of brittle cast iron couldn't support heavy weight locomotives without cracking the rails.
27 The locomotive pulled 30 wagons most for coal but a select few reserved for people.
28 The opening of a new line proved that steam was superior to horsepower.
29 The accounts say that people piled into the wagons.
30 The travel was bumpy and uncomfortable.
31 Stephenson's train was an enormous success.
32 Within a decade million tons of coal was being transported every year.
33 The future of the steam locomotive was no longer up for debate.
34 The Stockton and Darlington railway had a far greater impact than the lowing the price of coal.
35 By marrying the train to the tracks Stephenson established a new method of travel which transformed the British landscape.

Watch the video material and do the following exercises.

4 ***True or False***

1 In 1901 Richard Trevithick discovered how to make steam locomotion achievable.
2 George Stephenson opened up the possibility of powered long-distance travel.
3 Skern bridge looked very important.
4 The first time the public took a trip by steam railway was in September 1825.
5 Stephenson was an inventor.

6 Stephenson had the brilliant idea of filling the boiler with some fire tubes.
7 Stephenson's engine was based on Richard Trevithick's original.
8 By the early 18th century Britain wasn't dependent on coal.
9 Moving coal to fast-growing cities was expensive.
10 In 1820 the pit owners met in Darlington.
11 It was necessary to pull wagons of coal to the river Stockton.
12 The ideas of George Stephenson were ambitious.
13 Stephenson was an engineer of a colliery.
14 Stephenson realized that steam locomotives were the future for railways.
15 Steam locomotives were heavier than the coaches were.
16 Steam locomotives didn't need foundation and sleepers.
17 Stephenson improved the track in order to facilitate the use of locomotives.
18 Stephenson improved engine efficiency.
19 The early rails were made of brittle cast iron.
20 Heavy weight of locomotives could be supported without cracking the brittle cast iron rails.
21 Most wagons pulled by Locomotion number one were loaded by coal.
22 600 people piled into the wagons pulled by Locomotion number one.
23 Early wagons were very comfortable.
24 The Stockton and Darlington railway had a far greater impact.
25 George Stephenson established a revolutionary new method of travel.
26 New railways didn't transform the British landscape.

5 ***Complete the sentences.***
1 In 1801 Cornishman Richard Trevithick discovered … .
2 He opened up the possibility of … .
3 Skern bridge … in world transport history.
4 On the 27th of September 1825 you'd have witnessed one of the most … of the Georgian era.
5 It was the first time the public … .
6 Stephenson's engine was based on … .
7 Stephenson had the brilliant idea … .

8 By the early 18th century Britain was dependent on … and County Durham had … .
9 Moving coal to fast-growing cities was … .
10 In 1820 … met in Darlington.
11 Horses needed … to pull wagons of coal to the river Stockton.
12 The promoters employed … to build a new wagon way.
13 Stephenson was … .
14 Stephenson liked the idea of … .
15 Horses were not future for railways – that … were.
16 Steam locomotives were heavier than … .
17 Steam locomotives need … .
18 Stephenson improved the track … the use of locomotives.
19 The entire railway is … .
20 Stephenson brought in … and developed … .
21 The Stephenson's rails were made of … instead of … .
22 The heavy weight of the locomotive could be supported without … .
23 On … the new line was opened.
24 Stephenson's Locomotion number one pulled … .
25 The opening of the line was an opportunity to prove that steam … to horsepower.
26 The travel was … .
27 Stephenson's train was … .
28 The future of the steam locomotive was … for debate.
29 The Stockton and Darlington railway had a far greater impact than … .
30 By marrying the train to the tracks, George Stephenson established … .

Watch the video material again and answer the following questions.

6 ***Answer the questions.***
1 When did Richard Trevithick discover how to make steam locomotion achievable?
2 What did Richard Trevithick open up?
3 What is situated in County Durham?
4 Why is Skern bridge so important?
5 What happened on the 27th of September 1825?

6 What was Stephenson?
7 Describe Stephenson's engine.
8 What is the difference between Trevithick's engine and Stephenson's engine?
9 What was Britain dependent on in the early 18th century?
10 What place in Britain had plenty of coal?
11 Why was moving coal to fast-growing cities expensive and slow?
12 Why did a quicker method of moving coal had to be found?
13 Where did the promoters of the new line meet?
14 Why was iron road for horses needed?
15 Who was employed to build a new wagon way?
16 What idea did Stephenson like?
17 What was the future for railways?
18 What was the difference between the steam locomotive and the coaches that horses pulled?
19 What did the new railway need?
20 Why did Stephenson improve the track?
21 Describe the Stephenson's rails.
22 When was the new line opened?
23 Could people travel in Locomotion number one?
24 Was the travel comfortable?
25 What decreased the price of coal?
26 What transformed the British landscape?
27 What did George Stephenson develop?

7 ***Retell the text.***

APPENDIX

Video script

In 1801 Cornishman Richard Trevithick discovered how to make steam locomotion achievable and opened up the possibility of powered long-distance travel.

But it would take a fellow Brit George Stephenson to turn it into something really practical turning world changing. As Cassie has been finding out.

This is Skern bridge in County Durham. It might not look very important but it holds a pivotal place in World transport history.

If you've been stood here on the twenty-seventh of September 1825 you'd have witnessed one of the most remarkable spectacles of the Georgian era It was the first time the public took a trip by steam railway.

Like many great inventors Stephenson was an improver. His engine was based on Richard Trevithick's original but where Trevithick had had one fire tube Stephenson had the brilliant idea of filling the boiler with them. This created much more power and Stephenson was convinced - this finally meant the steam train was viable. By the early 18th century, Britain was dependent on coal and County Durham had plenty of it. But moving it to our fast-growing cities was expensive and slow. As demand grew the pit owners around Darlington knew - a quicker method had to be found.

In 1820 the promoters of the new line met here. They believed that iron road was needed for horses to pull wagons of coal to the river Stockton. They employed local engineer George Stephenson to build a new wagon way but his ideas were more ambitious

– So this is Stephenson's line but he's just an engineer of a colliery so how does he get involved?

– Well, George Stephenson is a notable local character right is former the area. He likes the idea of steam locomotives he has been developing them for a few years, is improving their design and he realizes that horses are not the future for railways - that steam locomotives are. But they are, of course, heavier than the coaches that horses pull and so it needs a better condition track, it needs better foundations, better sleepers and so on. And so he improves the track in order to facilitate the use of locomotives.

Stephenson's real genius was to see the entire railway as one vast complex entity. He didn't just improve engine efficiency he brought in new construction methods and developed brand-new materials. The Stevenson's rails are made of malleable wrought iron instead of brittle cast iron and this meant that the heavy weight of the locomotive could be supported without cracking the rails.

On the 27 of September 1825, the new line opened with Stephenson's Locomotion number one pulling 30 wagons most for coal but a select few reserved for people.

Stephenson saw the opening of the line as an opportunity to prove that steam was superior to horsepower. Some accounts say that 600 people piled into the wagons pulled by Locomotion number one. It would have been bumpy and uncomfortable but imagine seeing for the first time the war for that way to travel Stephenson's train was an enormous success. Within a decade a million tons of coal was being transported along the line every year. The future of the steam locomotive was no longer up for debate. The Stockton and Darlington railway had a far greater impact than just lowing the price of coal. By marrying the train to the tracks, George Stephenson not only developed a better way of moving goods he established a revolutionary new method of travel which transformed the British landscape.

ADDITIONAL MATERIAL

A comprehension test. Listen to the text and write it down with as many details as possible.

APPENDIX

Audio script

On the eighth of October 1829 Robert Stephenson's steam locomotive "The Rocket" won the Rainhill Trials and secured a prize of 500 pounds under contract for the "Robert Stephenson and company" to produce locomotives for the new Liverpool and Manchester railway that opened the following year. Although not the first steam locomotive, it is notable for being the first to bring together a number of innovations that made "The Rocket" the basic template for all subsequent steam engines.

A specific set of rules had been produced for the Rainhill Trials, which among other things emphasized speed, reliability and a low weight.

"The Rocket" was built specifically to take account of these rules with Stephenson realizing that the relatively light haulage demands meant that a small and nimble locomotive with only moderate pulling power would be much more successful than a heavier engine with

greater strength. The approximately one mile stretch of track of the Rainhill section of the line was straight and flat, so although it posed no significant challenges to the competitors it allowed the judges to see all locomotives in an identical setting.

Each engine was required to run up and down the section 20 times meaning that they travelled a distance roughly equivalent to the full journey from Liverpool to Manchester. Of the ten locomotives that had been entered into the competition, only five turned up to the first day on 6 October.

By the end of the competition, only "The Rocket" had completed the full demands without suffering any damage despite reaching speeds in excess of 25 miles per hour while hauling a train of 13 tons.