SZÖVEGGYŰJTEMÉNY ÉS TANANYAG
ÍRÁSBELI VIZSGA

ANGOL KÖZÉPFOK (B2)

MŰSZAKI SZAKNYELV

Msz

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MŰSZAKI TEMATIKA

TANANYAG

1. Dream cars

The cars you see on the roads today are the result of years of developing, experimenting and testing. This text gives some examples of experimental cars of many years ago. Some ideas of those days are no longer used, but some have come on the roads in production cars only in recent times.

In the late 50s and 60s experimental 'science-fiction' looking cars were dreamt up in secret laboratories of important car manufacturers such as Ford and General Motors. Until recently, those flashy models often looked like jet planes. They were built with high budgets and with a lot of fantasy. Often their technology only worked in the minds of their designers. Some of their ideas, however, were used in normal, production-line cars.

General Motors' 1959 Cadillac Cyclone had huge tail fins and to warn drivers they were too close to another car, the engineers had built in radar warning devices near the headlights.

Ford's 1961 Gyron was equipped with an infrared camera in front and a TV camera behind. A miniature video screen on the dashboard showed the road conditions ahead and behind. Already the Gyron had a computer – controlled system for automatic driving.

Yet. Not all experimental cars have been that impractical: GM's 1951 LeSabre had features which were used in production-line cars such as wrap-around windows and small-diameter wheels to lower the chassis and thereby improve the cars' stability. The LeSabre also had gimmicks that didn't make it into production until many years later: such as a rain activated convertible top, and a hydraulic jack for each wheel.

Buick's experimental model, the Questor (1983) had doors that opened with a laser 'key' and a flat screen inside to show the driver's position on a map. Some manufacturers have already taken over this idea. The Questor was also equipped with an anti-theft system, automatic height adjustment, and television monitors in place of rearview mirrors.

George Dyle, editor of the international car magazine 'Nova Car': "Electronics, integrated circuits and computer technology have successfully been introduced in the automotive industry. Now, by the end of the twentieth century, we see that map reading with the help of satellite navigation is available for every car.

Using TV cameras has become quite common now. It is especially practical for large trucks and buses. Many cars have a radio-frequency or infra-red remote control for the central-lock of the car doors. What we have seen so far is that most of the ideas have become reality but sometimes more than twenty years after the introduction on motor shows in experimental cars". Ford stylist, Dave Rees: "I am sure that many of the sci-fi looking features can be put into production before the year 2000. Already most models have a perfect aerodynamic shape and a computerized system that raises or lowers the car for maximum aerodynamic performance. Our most recent experimentals are loaded with such technological features.''

Today, car manufacturers promise us that they will get more power out of smaller engines. Fuel economy and cleaner exhaust gases will have to be foremost in the minds of the designers. New concepts will be tested and developed. Volkswagen's Golf is going to concentrate on a traditional engine that is switched off automatically when the driver slows down or stops. Ford is experimenting with the Australian orbital two-stroke engine, which they think will have the future. Audi is going to use aluminium for the space frame and body.

Toyota will use more carbon fibres in the engine itself to make it lighter and to reduce friction.

For fuel economy, the car of the future will have an excellent streamline and it will be lighter. This can be done by using aluminium or carbon fibres instead of steel. On the other hand, the lighter cars must be safer. So, strong but light materials will have to be found to replace the heavy metal parts.

While car manufacturers are concentrating on safety, environment and economy, the designers will go on using their creativity in building dream cars for the 21st century. International co-operation has been replaced by inter-continental co-operation. We speak about world cars, rather than European, American or Japanese cars. I wonder what man and technology will dream up next!

1. Read the text and look for the missing information in the following table:

Year	Manufacturer	Dream car	Features
1951	(A)	LeSabre	1 small diameter wheels
			2 (B)
			3 (C)
(D)	General Motors	Cadillac Cyclone	1 (E)
			2 radar warning device
1961	Ford	(F)	1 infrared camera
			2 (G)
			3 (H)
			4 computer-controlled guidance system
1983	General Motors	Buick (I)	1 laser key for doors
			2 (J)
			3 (K)
1997	(L)	Golf	(M)
	Ford		Orbital 2-stroke engine
	Toyota		(N)

2. Answer the following questions:

a. How long can it take before ideas for concept cars are used in production-line cars?
b. Which of the ideas of experimental cars are used nowadays?
c. Can you think of three options that you would like to have in or on your own car?
d. In the 50s and 60s manufacturers wanted to show off with their products. They invested a lot of money in experimental cars. They still do, but there has been a change. What do you know about this change?
e. Give a recent example of designers' creativity.

3. Use the text to find the corresponding words:

Verb form	Other form	Verb form	Other form
to manufacture		to convert	
to	warning	to feature	
to	production	to jack up	
to build		to	computer

2. Early development of the automobile

Europe

For countless centuries man carried with him, or dragged behind him, whatever he had to take with him. Although the invention of the wheel was an immense improvement, physical power of man or animal was needed. James Watt's invention of a steam engine in 1769 had an enormous effect on transport. The Frenchman Cugnot built military steam tractors in those days. His second, larger version was completed in May 1771.

Great Britain

Richard Trevithic, a former professional wrestler, built a steam locomotive in 1804, which was probably the first form of mechanized public transport. One of the most famous and successful engineers was the Englishman George Stephenson, whose 'Locomotive 1' (1814) can still be seen at Darlington. There is no doubt that the developments, improvements and applications of the steam engine in mines, factories, and transportation started the industrial revolution.

The USA

The American Stanley brothers were among the successful producers of steam cars. In 1899 they already produced 200 cars, and their 'Stanley Rocket' (1906) reached a speed of almost 200 km/h. The steam cars were quiet and accelerated quickly without gear boxes or complicated transmission systems. Most steam cars had the engine and boiler under or behind the seats. Apart from that, they still looked very much like the normal, horse-drawn carriages used in those days.

As early as 1839 a Scot, called Robert Davidson, invented a primitive vehicle, driven by an electric motor. However, the electricity came from batteries that could not be recharged. It was the invention of rechargeable batteries by the Frenchman Gaston Plante (1865) that opened up new possibilities for electric traction. On 29 April 1899 the world speed record on

land over 1 km was set at 99.2 km/h near Paris. The problem with electric cars is that they can either go quite fast for a rather short time, or they can travel a somewhat longer distance at low speed.
In the early 1900s the electric car was popular for town rides. Elegant ladies were driven to shops and hairdressers. The cars were clean, easy to drive and usually had a stick for steering. Brakes were sometimes magnetic. A disadvantage was (and still is) the weight of the batteries. A set for average car would weigh 500 kg. The first New York taxis were electric cars with batteries placed in a box with a total weight of 1,000 kg. A hydraulic lift system was used to replace the box. Some cars had special adapters to recharge the batteries from the 550 V tram wires. The limited distance – approximately 100 km at 20 km/h – was the reason why most of the electric cars disappeared. One of the last survivors, Detroit Electric, stopped production in 1938.

The petrol engine
By far the most important step forward was Lenoir's invention of the 'explosion engine' (1858) in which he ignited gas to get motion. This engine was greatly improved about twenty years later by the German engineer Otto, who built an engine in which the gas was compressed before it was ignited.

In 1886 another German, Karl Benz, built a 'horseless carriage' driven by an engine burning petrol instead of gas. His three-wheeled vehicle is usually seen as the forerunner of today's automobile. Because of their solid tyres and the bad road conditions in those days, the cars were bumpy to ride in. Moreover, cars with petrol engines were slow and very noisy. Nevertheless, they replaced steam and electricity because they were more practical and became more and more reliable.

Growing demand and production
The demand for cars became greater and greater. In 1903 Randsome Olds built 4,000 cars. New techniques were needed to manufacture them in such large numbers. The only way to meet the demand was mass production. Henry Ford introduced the moving assembly line for his famous Model T. In August 1913 it took 13 hours to make the chassis. In January 1914 it took only 1 hour and 33 minutes! By the way, did you know that 15,000,000 T-Fords were produced between 1908 and 1926?

World War I (1914-1918) was the first war in which cars played an important role. When the German troops invaded France, hundreds of taxis transported soldiers from Paris to the battle fields. The petrol engine was used not only for transport on land and sea: in 1903 two brothers, Orville and Wilbur Wright, built a car engine into an aircraft. The age of aviation had begun (Kitty Hawk, North Carolina). 'The Flyer' is now in the Air and Space Museum in Washington, DC.

As we have seen, the 20th century is the age of transportation. Automobiles, produced in large quantities, needed more roads of better quality, and more service stations. Development includes change of shape, weight, comfort, speed and safety. Safety, not only for passengers but also for the environment. The development, of course, has no end and will go on as long as there are automobiles in this world.

1. Read the text and look for the information that you need to complete the text:

Year	Name	Event	Country
1769		improved the steam engine	Great Britain
1771	Cugnot		
1804		1st public railway	
1839		1st electric vehicle	
1858			France
1886		1st petrol driven vehicle	
1899		built 200 cars in one year	U.S.A.
1903	Wright Brothers		
1926		end of production T-ford	
1938	Detroit El.	end of production of…	

2. Which words in the text tell you that…

- it lasted *a very long time* before the automobile was discovered?
- James Watt's invention *was better* than the others?
- Cugnot's tractor *was finished* in 1771?
- *many people had heard* about George Stephenson?
- *it is certain* that the steam engine played an important role in the industrial revolution?
- it is surprising that the Stanley Bros produced 200 cars *in only one year*?
- the 'Stanley Rocket' *just did not reach* 200 km/h?
- Robert Davidson's invention was *very simple*?
- batteries *can be used more than once* since 1865?

3. Use the information in the table of speed records to write down complete sentences:

Example: In 1964 D. Campbell set the speed record on land at 648 km/h in his turbine driven Bluebird near Lake Eyre in Australia.

Year	Propulsion	Name	Driver	Speed	Place
1964	turbine, wheel drive	Bluebird	D.Campbell	648 km/h	Lake Eyre, Australia
1991	piston engine	Speed-o-motive	Al Teague	696 km/h	Bonneville, UTAH, USA
1970	Rocket engine	Blue Flame	G. Gabelich	1001 Km/h	Boneville, UTAH, USA
1983	Jet engine	Thrust 2	R.Noble	1019 Km/h	Black Rock Desert, USA

3. Tunelling

Apart from natural tunnels, man-made tunnels have been used for thousands of years. As early as 2160 BC a 900 m long pedestrian tunnel was built under the Euphrates River in Babylonia. The brick-lined tunnel connected the Royal Palace with the temple. It was constructed while the river was diverted.

The Romans built tunnels for the water supply of their cities. Consequently, they needed a similar system to get rid of sewage. In 36 BC they built the largest of the ancient tunnels we know of. It was a 1,500 m long road tunnel, measuring eight by nine metres, near Naples. To remove the hard rock, they made fires, thus heating the rock surface. Then they threw cold water at these hot parts so that the rock broke. It must have been a very smoky atmosphere down there in these ancient tunnels. Oxygen level must have been far below average.

Tunnels have played important roles in many stories and films. Who has not read the stories or seen videos of old castles which had secret escape tunnels? And what about the prisoners of war in the Second World War, who dug their own escape tunnel to get away from the prisoner of war camp, Stalag Luft?
With the industrial revolution and the development of road and rail transport, the need for tunnels increased. A good example of an early railway tunnel is to be found in The Alps. The 13.7 km long Mont Cenis Tunnel (1857-1871), between France and Italy, is still among the longest of its kind.

With the application of new materials, such as reinforced and prestressed concrete, tunnels became more than a horizontal connection between one side of a mountain and the other. Since the beginning of the 20th century many tunnels have been constructed under big cities to meet the demand for improved transportation. Modern cities could not possibly cope without the underground railways and the many tunnels for automobiles.

Building tunnels has always been a dangerous kind of work.
In ancient times constructions such as pyramids and tunnels took decades and in some cases, people didn't even live long enough to see their work finished. Thousands of people, in ancient times often slaves, lost their lives during or as a result of the work. The worst disaster in tunnelling is the one in which about 2,500 people died of silicosis, a lung disease, as a result of their work in the Hawk's Nest hydroelectric tunnel in West Virginia, USA between 1931 and 1935. Times have changed and tunnelling technology has improved. Today tunnelling is an efficient and effective technology which also provides a vast improvement in worker safety.

Surveying the site
Before the actual construction work can begin, engineers must do soil tests to determine the nature of the ground so as to find the best route for the tunnel. The method of tunnelling does not only depend on these data. Nowadays computers have taken over a lot of the calculations that have to be carried out before any decisions will be taken. It goes without saying that modern tunnels meet the strictest safety demands. Moreover, environmental effects are carefully studied and taken into account before the real work begins. A team of engineers select the best possibilities and then they decide upon a design for the tunnel. Special techniques, such as seismic tests, enable the civil engineers to get a clear view of the actual situation.

Modern tunnels

The Channel Tunnel is a good example of modern tunnel technology. The tunnel boring machine (TBM) – with a cutting head measuring 8.7 metres in diameter – ate its way through the soil with an average speed of 160 metres a week. The TBM, nicknamed Goliath, was not only used to bore the tunnel, it also placed the rings of the lining segments. The project started in 1988 with preparations on both sides of the Channel. In December 1991, the miners cut through the last few inches of chalk between the UK and France. The largest tunnel will undoubtedly be the 57 km long tunnel under the Mont Blanc between Switzerland and Italy. As with other tunnels, this one will not only save time, but also protect the environment.

The Betuwe Railway

Even in a flat country like The Netherlands, tunnels are being constructed. Some for trains, some for traffic, cyclists, pedestrians and even for animals (badgers and toads). In cities like Amsterdam and Rotterdam, part of the mass transport system uses underground railways. Tunnels under channels and rivers connect the main roads, replacing ferries and even bridges. The latest spectacular tunnelling project is the so-called Betuwe railway to link Rotterdam's harbours with the German 'hinterland'.

1. Study the following tunnelling facts, then answer the questions below:

Time	Place	Kind of tunnel	Length	Remarks
2160 BC	Babylonia	for pedestrians	900 m	oldest known
36 BC	Naples, Italy	road tunnel	1.5 km	9 m wide
1857-1871	France-Italy	railway tunnel	13 km	in the Alps
1927	Marseille, Fr.	shipping	7 km	closed in 1963
1937-1944	New York	water supply	169 km	4.1 m (diameter)
	San Francisco	road tunnel	165 km	24 m wide
1969-1980	St. Gotthard	road tunnel	16 km	19 killed
1972-1988	Hokaido, Japan	railway tunnel	54 km	34 killed, 240 m beneath sea level
? -1991	Chicago	sewerage	81 km	4 million people
1986-1994	London	water supply	76 km	London Ring
	London	metro railway	400 km	total length
1987-1994	Dover-Calais	rail shuttle	50 km	3 sections
1950-1990	Moscow	metro railway	38 km	longest single line

Questions:

1. Which of these tunnels is the oldest one?
2. Which is no longer in use?
3. Which is the longest traffic tunnel?
4. Which tunnel is so wide that more than 90 million vehicles pass through it every year?
5. Which tunnel cost the most lives?
6. Which tunnel cost the most time to build?
7. What is the longest tunnel in Europe?
8. Which tunnel is the deepest?

2. Find the matching words with the help of the text:

Verb	Noun	Verb	Noun
	development	construct	
apply		replace	
begin			excavation
improve			risk
transport		tunnel	

4. From telegraph to videophone

Written messages
The problem of a written message used to be that it had to be taken from one place to another. Until the end of the nineteenth century, this had been done by physical power, i.e. a person or animal transported the message. A courier was – and still is – one way, another is the carrier pigeon, also called homing pigeon. Well-known means of transmitting messages in former centuries were flags, signposts, and mirrors.
Incredible though it seems, in 1794 a short message was passed from Lille to Paris (200 km) in only two minutes by means of 22 semaphore stations using signposts with movable arms.

Electric power replaces manpower
In 1820 it was understood that an electric current could move a magnetic needle as used in a compass. This principle of electro-magnetism was used in the early telegraphs. An electric current moved the needle. Certain combinations of movements formed letters, and in turn, the letters formed words. In 1837 a 5.5 km telegraph line between Munich and Bogenhausen was based on this principle and it is regarded as one of the earliest telecommunication lines in the world.

In that same year an American, Samuel Morse, publicly demonstrated his first telegraph. It consisted of an interrupter, an electro-magnetic coil and a scriber. As a roll of paper moved continuously along the scriber, a line appeared on the paper as long as the current was sent through the wire. A very short pulse of electricity would produce only a dot.
This Morse code used combinations of dots (= points) and dashes (=lines) for letters and numbers.

Connecting the world
The first successful telegraph connection between Calais and Dover was made in 1851, and fifteen years later the first durable cable was laid between England and the United States. During the twentieth century, developments in telegraphy made it possible to transmit electric impulses which could form real letters and numbers at the other end of the line instead of the Morse code: the telex was born. In its turn, the telex has been replaced by a device called (tele) fax, or facsimile, combining the properties of the computer with the principles of the telex. Further integration of computer technology into the world of telegraphy has become the password for the future: telecommunications.

Spoken messages
So far, we have spoken about written messages, either in code such as the Morse system, or in real writing such as telex and fax. What about the spoken word? The human voice and human speech are among the highest forms of communication. However, the human voice does not carry very far. For thousands of years, man has tried to find ways of solving this problem. Well-known means of communication over long distances are the African drums and the smoke signals of the American Indians

The first telephone
The invention of the telephone by Alexander Graham Bell was a revolution in communication between people. He was fascinated by the idea that it might be possible to transmit speech by means of a wire. One day in 1876 Bell shouted through the telephone to his assistant Watson to come and … he came! Watson heard what Bell shouted into his mouthpiece. One year later, Bell proudly demonstrated his invention at a fair in Philadelphia by talking to his assistant who was 18 miles away.

In the first half of the twentieth century, connections between telephones had to be made manually by means of plugs on switchboards. In the 50s, these were replaced by automatic exchanges. Modern exchanges consist of computer-controlled electronic systems. In the meantime, not only the telephones and telephone exchanges developed, the transmission of the spoken word revolutionized, as well.

Glass fibre cables and radio wave transmitters have replaced thousands of kilometers of the conventional copper-aluminium wires increasing both quality and capacity enormously. This led to further developments of which the videophone is one of the latest results.

Nowadays a modem can send more information in a much shorter time than telex, fax or spoken words can. The combination of these techniques and their integration into the telecommunications network has become the password for the future: telegration!

How it works
The principle of the telephone is quite simple. Bell knew that sound, so also the human voice, is nothing more and nothing less than vibration of the air. It is made by the vibration of the vocal cords and it is received by our eardrums. The problem was how to transmit the human voice over longer distances and through other materials than air.

If someone speaks into a telephone, the air causes a special diaphragm in the mouthpiece to vibrate. The motions of this diaphragm produce a varying magnetic field. In its turn, this magnetic field generates a varying electric current which corresponds with the motion of the diaphragm. The current is then passed to another telephone where the process is repeated, but in reverse order. This means that the current moves a diaphragm which produces audible vibrations of the air in the earpiece. Although years have gone by, this principle is still the basis of modern telephony, whether a call comes from your neighbour or from Australia via satellite.

Facts, features and future of digitalization

1822 Charles Babbage designs a mechanical calculating machine
1944 the first real computer is built during WWII
1981 IBM introduces the PC (personal computer)
Satellites become more and more important for observation and communication.
1982 The compact disc arrives
1985 Digital recorders for the consumer market (DAT)
Digitalization of the telephone network takes shape (optical fibres and satellite communication)
1992 Digital compact cassette (DCC) is European standard
Digital information carriers are compressed for more storage space (mini compact disc)
Computer games have conquered the world of toys and games (Microsoft, Nintendo)
Laptops and notebooks become popular
Global expansion of digital telecommunications
Digitalization in the film industry, e.g. Snow White, Jurassic Park
1994 Micro miniaturization continues (CD ROM)
Personal computers become faster and more powerful and recyclable
Video telephone for the consumer market (limited motion)
Improved quality in digital motion: PC and telephone
Interactive video becomes popular (CD-I)
Familiarization with 100 Herz TV to improve quality
1996 Video CDs begin to replace tapes: laser disc and CD – I
E-mail begins to replace the conventional postman in business correspondence. E-pay stimulates E-crime
Services via TV and telephone become popular: banking, TV-shopping, (holiday) reservations, etc.
2000 Digital information carriers have taken over the first place from paper for storing and sending information (faster, more environmental-friendly)
Computer-supported learning (Interactive CD&TV)
2015 Several countries fully fibre-cabled (Holland, Japan, France. The USA not before 2025)

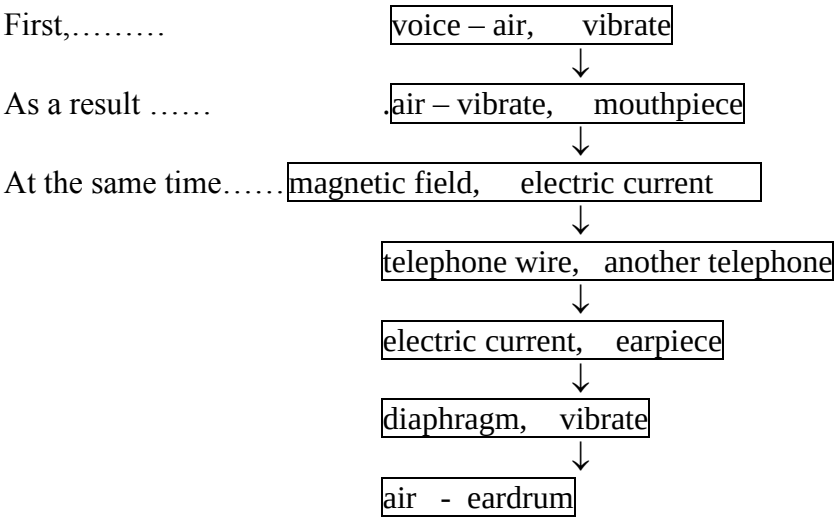
1. Read the text and look for the missing information:

Date	Principle of transfer of information
490 BC	
1794 AD	
	First telegraph line near Munich
1851	
	Bell applies for a patent on his ‘telephone’
1877	
	First durable cable between GB and the USA
	‘telegration’ and ‘telecommunications’ have become passwords for modern society

2. Prepare an oral summary of this text by completing the description of the principle of telephony:

Example: A telephone is a device for transmitting sound, especially speech, by wire from one place to another. How is it possible? The human voice is made by the air passing through the larynx (throat) and makes the vocal chords vibrate. The vibration is received by eardrums. The eardrums 'hear' the sound. The brains transmit the message.

This process takes place in the handset of the telephone. Tell systematically what happens. You can use the words in the flow diagram as a guideline.



5. Rockets

The following text is about the development of the rocket, beginning with the earliest information. The next is too short to give a complete picture, of course.

A. Reports confirm the use of rockets in military operations in various parts of the world, such as China, India and Europe, ever since the 12th century.

B. Two centuries ago a more peaceful application for the use of the rocket was invented: to shoot a lifeline to a ship in distress.

C. When you read this, some 7,000 lives have been saved by Martin-Baker ejection seats. They are used in military fighter planes to rescue the pilots in case of emergency. A rocket shoots the pilot in his seat clear from the plane before the parachute deploys. Less than two seconds later the parachute opens to bring the pilot down safely.

D. One of the American pioneers in rocketry was Robert H. Goddard, who was the first man to design, build and launch a liquid propellant rocket. It was launched in 1926 and travelled a distance of only 56 m at a maximum height of 12.5 m.

E. War rockets, propelled by a charcoal gunpowder, were described by Tseng Kung Liang of China in 1042. Later Chinese soldiers were reported to have used rockets in their war against the Mongols.

F. Sir Isaac Newton published his 'Principia' in sixteen eighty-seven. His law of gravitation states that every particle of matter attracts every other particle with a force

that varies with the masses of the particles and the distance between them. Doubling the mass doubles the attraction. Doubling the distance reduces the attraction to a quarter. This theory helped astronomers to explain the motions of the planets. In another law Newton stated that to every action there is an equal and opposite reaction. This is the principle on which a rocket works.

G. In the early 60s the USSR claimed they possessed a rocket with a range of 30,000 km.

H. In World War II German scientists developed the V-2 propelled by alcohol and liquid oxygen. With a thrust of 13,000 kg and a range of 350 km, the V-2 was the forerunner of the present liquid-propellant space rockets. One of the pioneers in this field was Wernher von Braun, a German scientist who was taken to the USA after the war. His name is also spelled: Werner Vanbrown.

1. Fill in the corresponding letters of the text 'Rockets', so as to put the paragraphs in chronological order.

First is text …..
Second is text …..
Next is text …..
After that text …..
Then follows …..
After that comes text …..
Subsequently text …..
Finally, there is text …..

2. Read the text and answer these questions:

- Which invention in the text has been replaced by the actions of SAR (Search and Rescue) helicopters?
- What is an ejection seat?
- What is the difference between the rockets described by Tseng Kung Liang and those designed by Mr. Goddard?
- What is gravitation?
- What can you say about the development of the rocket between 1945 and 1965?

3. Fill in the right prepositions from the box:

by (2x), down, from, in, of (2x), on, since, with

1. Rockets have been used …….. the Middle ages.
2. The whole crew was rescued ……..the ship in distress.
3. Many pilots have survived because they were saved …….their ejection seats.
4. The parachute brought the pilot …….safely.
5. He is a pioneer ……this field.
6. The rocket reached a height…….12,000 m.
7. Rockets for fireworks are propelled ……. gunpowder.
8. The distance varies …….the shape of the vehicle.
9. The engine works ……the principle of action - reaction.
10. The V-2 was the forerunner ……..the modern space rockets.

6. Two types of engines

Two types of engines are commonly used for cars, the four-stroke petrol engine and the four-stroke diesel engine. Although the two – stroke engine is basically more powerful, engineers have not yet been able to make it work better and cleaner than the four-stroke ones. However, recent developments in Australia have opened up new possibilities.

The combustion engine was invented by the Frenchman Jean Etienne Lenoir in 1858. His engine used gas instead of the present petrol, but the principle is still the same. Lenoir's invention was based on the idea that burning or exploding fuel can push a piston down. One or more of these pistons going up and down can turn a shaft just as your legs, going up and down can turn the crankshaft of your bike. This principle of changing an up-and-down motion into a rotating motion had already been proven useful in steam engines.
It was not until 1883 that Gottlieb Daimler succeeded in running a four–stroke gasoline engine for transport applications. He put a small engine in a 'horseless carriage' and the motor car was born. The petrol engine appeared to be much more practical than the heavy steam engines used in those days.

The principles of the four-stroke engine

The pistons move up and down in the cylinders, usually four. These cylinders are bored into an engine block and they are lined with especially hardened steel. Each cylinder has one or more inlet valves and one or more exhaust valves. The space in the cylinder above the piston is called combustion chamber.

The four cycles of the four-stroke petrol engine

1 The intake or induction stroke
Situation: the intake valve is open, and the piston is on its way down.
Process: the down-going piston causes a partial vacuum, so that either a mixture of air and fuel is sucked into the combustion chamber or the fuel is injected into it.

2 The compression stroke
Situation: the valves are closed, and the piston is on its way up.
Process: the up-going piston compresses the mixture of air and fuel inside the combustion chamber. A typical compression ratio is about 9:1.

3 The combustion stroke
Situation: the valves remain closed, and the piston has reached its highest point.
Process: a spark from the spark plug ignites the mixture. The exploding mixture pushes the piston down with great force.

4 The exhaust stroke
Situation: the exhaust valve is open, and the piston is on its way up.
Process: the up-going piston pushes the burnt gases up and out of the combustion chamber through the opened exhaust valve.

The basic principles of the two-stroke engine

The first successful application of a two-stroke combustion cycle was devised by Sir Dugald Clerk in 1880. Clerk's concept combined two cycles to provide a power stroke for each revolution of the crank, whereas the four-stroke engines provide a power stroke every two revolutions. With twice as many firing pulses per revolution, a three-cylinder two-stroke can be compared with a six-cylinder four-stroke. In a conventional two-stroke engine, every upward stroke exhausts the cylinder before compressing the mixture, while each downward stroke generates power and sucks in fresh mixture of fuel, oil and air from the sump.

A two-stroke engine has ports instead of valves to get the mixture into and out of the combustion chamber. This not only saves space, as there is no valve-train (valves, valve stems, rocker arms), it also makes a lubrication system superfluous.
As a result, the two-stroke engine is lighter and less expensive than the four-stroke. Recent developments offer features such as automatic oil supply, multi-port loop, electronically controlled fuel injection, and simple but effective catalytic systems.

1 The first stroke (phase 1)
Situation: the piston has moved to its lowest position in the cylinder: the bottom dead centre (BDC).
Process: the downward motion of the piston uncovers the exhaust port and then the transfer port, allowing the loop scavenging of fresh compressed air to drive out all the spent gases and fill the combustion chamber for the next phase. The replacement of spent gases by a fresh mixture is called scavenging.

2 The second stroke (phase 2)
Situation: the piston has reached its highest position: the top dead centre (TDC).
Process: the upward motion closes both ports and compresses the mixture above the piston. This motion also causes an underpression in the crankcase. Just before the piston reaches its TDC, it uncovers the inlet port, also called induction port. Because of the underpressure, the mixture of air, fuel, and oil is sucked into the crankcase.

Note: In many types, an electronically controlled forced-air fuel mixture is injected directly into the combustion chamber.

1. Fill in the table

Part	Two-stroke engine	Four-stroke engine
spark plug	+	+
fuel tank		
fuel pump		
inlet valve		
exhaust valve		
camshaft		
piston		
piston rings		
oil pump		

2. Fill in the missing information.
(1-5 are about the 4-stroke engine, and 6-10 compare the two types.)

On the induction stroke the intake valve is open, otherwise……..
When the piston goes up during the compression stroke, the combustion chamber …… and as a result the pressure…….
All the valves are closed and the piston moves up. This must be the …….. stroke.
A 4-cylinder 16 V engine has ……intake and exhaust valves per cylinder.
In engines with fuel injection, only air comes in through the intake valve(s) while in other types …….
In contrast to the 4-stroke engine, which produces a power stroke every two revolutions of the crankshaft, the 2-stroke engine …
Unlike the ……..-stroke engine which has an oil reservoir, called sump, under the crankshaft, the……..-stroke engine ……
Both ……. and ……. engines have pistons to compress the mixture.
In general, the emissions of …….-engines are more harmful to the environment than …….
Two-stroke engines have ports for inlet and scavenging, 4-stroke engines, however, need…….

3. Role play
Student A describes the 4-stroke engine, student B responds by telling the differences between the two types.
Explain: - the most important parts,
- their functions,
- and how they work together in the overall process

Example: A: The 4-stroke engine has one power stroke in every 4 movements of the piston.
B: that is different with the 2-stroke engine. It produces one power stroke in every 2 moments.

7. The chain saw

Seven golden rules

1. Read the complete owner's manual before operating a chain saw.
2. With basic understanding of kick-back, you can reduce or eliminate the element of surprise. Surprise contributes to accidents.
3. Make sure you have a good grip with both hands, the right hand on the rear handle, the left hand on the front handle with thumbs and fingers encircling the handles. Keep handles dry, clean, and free of oil or fuel.
4. Keep by-standers and animals out of the work area. Make sure that the area is free from obstacles.
5. Cut at high engine speed and do not overreach or cut above shoulder height.
6. Follow the manufacturer's sharpening and maintenance instructions for that particular chain saw.
7. Consult an official dealer in case of doubt about use, maintenance or repair.

Kick-back safety precautions. Warning!
Kick-back may occur when the nose or tip touches an object, or when the saw gets stuck in the wood.

- In some cases, tip contact may cause a lightning-fast reverse REACTION, kicking the guide bar up and back towards the operator.
- Pinching the chain along the top of the guide bar may push the bar rapidly back towards the operator.
- Either of these reactions may cause the operator to lose control, which could result in serious personal injury.

Do not rely on the safety devices built into the saw. As a chain saw user, you should take several steps to prevent accidents or injury.

Other safety precautions

8. Do not operate a chain saw when you are tired.
9. Use safety clothing: safety footwear, protective gloves, and eye, hearing and head protection.
10. Move the chain saw at least 10feet (3m) from the fuelling point before starting the engine.
11. Shut off the engine before setting the chain saw down or before moving to another spot.
12. Do not operate the chain saw in a tree unless you have been specifically trained to do so.

Fuel and lubrication oil. Warning!
The chain saw is equipped with a two-stroke engine. Always run the saw with fuel, which is mixed with oil. Provide for good ventilation when handling fuel.

Clothing
Proper clothing and equipment protect the operator from many potentional hazards
Always wear:

a) safety helmet
b) ear protection
c) visor and/or goggles
d) heavy – duty non – slip gloves
e) safety pants or chaps
f) boots with reinforced toe caps and non – slip soles.

Fuel
Always use a minimum octane number of 90.
Two – stroke oil

- For the best performance, use Husqvarna two-stroke oil especially developed for chain saws. Mixing ratio 1:50 (2%).
- If this is not available, you may use another two-stroke oil of good quality. Mixing ratio 1: 33 (3%).
- If no two-stroke oil is available, motor oil SAE 30 can be used. Mixing ratio 1:25 (4%).
- Never use multi-grade oil (10W – 30).

Chain oil

- The chain lubrication system is automatic. Always use special chain oil with good adhesive characteristics

- If chain oil is not available, gearbox oil EP 90 can be used.
- In temperatures below 0^{o} C (32^{o} F), some oils become less viscous. This can overload the oil pump and result in damage to the oil pump components.

Maintenance. Warning!
Dirt and wear will affect the function of the brake. Carefully follow all maintenance instructions. If anything is incorrect, contact your dealer.

Chain brake
The saw is equipped with a chain brake to stop the chain immediately in the event of a kick-back. The brake activates when the guard is pushed forward.
If the brake is activated, it is disengaged by pulling the front hand guard back towards the front handle.

General working instructions
Never work alone! Make sure someone is ALWAYS within sight and hearing distance in case of problems! Make sure a First Aid Kit is present, especially if you work outside, away from buildings. Avoid cutting in bad weather conditions such as dense fog, high winds or heavy rain.
When cutting with the bottom part of the saw, the saw will be pulled away from you towards the wood you are cutting. (1) Also, the sawdust will be directed towards you. In spite of that, it is the safest way as it ensures the best control.
Sawing with the upper part makes the job much more tiring while the saw is more difficult to control, which increases the risk of kick-back and pinching. (2)

Technical specifications

Engine	
Displacement	2.2 cu. in/36 cc
Idling speed	3000 rpm
Max. speed unloaded	13,000 rmp
Fuel and lubrication	
Type of carburettor	Walbro WT 202
Fuel tank volume	0.73 pint/0.40 litre
Oil tank volume	0.36 pint/0.20 litre
Weight	
With guide bar and chain (15”)	12 lbs/5.4 kilos
Chain and guide bar	
Standard bar length	15 in/38 cm
Recommended max. bar length	18 in/46 cm
Chain speed at max. power	16.3 m/sec

Warning!!
These operating instructions and safety precautions are real and authentic, but incomplete! The original manual contains 20 pages of information and illustrations. Before operating a chain saw refer to the original owner’s manual of the saw you are going to use.

Discuss what should the owner's manual contain. This list may help you:

adjusting the chain, daily inspection, first aid kit, lubrication, replacing the chain, (re)fuelling, starting the engine, sharpening the chain saw, storing the saw, technical specifications, operational instructions, personal protection, safety for other people and for the environment

8. Micros and chips

1. The first true electronic computers were built in Britain during World War II. Unlike earlier mechanical adding machines, they were programmable and had memories. They could multiply two numbers of 10 figures in six seconds. These computers were used by scientists for cracking enemy codes. Information about them was kept to secret for many years. When peace came, a few big business corporations and governments began to use computers, but no one else could afford them. The first one available for civil purposes was the ENIAC (Electronic Numerical Integrator and Calculator).
These first-generation computers were built before transistor switches were invented. They used valves instead. These were about 7 cm high and made of glass, and there were as many as 18,000 in a computer. They frequently failed, and teams of engineers were needed to locate valves in the complicated circuits.

2. In the 1950s transistors were invented in the USA. They did the same job as valves, but were smaller, cheaper and faster. Soon transistors were replacing valves in all kinds of electronic equipment, such as radio, as well as computers.
Since then computers have become smaller, cheaper and more powerful.
By the 1960s, the US government was competing in the space race and needed small, powerful computers for its spacecraft. They financed research into 'integrated circuits', which were a new invention and consisted of several transistors combined in a tiny silicon chip.

Silicon chips were an enormous breakthrough, and led to a new science called micro-electronics in the 1970s. The main centre of research was Santa Clara Valley in California, which became known as Silicon Valley. Microelectronics engineers learned how to pack more and more components onto a single chip. This was called a microprocessor. A computer circuit that would once have filled a whole room with thousands of valves could now be contained in a 5 mm square silicon chip.

3. This new technology led to the production of microcomputers, also called micros, which a small business or even a single person could afford. In the 80's, a new type of computer conquered the world, the personal computer. Slow, and with little memory capacity at first, they soon became more user-friendly as practical programs came on the market.

As components became smaller and smaller, they shrank in sizes: smaller than one micron (one thousandth of a millimetre). This technique of submicron technology is applied in the microchip. Mega chip technology, as developed in Europe e.g. by Philips and Siemens, led to VLSI chips (very large scale integration) on pcbs (Printed Circuit Boards).

4. A so-called chip is a small box of silicon. The surface of this chip is covered with minute and very complicated circuits. The proper name for a chip is 'integrated circuit' or IC. The metal legs on the chip's case carry electric signals to and from the chip.
Chips are made from very pure silicon crystal. The crystal is shaped into rods and then cut into slices about 100mm in diameter and 0.5 mm thick. Each slice will make about 500 chips. Silicon is made by purifying sand, and so the chips are quite cheap.

5. Nowadays, computers help to design circuits for chips. The circuit design is placed on the chips by a photographic process and the slices of silicon are put in a furnace. There, the circuits are chemically etched into the silicon. Many different circuits can be etched into the same chip, and the process can take several weeks. The finished chips are tested on the slice with tiny probes under a microscope, and faulty ones are marked.
The silicon slices are then cut into individual chips with a diamond saw and the faulty ones are thrown away. Finally, the perfect chips are packaged into protective cases which can be fastened onto a printed circuit board (pcb).

1. Match the following titles with the corresponding paragraphs.

a) How chips are made
b) What is a chip?
c) The first real computer
d) The application of new technologies
e) Microminiaturization

2. Finish the following Part-Function table

Part	Function
Computers	
Photographic process	
A furnace	
	to cut the chip into individual chips
	to protect the perfect chip

3. Make a flow chart showing the production process of chips.

9. The information superhighway

The developments in telecommunication, information technology and computerization have led to combined applications in new fields of work: telematics and telegration. To exchange information, the existing network of the seventies could no longer cope with the demand. New roads for the transport of information have been developed and have been installed, opening up possibilities for ISDN (Integrated Services Digital Network). This network is commonly called the information superhighway. What is the foundation of this electronic superhighhway?

OFCs

Optical fibre cables are replacing much of the conventional telephone cable network within this decade. Like an enormous underground spider web, it will connect countries as well as almost every building in each of the countries. In these buildings themselves many rooms, offices and workshops will be part of the new telecommunications system, based on glass fibre cables.

The principle of using light to transport speech was already used by Alexander Graham Bell, the inventor of the telephone. In 1880 he succeeded in transmitting a human voice by means of reflected sunlight.

But the 'photophone' did not stand a chance until many years later when two British scientists suggested to use thin strands of glass in telecommunications (ITT 1966). Experiments with leds (light emitting diodes) and semiconductors followed resulting in the use of a laser beam to transport messages.

The glass fibre cable, also called ofc (optical fibre cable) consists of strands of glass each as thin as a human hair. Unlike the telephone cable which transports energy in the form of electricity, the glass fibre cable transports energy in the form of light. This has several potential advantages:

Size

Copper cables are big and bulky: a typical long distance cable has a diameter of 6.5cm, whereas th**e ofc** has a diameter of only 1cm.

Weight

Copper cables are heavy, unlike **ofcs** which weigh only a fraction of a conventional copper/aluminium cable.

Price

Copper is becoming rare. The raw material for **ofcs** is silica (sand) and there is plenty of it.

Ease

Because of its weight and size, the **ofc** is easier to transport and to install.

Quality

Unlike copper cables, ofcs are not affected by other (high voltage) electric currents. Glass fibre cables have a much better sound quality because there is no interference.

Equipment

Traditional copper cables need amplifiers every two kilometres or so, whereas ofcs of high quality need amplifiers every one hundred kilometres. This not only makes installation a lot easier and cheaper, it goes for maintenance as well.

Capacity

Glass fibre cables can carry many more signals than copper cables can. A copper cable cannot carry all the information necessary for picture transmission, but an ofc can. In fact, a capacity of 2 Mbit/s (megabits per second) is needed and an ofc can provide that and a lot more.

All these features make optical cables the best choice. One of the longest glass fibre cables (16,000km) lies at the bottom of the Pacific Ocean between America and Japan. The longest one is 22,700km. It connects Great Britain and Japan.

Now let us have a closer look at the optical fibre cable. In the first place the glass fibre core must be of very high quality. Normal glass would not be good enough, as it absorbs too much light. Glass fibre is over 40,000 times as pure as the glass in a normal window.

Multiplexing

The enormous capacity is made possible by a compression technique called multiplexing in which the various signals are put behind each other in the same strand of glass. At the end of the cable the signals are decoded by the demultiplexer before each signal is fed to its

destination. A typical strand of glass fibre (as thin as a human hair) can handle 5,000 different 'calls' at the same time.
Different sorts of information can be transmitted along the same cable. This makes the cable suitable for isdn: Integrated Services Digital Network. Together with Satcom (satellite communication), ofc networks form the information superhighway, a telecommunications network for telephone, videophone, teleshopping, fax, e–mail, graphic information, home banking, computer data, etc.
Speaking about replacing traditional electronic equipment by state – of – the – art technology: the superhighway may create two classes: the 'haves' and the 'have – nots'. If you can't afford the right equipment, you won't enjoy the benefits, the interactive TV, the access to libraries through your monitor, the medical consultation, etc. Some critics use phrases like 'information apartheid'. Let's hope the information superhighway will be readily available for anyone.

Glossary of glass fibre technology

BIT Acronym of Binary digiT. A single basic unit of information which can only have the value 0 or 1 represented by absence or presence of a very short pulse of energy.

BYTE Acronym of By eight. A standard unit of eight bits of information used for electronic processes e.g. in computers.

FAX Short form of Telefax or Facsimile. The transmission of documents via telephone lines.

ISDN Integrated Services Digital Network. A digital communication network in which various digital techniques are combined e.g. telephone, video data and electronic mail.

KBYTE Kilo byte. Actually in our decimal system exactly 1000, but in the binary system it is 1, 024 bytes (two to the tenth). A 64 K computer has a memory capacity of 64x 1, 024 = 65, 536 bytes.

LED Light Emitting Diode. A light source produced by semi conducting materials.

Mbit Megabit. A capacity of one million bits, actually 1,048, and 676 bits (two to the twentieth). Mbit indicates the memory capacity of an integrated circuit e.g. of an Mbit chip. Mbit/s indicates the number of bits that can pass a medium in a second, e.g. as used in measuring the capacity of a glass fibre cable.

Multiplexing The technique of combining signals of various messages on one cable. In this method, signals of different sources are placed behind each other and transmitted. Multiplexing increases the capacity of e.g. optical fibre cables so that thousands of telephone calls can be sent along one cable simultaneously. At the end of the line a de-multiplexer splits the information into separate phone calls.

Telegration Acronym of TELEcommunication and inteGRATION. The combination of systems, networks and services made possible by the digitalization and standardization of equipment.

1. Choose the correct answer

1. Conventional telephone cables will be replaced by optical fibre cables within the next:
   a. 10 years b. 50 years c. 100 years
2. 'Photophone' refers to the transport of information with the help of:
   a. dots or dashes b. a photo camera c. light
3. LED stands for:
   a. Low Energy Diode b. Light Emitting Diode c.Light Energy Diode
4. Another word of 'Emitting' is:
   a. receiving b. radiating c. transmitting
5. OFSs are best compared to human hairs, because they are both:
   a. very thin b. very thick c. very long

2. Explain the following compound words

A light emitting diode is a diode, *which emits light*.

A copper cable is a cable, *which*……

A glass fibre cable is ……

An optical fibre cable is ……

A long distance cable is …….

The multiplexing technique is ……

3.Use symbols to indicate qualities. Negative quality:--, Positive quality: ++, Neutral: -+

	OFC	Copper cables
Loss of energy	++	
Size	++	+
Weight		
Ease		
Quality		
Equipment		
Capacity		
Price		

10. Hovercraft and other unconventional ships

A normal ship uses most of its power to overcome the resistance of the water on its hull. Large ones have to push aside hundreds of tons of water all the time. However, a speed-boat has a special shape, so that it lifts the bow and a large part of the hull out of the water when it picks up speed. Then, the only part causing resistance is the very small part of the hull which stays in the water.

This same principle is used in waterskiing and windsurfing: there is hardly any resistance once they are at speed. They glide over the water rather than travel through it. The hydrofoil

and jetfoil are other examples. Hydrofoils are fitted with under water 'wings' that lift most of the ship clear of the surface.
They work more or less like aeroplane wings that lift an aircraft off the ground at take-off speed. Contrary to airfoils, hydrofoils only work in water; they do not work in the air. Their effect is that only the foils and the back of the ship, where the propellers are, stay in the water, causing very little resistance compared to conventional ships. The jetfoil is even better; it is lifted completely out of the water. The propulsion system is integrated in the hydrofoils themselves. The jetfoil is faster than the hydrofoil, less bumpy and less noisy. Jetfoils travel at 40knots (70km/h), and are usually equipped with comfortable aircraft seats.

Another unconventional ship is the hovercraft. It hovers (hangs in the air) on a cushion of air, and can travel over (flat) land as well as over water. Powerful turbines keep a constant flow of air under the hull, so that it does not touch the ground or the water.

There are various types of hovercraft for various functions. In Polar Regions large hovercrafts are used to break the ice. Smaller ones are used by the US Coast Guard to stop illegal drug runners in the Gulf of Mexico. The Port of Rotterdam used them for fire-fighting. And of course the armed forces have them for special tasks. The principle of the hovercraft is also used in the medical world. Severe burn cases can lie a film of warm, sterile air without any contact of the hover-bed with the patient's painful body.

One of the largest hovercrafts is the SR-N4 used in the cross Channel connection between Calais in France and Dover in south-east England. It can travel both over land and water with the same ease. The turbines are much noisier than the engines of the jetfoil. The hovercraft is very bumpy to ride, but it is much faster and larger than either the hydrofoil or the jetfoil. This makes it a better ship for busy crossings.

How does it work?
All round the underside of the hovercraft is a flexible skirt, made from strong nylon and hardwearing rubber. Its function is to keep the air under the craft. The design and the materials are of utmost importance as the skirt must keep the air inside when the hovercraft travels over low obstacles on land or waves at sea.

The SR – N4 is fitted with a skirt known as 'bag and fingers'. The bag, which is divided into sections, forms a sort of ring round the underside of the craft. Hanging from the bag are pieces of material, which are called fingers. They work as shock absorbers. Air is blown into the bag and from there it is forced through holes into the fingers, which open out on the inside under the hull. Bag and fingers keep the air under the hull.

The hovercraft leaves port
First, the hovercraft just sits there, its skirt lying all around it. The front section is closed. Then, one by one, the propellers begin to turn, slowly at first but gradually faster. The roar of the turbine engines increases and the lifting fans begin to do their jobs. Very gently the enormous hovercraft rises on its cushion… one… two… three metres high until the bag and fingers are fully inflated. An impressive sight! Next, the captain adjusts the position. The large tailfins at the back of the hovercraft are the third way in which the captain controls his craft. The gigantic vehicle now begins to move. It leaves the concrete landing pad to cross the beach while clouds of sand are blown away from under the skirt. Soon the bow reaches the water line, a fine mist forming around the fingers. At last it is 'full speed ahead' and in a spray of water the hovercraft flies towards the horizon.

Statistics of the SR-N4

Overall length 56.4m	Overall height 11.4m
Overall width 21.6m	Max. weight 300 tons
Fuel load 18 tons	Fuel consumption 4.2 tons per hour (kerosene)
Speed 56 knots (1kt = 1.852 km/h)	Range 150 nautical miles (1 nm = 1.852km)

Frequency 10,000 Channel crossings per year crossing time 30 minutes in good conditions

Answer the questions:

1. Give examples of the advantages of the vehicles mentioned in the text.
2. What are hovercrafts used for?

GYAKORLÓ SZÖVEGÉRTÉSI FELADATOK

1. A Multilingual Internet?

0. As both Asian and European markets use the Internet more and more to conduct business, there will be an increasing need for language choices for the different markets.
1. English is so often used on the Internet that it might make you think everyone in the world speaks English, or at least give you the impression that it is the world's most widely-spoken language. If this were true, it would, of course, bring benefits for worldwide communication and understanding, though it could also possibly become a threat to cultural diversity. English certainly seems to be everywhere, from films to pop music and TV, and from business to science and other fields.

2. Information varies, but suggests that about 75% of the pages on the Web are in English. Yet English is the mother tongue for only 5.4% of the world's population, while a further 7% of the world's population are proficient speakers of English. This means that only around 12% of the world's population can communicate well in English. This figure is nowhere near the total number of people speaking Chinese languages, which, at 20.7%, is much higher.

3. More and more people are accessing the Internet nowadays, including many companies wanting to conduct e-business. As a consequence, the position of English is beginning to change. Both Europe and Asia are growth areas, with businesses increasing their use of the Internet and people would apparently rather buy things online if they can order in their own language.

4. It has been predicted that by 2003 only one third of Internet users will be speakers of English. As a result, companies wanting to reach world markets are beginning to realise that they will have to translate their websites for their various customers.

5. However, creating a multilingual websites is not an easy task. Companies wishing to translate their sites for different markets basically face both technical and linguistic problems. They are unable to use automated translation systems, which already exist in the market, simply because the quality is not good enough for professional use. Businesses all over the world are now faced with this huge challenge.

6. Moreover, translating websites is only the beginning. Customers with questions or problems will need to discuss matters in their own language, for example, while prices will need to be in the local currency. Dates will also need to be in the right format to avoid confusion. Companies will need to adapt their advertising materials so as not to offend different cultures. They may also have to change their way of doing business to suit certain customers – in Japan, for example, as the Japanese do not tend to give their credit card details over the Web. There are also legal issues to take into consideration.

7. Such vast changes will not happen overnight. It is impossible to say exactly how many texts there are on the Web as the number is changing all the time. One thing which is certain, however, is that a growth in the use of Internet is guaranteed. Companies doing e-business simply need time to translate their sites into the various languages

necessary to do business. Meanwhile, more and more material in different languages is being added to the Web at a fast pace.

8. While all this is happening, local companies, with few employees, doing e-business only in the language of their target market and who are aware of the cultural aspects of that market, will certainly be at an advantage. The problems of language and culture could well limit larger companies from expanding and so offer more opportunities to smaller businesses in poore areas of the world.

1. feladat

Olvassa el a szöveget, és párosítsa az alcímeket a számozott bekezdésekkel, a minta szerint. Eggyel több alcím van.

Alcímek	Bekezdések
A. Smaller firms will benefit	
B. False impression	*0*
C. A challenge for translators	
D. Realising the need for variety	
E. Different cultures, different needs	
F. Surprising figures	
G. Time is needed	
H. Personal preferences	
I. Proficiency in English	

2. feladat

Döntse el, hogy az állítások igazak, vagy hamisak

Állítások	Igaz	Hamis
0. 7% of the world population speaks English.		***X***
8. Approximately 25% of web pages are in various languages.		
9. Chinese languages are more widely spoken than English.		
10. Most people prefer to use English when shopping online.		

2. Tandberg Educational IS-10 language laboratory

0) Only Tandberg brings more than a half century of experience to its educational training products. Only Tandberg could create the IS-10, the language laboratory that sets the standard by which others are judged.

1) Tandberg has installed thousands of language laboratories in more than 80 countries. Since 1933, Tandberg's designers and engineers have consulted with educators to develop laboratories that meet their specifications.
2) According to one of Europe's most respected design councils' view, it was aesthetically pleasing while providing first-rate visual and audio communications. They stressed that the „user friendly" quality of the IS-10 played a significant role in their decision. All in all, Tandberg was proud to receive one of Europe's most prestigious awards.
3) Those features praised by the Design Council were created to make a teacher's life easier. The hardware of the IS-10 was designed to be functional and simple. We want teachers to be teachers – not technicians.
4) The design of the IS-10 encourages teacher-student interaction. The master control console contains a display panel which gives the teacher complete information about all the activities at each student position. It also allows the teacher to have remote control over all student functions.
5) The L.C.D. is a mini-control panel for a student. At a glance, a student can see where counter on the student recorder shows „Real Time".
6) Like bookmarks in a book, these electronic reminders allow students to locate easily a particular place in the lesson. Students may set bookmarks from either the playback, student record or program transfer modes and return to them whenever they like.
7) The soundless operation of Tandberg's four-motor cassette deck is part of what sets it apart. Fast-forwarding and rewinding a C60 cassette in less than 40 seconds. The microprocessor controls are some of the reasons why Tandberg has a worldwide reputation for durability.
8) The IS-10 is the foundation for a total media center. As your needs expand, the IS-10 can expand with you. Other sound sources, tape with slide projectors, video monitors, videodisc players, and computers can be added.
9) Though it may sound immodest, Tandberg has been known as the pioneer with more firsts than anyone else. With a combination of state-of-the-art components, engineering and design, Tandberg has set the standard for excellence around the world.
10) The design of the IS-10 has proved to be extremely significant in the history of new and innovative products from Tandberg. The IS-10 offers, with simplicity of operation, first-rate audio and visual communication. It is a full function learning system that will give years of practical service to a variety of users.

Broshure of Tandberg Educational

1. feladat:

Olvassa el a „Tandberg educational IS-10 language laboratory" c. szöveget, és a példa szerint írja be az alábbi táblázatba, hogy a szöveg melyik bekezdéséhez melyik alcím tartozik. Egy alcím fölösleges.

Alcímek:

A. Tandberg innovation and fifty years of worldwide experience created the IS-10
B. The IS-10 wins the coveted design council award
C. No one has more installations than Tandberg
D. Teachers have constant communication with students
E. World-wide reputation
F. Tandberg has confidence in the IS-10 cassette deck
G. The IS-10 grows on you

H. The student liquid crystal display (L.C.D.) helps students learn
I. It's worth repeating: Tandberg has more installations
J. The IS-10 has electronic bookmarks
K. Tandberg simplifies a teacher's life
L. IS-10 laboratory

0	1	2	3	4	5	6	7	8	9	10
A										

2. feladat:

Olvassa el újból a feladatot, és döntse el, hogy az állítások igazak vagy hamisak, a minta szerint.

	ÁLLÍTÁS	**Igaz**	**Hamis**
0.	*The advanced technology and the organizational makeup made the company win the industrial design award.*	*X*	
11.	IS-10 is not only well designed but user-friendly, as well.		
12.	In the laboratory you can only listen to the cassettes.		
13.	The operation of the cassette deck is rather loud.		
14.	It is possible to install other sound sources.		
15.	Tandberg company was founded in 1933.		

3. TELINDUS aims to supply A to Z of communication needs

Although network integration company **Telindus Hungary Kft**. is relatively young in Hungary, the primary goal is to see it become the number one player on the local market, according to Country Manager Miklós Bata.
The Hungarian unit is a subsidiary of the Belgium-based global company, **Telindus Group NV.** The group started its activities in 1969 when the engineering group of **Koning and Hartman** changed its name to Telindus.
"Telindus is focusing on vertically developing markets including industry, banking and finance, the retail sector and logistics," said Mr. Bata. He also added that, while many technology companies were compelled to pull the plug in 2000, Telindus was able to stay on the market because the company was well situated and never took out loans to fund any of its investments.
2001 finacial year was the worse one experienced by the group so far. "But to give a picture of how difficult 2001 was, the group's operational profit was €500,000 as compared to €18.3 million in 2000," Mr. Bata said.

Mr. Bata was born in Szabadka, Yugoslavia, of Hungarian parents, but at the age of six he imigrated to Sweden with his mother. After graduating from the University of Economics in Lund, Sweden, he joined **Axis Communications** in sales and marketing. Part of his work was dealing with Eastern Europe and in 1999 he was invited by a company called **HRP Hungary Kft**. to work in Budapest. After about a year he was asked to join the Budapest division of the

privately owned Swiss information technology group **Gutenberg Communications Systems** (GCS) as a sales director. The Telindus Group acquired GCS in the summer of 2000 and transforming it into a subsidiary. "Telindus bought GSC because it wanted to get access to the Swiss market, but got Hungary as well," said Mr. Bata. "When the former Country Manager left I was asked to take his place."

"We generally say Telindus Hungary stands on three pillars focusing on key areas, the first being network security where the company provides various solutions including firewalls and virtual private networks (VPN). VPN means that on a direct leased line the clients of Telindus can access a secure 'tunnel' on the crowded Internet via a secure connection to guarantee them a safe flow of information," Mr. Bata explained.

"The second pillar is networked video surveillance. This covers everything from the video monitoring of automatic teller machines to monitoring industrial premises, city roads, highways, etc. The idea here is to transfer images in packets through local area networks (LAN) and further through a wide area of network if required," he continued.

The concept of the company is to replace old analogue Closed Circuit TV systems, and to open the doors to a new, networked world. At the moment people could only imagine what the video traffic surveillance system monitoring the highways of Hungary will be like, however, Mr. Bata believes that shortly this becomes a reality, and people will be able to turn on PCs or desk-tops to call up real time traffic news to avoid hold-ups and find the safest, shortest routes.

Another innovation that Mr. Bata foresees is people being able to access the Internet and send emails from their own laptop computers at airports and railway and bus stations by simply using their credit cards to log on to the global network.

The third focal area is what experts call LAN/WAN integration, where Telindus clients own local area networks (LAN) and are logged on to wide area networks (WAN). "Our mission is to become a one-stop shop for our clients' needs where they can obtain all solutions and services from A to Z, Mr. Bata said.

The Budapest Sun, November, 2002.

1. feladat:

Olvassa el a Telindus Kft-ről szóló szöveget, és egészítse ki a táblázatot maximum 10 szóval, a példa (0) szerint.

Work experience of Mr. Bata	*0. after graduating he joined Axis Communications*
	1.
	2.
	3.
The strategy of Telindus company is based on three main areas:	4.
	5.
	6.
Two important innovations help the services providing by the company:	7.
	8.

2. feladat:

Olvassa el újból a szöveget, és döntse el, hogy az állítások igazak vagy hamisak a megadott példa (0) alapján.

ÁLLÍTÁS	Igaz	Hamis
0. Telindus Hungary is a subsidiary of a Belgium based group.	X	
9. The company could stay alive in the 1990s because it invested a lot in finance.		
10. Telindus is concentrating not only on the communications market.		

4. Mobile market shifts its focus

Phone manufacturers are increasingly turning their attention to the developing world.

As the developed world reaches mobile saturation levels, easy-to-use, cheap handsets will be crucial for vendors, according to a new report from research firm Informa Telecoms and Media. Services specifically tailored for this market will be essential. It could see an increase in cheaper, data-based voice services and a rise in voice-based messaging services. The latter will be particularly popular in areas of low literacy, the report finds.

Walkie-talkie

Using data networks for voice services could have the knock-on effect of driving voice-over IP for mobiles although operators are expected to oppose such a move, the report found. "The technology is there for operators to do it but as 80% of their revenues still come from voice, operators are unlikely to want voice-over IP enabled devices for a good while yet," said report author David McQueen.

Voice-over IP would be an attractive option for consumers in both the developing and developed world as it means cheaper calls. Already so-called push-to-talk services - a cross between walkie-talkie technology and an instant messaging network - are taking off in areas such as Latin America, the Indian sub-continent and South East Asia. Because the service uses data it is likely to be cheaper than traditional voice services and Mr McQueen anticipates it could become a ubiquitous feature of phones sold in developing regions.

Motorola has been one of the key developers of push-to-talk services although it is unlikely to have envisaged it would become so popular in the developing world, said Mr McQueen. "It started off being used in North America on places such as building sites but it has not really taken off in Europe," he said.

Free TV?

The story for the developed world is one of a slow-down in sales over the next five years, according to the report. Despite this, vendors will still shift 899m handsets in 2010, with 2 billion subscribers expected sometime in 2006.

The main six vendors - Nokia, Motorola, Samsung, Siemens, LG Electronics and Sony Ericsson - will remain the key players but there will be consolidation among other suppliers. Increasingly operators will offer own-brand handsets, which could mean cheaper phones for consumers although it will also mean they are locked in to the services provided by their operator. Mobile vendors will continue with their so-called 'Swiss Army knife' approach,

loading phones with extras such as cameras, music players, Bluetooth and, increasingly, mobile TV. Many operators are trialling mobile TV at the moment but there are still many issues to be ironed out, such as how deals will be struck between handset suppliers, operators, broadcasters and regulators. Bandwidth - which in the UK will come when the analogue signal is switched off - needs to be freed up by regulators and manufacturers have to provide phones that can cope with TV viewing alongside the myriad other functions already eating up battery life.

A bigger question is whether there is demand for TV on mobile phones and, if so, whether people will be prepared to pay for it. "If you have a device with a digital TV receiver and you have paid your license fee why can't you receive television for free?" asked Mr McQueen. Music will continue to be an attractive feature for phones and the report predicts that over half of handsets will have a music player incorporated into it by 2010. But here too there are issues surrounding how revenues will be split with recording companies and the price point for downloads. Both need to be addressed if mobile music is to take off among consumers as a real alternative to using dedicated music players. Camera phones will also continue to become widespread with 77% of all handsets sold with built-in cameras by 2010, the report found.

BBC NEWS Published: 2005/09/28

Feladat: Egészítse ki a táblázatot a szöveg alapján

Phone manufactures target ….	1.
In areas of low literacy … will be popular.	2.
The world's single largest market is ….	3.
Push-to-talk services are becoming popular in …, … and ….	4.
	5.
	6.
Push-to-talk services used to be popular on ….	7.
In the next few years, mobile phone sales in the developed regions will be … compared to the developing world.	8.
Nokia is one of the … of Motorola.	9.
The 'Swiss Army Knife' approach means loading phones with ….	10.
The new trends are to put …, … and … into phones.	11.
	12.
	13.
The two questions raised concerning music features in phones are … and …	14.
	15.

5. Transport and Communications in Britain

0. Major improvements in the movement of passengers and freight have resulted from the construction of a network of motorways, the extension of fast inter-city rail services (such as those operated by high speed trains), the modernisation of many ports, the increased use of containers and other modern methods in shipping, the use by airlines of larger or speedier aircrafts.

1. Motor vehicle traffic in Great Britain in 1992 amounted to over 300,000 million vehicle-kilometres, of which cars and taxis accounted for nearly 81 percent. Improvements are continually being made in the network of trunk roads, which form a basic network linking major centres of population, industrial areas and ports. A number of motorways have been built, while other improvements, such as the construction of by-passes, have helped to make travelling easier and faster, particularly over long distances and between cities.

2. The main aims of the Government's programme to improve roads are to meet the needs of industry and to keep heavy lorry traffic away from towns and villages. In England the main priorities are the M25 London orbital route and routes to serve industry and the major ports. In Wales the priorities are to reconstruct the coast road in north Wales and improve roads which are important for industrial redevelopment. Although most of the motorway and dual carriageway network in central Scotland has been completed, an extension is planned to the southern end of the M74. Other priorities are the improvement of strategic routes such as those to the north and north-east (which are important for North Sea oil-related activities), some of the west-coast routes, and the construction of more by-passes. In Northern Ireland the emphasis is on building new links to the motorway network, constructing more by-passes, and improving roads in the Belfast area and other urban areas.

3. Great Britain's accident record is considerably better than that of most other countries even though it has one of the highest densities of road traffic in the world. A comprehensive legislation is summarised in the Highway Code, which sets out the standard of conduct for road users.
   Comprehensive regulations govern the design of vehicles, their use on the roads, and the maintenance and testing of their mechanical condition. Private cars and light vans which are three or more years old must be tested annually at private garages authorised as test stations.

4. Traffic management schemes are being operated in many city centres to minimise congestion and its environmental effects, and to improve road safety. In most town centres parking is restricted and waiting limits apply. Major city centres often have controlled parking zones, where payment is required for on-street parking.
   Urban traffic control systems, with traffic signals controlled by a central computer, are in operation in 33 cities in Britain. Systems developed by the Department of Transport and British firms have achieved international fame and are the most commonly used in the world.

5. The environmental problems caused by lorries have become a matter of public concern. The Government has introduced a number of measures to bring economic benefits and increased protection to the environment and the public.

More by-passes are being built to keep lorries away from residential areas. In 1992 the maximum noise limit for the heaviest lorries was reduced. To encourage the use of railways and inland waterways for the carriage of freight, grants of up to 60 percent are available.

6. Local bus services in Britain are provided mainly by publicly owned coach services, and privately owned taxis.
   The largest single public sector bus and coach operator in Britain is the National Bus Company, which operates in England and Wales through more than 40 locally based subsidiaries and has a network of long-distance coach services; it has fleet of some 14,000 vehicles. The Scottish Transport Group operates the main bus services in Scotland outside the major cities and also runs ferries to the islands off the west coast of Scotland.
   Double-deck buses are the main type of vehicle used for urban road passenger transport in Britain and there are some 25,200 in operation. In addition, there are 44,700 single-deck buses and coaches, and some 82 trams (at Blackpool and Llandudno which have Britain's only remaining tramway systems).

7. Railways were pioneered in Britain, and the Stockton and Darlington Railway, opened in 1825, was the first passenger public railway in the world to be worked by steam power. In 1962 the British Railways Board was set up to manage railway affairs and subsidiary activities.
   The passenger network comprises a fast inter-city network, linking mainly the main centres of Great Britain and provides commuter services in and around London and south-east England. The introduction of faster trains, together with track and signalling improvements, has brought significant reductions in journey time on many routes. Inter-city rail services are among the best in the world in speed, frequency and comfort.
   British Rail has developed ways of reducing costs by replacing existing diesel multiple-unit trains by light-weight vehicles, which are cheaper to build and maintain.

8. The inland waterways of Great Britain are popular for recreation, make a valuable contribution to the environment and play an important part in land drainage and water supply. They are also used to a limited extent for carrying freight. Some 60 percent of internal tonne-kilometres were carried out on the River Thames and associated waterways. Of the 2,000 miles (3,219 kilometres) of canal and river navigations controlled by the publicly owned British Waterways Board, some 340 miles (547 kilometres) are maintained as commercial waterways for use by freight-carrying vessels.

9. There are over 300 ports in Great Britain, but the large majority are small harbours of only local significance and many do not handle cargo regularly.
   In 1992 traffic through the ports of Great Britain amounted to 420 million tonnes comprising 124 million tonnes of imports, 130 million tonnes of exports and 166 million tonnes of domestic traffic. About 65 percent of the traffic was in fuels, mainly petroleum and petroleum products.
   While non-fuel traffic has been growing only slowly, container and roll-on traffic has doubled and now accounts for about one-third of non-fuel foreign and coastal traffic.

A Central Office of Information reference pamphlet, No. 126.

1. feladat:

Olvassa el a ’Transport and Communications in Britain’ című szöveget, és párosítsa össze az alcímeket a bekezdésekkel, amelyek tartalmuk szerint legjobban fedik az leírtakat, a megadott minta (0) alapján. Egy fölösleges alcím van.

0	1	2	3	4	5	6	7	8	9
A									

A. Development of transport and communications in Britain
B. Railway services
C. Roads
D. Road safety
E. Freight Transport
F. Traffic on rivers and channels
G. Port traffic
H. Priorities in roads policy
I. Traffic in towns
J. Passenger services
K. Railways

2. feladat:

Olvassa el újra a szöveget, és döntse el, hogy a megadott állítások igazak vagy hamisak. Itt is a minta (0) szerint járjon el.

Állítások	**Igaz**	**Hamis**
0. The government wants to improve roads to serve industry in most areas of Great Britain	*X*	
10. The motorways accounted for 300,000 million kms.		
11. All kinds of vehicles must be tested annually according to the regulations.		
12. The government encourages using railways and waterways for freight transport by giving financial help.		
13. The inter-city trains connect big towns and provide services to commuters as well.		
14. The waterways and channels are used both for freight carrying and holiday activities.		
15. Container and roll-on traffic are the fastest growing field of transport through the ports of Britain.		

6. Briggs & Stratton Engine Lawn Mower (Model series 90000, 100000)

Operating and Maintenance Instructions
Safety precautions

Before operating the engine

- read the entire Operating and maintenance Instructions and the instructions for the equipment this engine powers.
- failure to follow instructions could result in serious injury or death.

The Operating and Maintenance Instructions contain safety information to:

- make you aware of hazards associated with engines,
- inform you of the risk of injury associated with those hazards, and
- tell you how to avoid or reduce the risk of injury.

Warning 0.

……..

When adding fuel

- Turn the engine off and let the engine cool at least 2 minutes before removing gas cap.
- Fill fuel tank outdoors or in well-ventilated area.
- Do not overfill fuel tank. Fill tank to approximately 1-1/2 inches below top of neck to allow for fuel expansion.
- Keep gasoline away from sparks, open flames, heats and other ignition sources.
- Check fuel lines, tank, cap and fittings frequently for cracks or leaks. Replace if necessary.

When starting the engine

- Make sure spark plug, muffler, fuel cap, and air cleaner are in place.
- Do not crank engine with spark plug removed.
- If fuel spills, wait until it evaporates before starting the engine.

When storing gasoline and the equipment with fuel in the tank store away from furnaces, stoves, water heaters or other appliances that have ignition source because they can ignite gasoline vapours.

Warning 1.

……

- If there is natural or LP gas leakage in the area, do not start the engine.
- Do not use pressurized starting fluids because vapours are flammable.

Warning 2.

……

- Start and run the engine outdoors.
- Do not start or run the engine in closed area, even if door or windows are open.

Warning 3.

……...

- When starting the engine pull the cord slowly until resistance is felt, then pull rapidly.
- Remove all external equipment/engine loads before starting the engine.
- Direct coupled equipment components such as, but not limited to, blades, impellors, pulleys etc. must be securely attached.

Warning 4.

……

- Operate the equipment with guards in place.
- Keep hands and feet away from rotating parts.
- Tie up long hair and remove jewels.

Warning 5.

……

Allow muffler, engine cylinder and funs to cool before touching.

- Remove accumulated combustibles from cylinder area.
- Install and maintain in working order a spark arrester before using equipment on forest/grass/bush-covered unimproved land.

Warning 6.

……..

Before performing adjustment of repairs:

- Disconnect spark plug wire and keep it away from spark plug.
- Disconnect battery at negative terminal (only engines with electric start).

When testing for spark:

- Use approved spark plug tester.
- Do not check for spark with spark plug removed.

Warning 7.

…….

Grass or leaves may clog the engine air cooling system. Internal fans and surfaces may require cleaning to prevent overheating and engine damage.

Warning 8.

…….

Schedule: first 5 hours: change oil;
every 5 hours or daily: check the oil level, clean finger guard and muffler
every 50 hours or seasonly: change oil, inspect sparks

1. feladat:

Párosítsa össze a kezelési útmutató figyelmeztetéseit (A-H) az 1-6 bekezdésben javasolt biztonsági módszerekkel a fűnyíró használata során, a példa (0) szerint. Vigyázat, eggyel több figyelmeztetés van!

A. Gasoline and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death.
B. Rapid retraction of starter cord will pull hand. Broken bones, fractures, bruises could result.
C. Engines give off carbon monoxide, a poisonous gas. Breathing it can cause fainting or death.
D. Rotating parts can contact or entangle hands, feet, hair or clothing. Traumatic amputation can result.
E. Unintentional sparking can result in fire or electric shock.
F. Running engines produce heat. Engine parts become extremely hot. Severe burns can occur on contact.
G. Starting engines creates sparking. Sparking can ignite nearby flammable gases.
H. The engine exhaust contains chemicals that can cause cancer, birth defects or other harm.
I. Keep the engine clean
J. Maintenance

0	1	2	3	4	5	6	7	8
A								

2. feladat:

Olvassa el újból a kezelési útmutatót, és válaszoljon a következő kérdésekre a példa (0) szerint.

Kérdések	**Válaszok**
0. How often do you have to change oil under normal conditions?	*First 5 hours/every 50 hours*
9. What happens if the spark plug is old and dirty?	
10. What should be done to prevent engine overheating and damage?	

7. A text message that finds lost railway trucks

Sitting in his office in Duisburg, in Germany's industrialised Ruhr valley, Wolfgang Kocks scans the messages that pop up from time to time on his computer screen. He clicks on one of the messages - which look like an e-mail - because it tells him one of his company's freight trains has been delayed. A further click brings up a map that shows exactly where the train is.

It is only recently that Mr Kocks, director of eCargo Service for Railion, the freight arm of Deutsche Bahn has had such information. The wagons on the train form part of an experiment using global satellite positioning technology to track freight consignments.

Before the system was introduced, Mr Kocks found out about delays to trains outside Germany only when foreign railway managers told him. To locate a wagon, Mr Kocks uses tracing technology developed by Transportdata, a Munich-based company majority-owned by communications technology group Kayser-Threde.

The system monitors whether the wagon is on schedule. It can also provide other information, such as whether it is loaded or unloaded, whether the door has been opened and whether it has been subjected to the kind of shock that might damage its cargo.

Transportdata's technology is used by Trenitalia and SNCF, the Italian and French national train operators, and OBB, Austrian state railways. The technology is especially useful in Europe, where 50 per cent of rail freight traffic crosses national borders.

Units fitted to a freight wagon must have their own power supply. The system should use as little power as possible and avoid communicating.

Transportdata decided to shift responsibility for monitoring from the central computer systems to units on the wagons. At the start of a journey, an SMS message from a central computer sends the on-board unit a timetable saying where it should be and when.

The unit comes to life periodically, to see whether it is meeting the timetable, or following a prompt by unexpected information from other monitors, such as a door-opening sensor.
If the position received from the satellite conforms with the timetable, and the journey goes according to plan, it simply sends a message of confirmation. With its low power use, the on-board unit needs only one set of batteries every six years.

The whole unit – which resembles a tin can topped by a rubber hemisphere – is welded on to wagons. Door sensors can be adapted to keep doors locked until the train is in the right place for unloading. Trenitalia has ordered such a system to prevent theft of cigarettes.

Back in Duisburg, Mr Kocks is almost as enthusiastic about the technology as are its developers. His enthusiasm may even be shared by European Union transport officials, who think the technology might encourage new freight customers.

Financial Times, January 2004

Feladat

Válaszoljon a szöveg alapján a kérdésekre a minta (0) szerint

Kérdések	Válaszok
How will railway trains for transporting be made popular again?	*0. By using satellite positioning*
What technology does Mr Kocks use to locate his wagons?	1.
By whom was this technology developed?	2.
What messages do the emails contain?	3.
How did he get information about the trains before using this system?	4.
What can the system control?	5.
	6.
	7.
	8.
How many parts does the system have?	9.
	10.
Why is this technology useful in Europe?	11.
How does the system work? (steps)	12.
	13.
	14.
	15.
What kind of power supply does the board unit use?	16.
What is the use of door sensors?	17.
What do the EU transport officials hope?	18.

8. German engineering industry on brink of strikes

Germany's engineering industry appeared on the brink of industrial unrest yesterday, as wage talks for the sector's 3.5m workers ended in stalemate. Workers at DaimlerChrysler near Stuttgart plan to hold short warning strikes early tomorrow, with similar protests to follow in northern Germany, the IG Metall trade union said.

Regional IG Metall officials in south-west Germany rejected a modest two-stage pay offer by Gesamtmetall, the engineering industry employers' association. Engineering industry wage negotiations often set the pattern for other sectors in Germany and elsewhere.

Gesamtmetall has offered a 1.2 per cent pay rise for a 15-month period starting on January 1 this year, and a further 1.2 per cent over the following 12 months.
In return, it has demanded a separate agreement allowing for workplace deals between companies and employee representatives on working hours, including permission for a ''working time corridor'' of 35-40 hours a week.

IG Metall is demanding a 4 per cent rise over 12 months. The union hopes the warning strikes – short stoppages that cause only limited production disruption – will increase pressure on Gesamtmetall.

Economists said a deal of around 2 per cent was likely, and would not undermine Germany's economic recovery. Employer representatives said the wage offer could be increased if IG Metall accepted the need for an opt-out clause industry-wide allowing for each workplace dealing on working time.
IG Metall faces the challenge in the talks of re-asserting its leadership of the union movement following an internal crisis over last summer's failed strike in eastern Germany. Doubts have emerged over the traditional role of the engineering industry negotiations.

Financial Times January 2004

1. feladat

Egészítse ki a táblázatot a szöveg alapján a minta (0) szerint

	Kiegészítések
The two associations of engineering industry workers in Germany	*0. IG Metall*
	1.
Number of engineering industry workers	2.
Wage negotiations carried out by engineering industry workers are shown as	3.
'Working-time' corridor demanded by Gesamtmetall means	4.
The union hopes that short-warning strikes will not	5.
If each work place can start talks on working time pay rise is possible, said	6.
Last summer the strike organised by IG Metall	7.
IG Metall risks its leading position of	8.

2. feladat

Jelölje be a különbségeket a fizetésemelésekkel kapcsolatban a következő táblázatba.

	IG Metall	**Gesamtmetall**	**Economists**
	One stage		One stage
%	9.	1,2 %	11.
years	10.	12.	12 months

9. The future fuel needs

Accurate future predictions are hard to make but one thing is for sure: vehicle transport will have to end its reliance on fossil fuels during this century.
Concern over Co2 emissions and the depletion of oil resources mean that future vehicles will rely on very different energy sources. Exactly how and when this will happen is a subject of some debate, but development of alternatives is underway.

The European Commission has recently given a kick-start to the technologies in the development of advanced hydrogen-powered vehicles. The Commission is keen to replace 20% of traditional fuels with alternatives by 2020, and has identified hydrogen as a particularly promising alternative. Hydrogen-fuelled motors do not produce carbon emissions or greenhouse gases, emitting only water vapour from the tailpipe.

Other solutions are coming, too. Engineers are in the process of developing larger and heavier hybrid vehicles, now that the concept is proving increasingly popular among some car buyers. Various projects are looking at ways to introduce hybrid technology to truck fleets, while prototype construction machines with hybrid drives have also been developed.

In reality though, hybrid vehicles may be nothing more than a stop-gap technology. Hybrids are all good, and Toyota's Prius model is certainly a fine example of engineering. But the real world fuel consumption of the Prius is not as low as it has been presumed prior to its launch. One problem for a hybrid vehicle is the weight of the batteries, while there are also safety and environmental concerns regarding the materials used in the batteries.

By comparison, a modern diesel car featuring a high pressure injection, common rail fuel system, cross-flow head and other in-cylinder technology can deliver far better fuel technology than a hybrid, while producing relatively low levels of emissions that can be reduced still further by fitting filtering systems. Diesel vehicles are no longer the smoky, noisy and lethargic vehicles. Audi won the famous Le Mans sports car race in France with a diesel this year, while JCB's Dieselmax recently topped 564 km/h.

Diesel fuel does have to be sourced from oil and plenty of vehicles have been converted to run on vegetable-based fuels, though it is questionable whether the agricultural sector could cope with meeting the demands of the fuel sector (in addition to providing food).
Though I am no gambler, my money would be placed on either fuel cells or hydrogen power as being the most likely future vehicle options. However, there are issues to be resolved with all of these technologies and none offers a cheap alternative. While hydrogen is plentiful, the techniques used at present to source it from water are energy intensive.
However, fuel sells have shortcomings that their developers have probably not considered. The thought of changing the motorcycle on which I commute to work for a machine that makes more noise than a washing machine is somewhat alarming.

October 2006 World Highways

1. feladat

Egészítse ki a mondatokat értelemszerűen, néhány szóval, a megadott minta (0) alapján.

		Kiegészítés
0.	*Fossil fuels will come to the end*	*during this century*
1.-2.	Future vehicles will use different energy sources the reasons of which are	
3.	Hydrogen is regarded by the Commission	
4.	When using hydrogen-fuelled engines there is no emission of	
5.	Car buyers like the idea of vehicles driven by	
6.	A good example of hybrid vehicle is	
7.- 8.	Disadvantages of hybrid vehicles are	
9.	The present technology to gain hydrogen is	
10.	Diesel fuel can be sourced from	
11.	A modern diesel car is more economical than a	

2. feladat

Döntse el, hogy a következő állítások igazak vagy hamisak, a példa (0) szerint.

Állítások	**Igaz**	**Hamis**
0. Development of alternatine fuels is on the way.	X	
12. The low level emissions of in-cylinder technology can be improved further by filtering systems.		
13. The agriculture will be able to meet the demands by producing enough alternative energy.		
14. Alternative energy production is cheap		
15. Some vehicles have already used vegetable-based fuels.		

10.The British way to give Berlin a lift

The rebuilt of German capital was in danger of turning out dull. When it came to building in the once and future German capital, the British felt almost at home: they had to struggle with a very inflexible system that was deeply suspicious of innovation.

In the old centre of West Berlin Nicholas Grimshaw has finally completed his extraordinary steel-hooped Berlin stock exchange. Though it has ended up a little tamer than he wanted, it is still deeply unorthodox by Berlin standards. At the other end of Berlin's Central Park Sir Norman Foster is completing work on the celebrated Reichstag. It has a new glass dome containing double-spiral ramps and a great mirrored light-scoop to the parliamentary chamber beneath. Again, this is less than the much more extreme design Foster first entered for the competition.

Nearby, other British architects are working away. Lord Rogers is finishing off three highly sculptural blocks – two of offices, one of apartments right on the line of the former wastelands of the Wall. A few hundred yards away, Will Alsop's Anglo-German firm Alsop and Stromer has used collage techniques for the facades of its 'Stresemannstrasse' office block. And over near the former border crossing of Checkpoint Charlie, a younger Anglo-German couple, the architects Matthias Sauerbruch and Louisa Hutton, are building one of Berlin's few new towers for the city's state housing agency.

When the city came to be replanned in the aftermath of German reunification, many free-thinking designs were declared out of order. It is to the credit of the Italian architect Renzo Piano, who eventually became master planner of the largest chunk of the Postdamer Platz district. His achievement is more to do with the new streetscape then it is to do with the qualities of individual buildings. Piano's shopping mall, for instance, is scarcely mould-breaking – you could be anywhere in the world.

Grimshaw and Foster, however, have been allowed into the thick of things, each making highly individual and very visible contributions to what is fast becoming the centre of Europe. Grimshaw's all-new building is known locally as "The Armadillo" because it is made of a sequence of giant steel arches, which respond nicely to the irregular form of the site. Berlin is rapidly coming to regard the Armadillo with affection; it has become a party venue. The dramatic spaces inside include a vast foyer running the entire length of the building, and the two spectacular atriums with wall-climbing lifts like sci-fi sarcophaguses. The place is at its best when it is full of people having a good time. Before long, it will surely be used for fashion shows and film sets.

Foster's Reichstag is a more sober affair, but no less dramatic. He has revealed as much of the old building as possible, and then lightly perched his own additions within it. The circular parliamentary chamber is visible from outside through the glass walls. Public galleries are put right into the centre of the space, so you can sit and observe government at work.
There is no doubt, that Berlin is an extraordinary place – perhaps the most exciting city in Europe, precisely because of its transformation.

The Sunday Times, April, 1998

1. feladat:

Olvassa el a Berlin építészetével foglalkozó cikket, és töltse ki az épületekre és az építészekre vonatkozó táblázatot, a megadott minta (0) szerint.

	Lord Rogers	**Mr. Grimshaw**	**Sir Foster**	**Alsop and Stromer**	**Sauerbruch and Hutton**	**Renzo Piano**
0. Appartment blocks	*X*					
1. Stock exchange						
2. Parliament building						
3. Shopping centre						
4. Office blocks						
5. Housing estate						

2. feladat:

Olvassa el újból a cikket, és válaszoljon a kérdésekre röviden a példa (0) szerint.

Kérdések	**Válaszok**
0. What was the danger concerning rebuilding Berlin after the German reunification?	*becoming a dull city*
6. How did the British architects want to rebuild Berlin?	
7. In what ways could two of the British architects implement their own extreme plans?	
8. What materials were mainly used for building the stock exchange and the parliament?	
9. What kind of picture did R. Piano give to Postdamer Platz district?	
10. What kinds of events are hosted in ’Armadillo’?	
11. How it is possible to see the parliamentary chambers from outside?	
12. How many free-thinking designers are mentioned in the article?	
13. Why is Berlin an interesting city?	

11.The story of Ice-hotel

Jukkasjarvi lies in Sweden, 200 km north of the Arctic Circle, and it is situated on the Torne River. Jukkas AB, the company that runs the Ice-hotel, has been involved with tourism since the mid 1970s and offers numerous activities, such as river rafting, fishing, wilderness survival, reindeer and dog sledding. Historically, few tourists have visited Jukkasjarvi

throughout its long, dark, cold and snowy winters. However, in 1991, Jukkas AB decided to see the winter as an asset.
It all started with an "Art-ice" exhibition igloo, which was built directly on the river. Hundreds of visitors marvelled at the 60 sq. meter art gallery; a few visitors even spent the night. Hence comes the birth of the Ice-hotel.

Now, in its tenth year, the Ice-hotel continues a prosperous and prestigious climb as the world's largest, and perhaps only, hotel made completely of ice and snow. From its modest one room start, nearly a decade ago, the Ice-hotel now boasts 4,000 sq. meters, about 10,000 tons of ice, 40,000 cubic meters of snow, 6,500 overnight guests and 40,000 visitors during the season.
This 37-room winter wonderland includes a hotel reception, a main hall, an ice-art exhibition, the Absolute Ice-bar, Ice-hotel Cinema, a honeymoon suite, and, of course, hotel rooms. In the evenings, guests gather around the Absolute Ice-bar and take drinks "in the rocks", from glasses cut from river ice. Adjacent to the entrance, the Ice-church hosts masses, weddings and baptisms.

Now Frontec AB and Symbol Technologies AB make the Ice-hotel the world's first wireless hotel. By connecting all buildings in the area to the Spectrum24, a wireless network from Symbol technologies, the guests will be able to check in with Symbol's wireless PDAs. In the world famous Absolute Ice-bar all given orders will be stored in PDAs equipped with readers for bar-codes and credit cards. The guests will also be able to send e-mails to friends over the whole world. It is possible to make a phone-call from Symbol's IP-telephone in front of a wireless web-cam. Symbol Technologies is delivering the hardware and Frontec is developing the software.

In early October, about a dozen resident artists and builders get busy before the arrival of the first guests in mid December. Snow cannons and front loaders help to mould the snow over vaulted steel forms, some forms as large as 5 and half meters high and 6 meters wide. After 2 days the vaulted sections are ready for use in a new location. Then, ice columns are brought in to give extra support to the free-standing snow vaults. In late November, the builders remove ice from the Torne River, aided by tractors and special ice saws. Through December's continual darkness, as the main structure nears completion, refinement of the interior begins. The interior design continues into late January.

The constant minus 7 degrees indoor working conditions are relatively comfortably compared to the outside temperature, sometimes below 40 degrees Celsius. The sculptors saw and chisel the ice blocks to create architectural details, doors, windows, columns, desks, beds, chairs, lamps, etc. Every year national and international guest artists are invited to design the interior of certain rooms. The diverse styles of the numerous artists in combination with the characteristics of the ice result in a museum like atmosphere. However, unfortunately, in late April, the sun's rays begin to melt the recently completed masterpiece.

Even though the last guests check out in late April, work continues into June when the Ice-hotel eventually becomes a water-hotel. Nature's temporal gift gives the opportunity to experiment with form, space and technique every year, like snow flakes no two hotels resemble one another. The beauty, as well as the parts disappear and make way for the next winter

http:// cityguide.se/kiruna/icehotel,3.php

1. feladat

Olvassa el az ’Ice-hotel’ című cikket, és jegyzetelési technikával (néhány szóval) fejezze be a gondolatokat, a példa (0) szerint.

The largest ice-hotel of the world is situated in	*0. Sweden 200 km north of the Artic Circle*
The main characteristics of the hotel:	1. Basic area:
	2. Number of suites:
It is the first wireless hotel in the world because	3.
Using PDAs enables the Ice-hotel to	4.
	5.
By PDAs the guests can	6.
	7.
Machines and tools used for building the Ice-hotel are:	8.
Many people work on the Ice-hotel, such as	9.

2. feladat

Olvassa el újból a szöveget, és döntse el, hogy az állítások igazak vagy hamisak, a megadott minta (0) szerint.

Állítások	**Igaz**	**Hamis**
0. *The Ice-hotel is open from December to April.*	*X*	
10. Jukkas AB has been operating the hotel since the mid 1970s.		
11. The first Ice-hotel was the ’Art-ic’ exhibition igloo.		
12. The hotel has to be built every year.		
13. Owning to the diversity of styles the Ice-hotel seems to be a museum.		

12. New biochips target improving health

For a generation, the microchip has done a lot to make modern life easier. Now it may help make it longer. Ever since scientists succeeded in sequencing the human genome a couple of years ago, a race has been on to develop a generation of gene-based drugs. But analysing the data using conventional methods is both time-consuming and expensive. To find a way to speed up the process the researchers turned to the semiconductor industry. The chipmakers' answer to the problem is called the biochip.

This new generation of chips promises to cut the costs and time required to develop new drugs and eventually could help doctors diagnose diseases earlier and devise more effective treatment. The chips themselves can hold thousands of gene fragments from the patient, which scientists analyse to find deviations. Identifying irregularities can provide researchers with the key to determine how a specific disease affects genes and how the genes respond to certain treatments.
So far, Affymetrix Inc. of Santa Clara California, has dominated the biochip market with its 'GeneChip' product. But recently, some of Europe's leading semiconductor firms – STMicroelectronics NV and Infineon Technologies AG – have decided to develop their own products. These European firms are among the biggest ones in semiconductor industry. Until now, they have been more at home in the world of personal computers than medical research.

Infineon Technologies AG (Germany) has recently introduced a product called the 'Flow Thru Chip', which received the 2002 Silver Award in the Wall Street Journal Europe's Innovation Awards. What separates this chip from the predecessors is that it is made of silicon instead of glass. The advantage of silicon is that it makes experiments faster, provides more precise readings and is cheaper. Silicon biochips can be produced with little additional investment because they can use existing manufacturing techniques and capacity.

But Infineon's particular innovation is that its chip is porous. This means that a genetic sample can be evaluated in three dimensions because it flows through microscopic holes in the chip. Infineon scientist Volker Lehmann came up with the basic design for the chip in the mid-1980s. While experimenting with different technologies for silicon, he discovered a method of creating uniform-size holes in the material's surface. As it turned down, the technique could not be used in the manufacture of conventional memory chips as he had hoped.

But in the late 1990s Dr Lehmann found another use for his discovery- the biochip. Infineon put a team together and started developing the chip with Gene Logic Inc., Maryland (U.S.), a biotech company. Another further cooperation was also a need in the development of Infineon's next product – the electric chip.
One of the advantages of silicon is that it can be used as a base for electronic circuits. This allows for the development of a more sophisticated chip that it can take over some of the analytical work performed by the scientists. In other words, such a chip would be easier to use and reduce cost of gene analysis even further. The goal is to expand the use of the chips from the laboratory to doctors' offices and hospitals, where it could be used for diagnostic purposes.

The Wall Street Journal, Europe, November 2002

1. feladat

Olvassa el a ‘New biochips’ című szöveget, és válaszoljon röviden a következő kérdésekre a példa (0) alapján.

Kérdések	Válaszok
0. What was microchip used for before the new generation microchips?	*to make life easier*
1. What method/product did the researchers start to use to make the doctors’ analysing jobs more efficient and quicker?	
2. How does the new generation microchip help doctors?	
3. How do chips provide scientists to find deviations of a certain patient?	
4. What market did European semi-conductor firms dominate before entering the biotech market?	
5. What product got a prize by The Wall Street Journal in 2002?	
6. Why is Infineon’s chip different from the older ones?	
7. Why is silicon biochip cheaper?	
8. Why did Dr. Lehmann have to change his chip manufacturing method (holes in the surface)?	

2. feladat

Olvassa el újból a szöveget, és döntse el, hogy az állítások igazak vagy hamisak, a megadott példa (0) szerint.

Állítások	Igaz	Hamis
0. Flow Thru chip is a new invention because it’s three-dimensional.	X	
9. The manufacturing of the new chip was worked out together with a biotech company.		
10. Gene Logic Inc. produced the new chips.		
11. Silicon is the basic material of electronic chips.		

13.Iwood hopes for a bite of wood-panel market

Christoph Affentranger, chief executive of Swiss start-up company **Innovation Wood**, or **Iwood**, aims to take a big bite out of the $50 billion (€49.78 billion) wood-panel market with a substitute that is recyclable, high-tech – even edible.

“It was during a timber conference in the U.S. in the summer of 2000 when I started to think about the sawdust problem,” says Mr. Affentranger. He specialized in wood constructions during his 10-year career as an architect before opening his own business in December 2001.

Sawmills produce 200 million cubic tons of sawdust every year worldwide, and the bulk of it is used for heating purposes and offers little other use. Mr. Affentranger hopes his product will turn the valueless dust into cash.

The idea behind it is simple. Mix saw dust with yeast and water, bake it and out comes a new, recyclable material. The starch-bound wood-based panel smells like bread, and can be used for isolation purposes and furniture making.

"I knew that wood is made of 20% starch, so I mixed it with yeast and put it into the oven," he explains. The first trials during Christmas 2000 looked like charcoal buns, but he felt that he was onto something and patented the idea.
Three months later together with Switzerland's School of Engineering for Wood Industry they started a joint research project that refined the "buns" into panels. Mr. Affentranger has also won the support of a microbiologist specializing in yeast at the Swiss Federal Research Station.
The new material is 100% recyclable because no glue or other poisonous materials are used in the raw board. The only disadvantage is that it dissolves in water, which can be solved by wrapping the material in a veneer cover. But the researchers are also looking for enzymes that should prevent the dissolving process.

Backed by a strong research team Mr. Affentranger went on to the lookout for investors. In late 2001 he found Mr. Hofstetter, an entrepreneur and investor, and together they founded Iwood in November 2001. Mr. Hofstetter, who has been in the business since 1986 and had good ties to the banking industry, was still smarting from an investment in an Internet venture. "I was really convinced about the idea because wood-panel really offers a solution to the sawdust waste problem," he said. He also added that the dog of one of his friends liked the smell of the material so much that he ate three cube-size pieces.

Now the company needs international investors to push the start-up to the next stage. Up to now, Iwood concentrated on research and has produced no commercial panels, despite growing demand of home builders, who are interested in the product because of its ecological quality. The owners are looking for companies in the machinery business or furniture makers to provide capital for building industrial plants.

Talks with potential investors are currently being prepared, and the company is sticking to its business plan. But what if the industrialization of the panels should fail? "What can we think of is using the material in niche markets such as in the sound-suppressor business, where price sensitivity isn't that high," Mr. Hofstetter says.
So, despite the product's popularity with dogs, it looks like Iwood is unlikely to turn into a pet-food producer.

The Wall Street Journal Europe, November 2002

1. feladat

Olvassa el a “Wood-panel market” című szöveget, és töltse ki a következő folyamatábrát a megadott minta (0) szerint. Csak a számozott oszlopokba kell írni.

The story (production, research) of wood-panel until forming the company	*0. Mr. Affentranger’s idea at a timber conference in 2000.*
⇓	1.
⇓	2.
⇓	3.
⇓	4.
⇓	5.

2. feladat

Olvassa el újból a szöveget, és döntse el, hogy az állítások igazak vagy hamisak, a példa (0) szerint.

Állítások	**Igaz**	**Hamis**
0. The process of wood-panel production has been patented.	X	
6. Wood-panel production solves waste problems of wood industry.		
7. The panels are recyclable and environmentally friendly products.		
8. Mr. Hofstetter stopped his Internet venture when he started backing Mr. Affentranger.		
9. The commercial production of the panels was started because of home builders’ demands.		
10. If the wood-panel business fails, the company will produce pet food.		

14.Technology aims to make gas turbines efficient

That's what Dr. Joerg Feist's life has been about for the past few years. Small steps from one "milestone" to the next, moving towards a technology that he hopes will revolutionize the electricity-generation business.
By "doping" (embedding small amounts of phosphors) the ceramic coating on gas turbines with ultraviolet light-sensitive material, the turbines will run more efficiently, costless to operate and maintain, and enables generators to reduce harmful carbon-dioxide emissions from their plants, Dr. Feist says.
"I found out that the same material is used to make TV screens phosphorescent and can be used for protective coatings in gas turbines and jet engines," he says, referring to a discovery he made while researching his Ph.D. at the University of London's Imperial College. "My first response was: someone must have tried this before," he says. "I doubted I had an original idea". But he did.

Now Dr. Feist and his colleagues are promoting this technology as a business venture. They hope their efforts will lead to their newly developed sensor coating being used in electricity generation, and eventually in aircraft engines.
In the past ten years, manufacturers of gas turbines have increased their operating temperatures in an effort to raise their efficiency levels. This has pushed the components to their design limits, increasing for more sophisticated monitoring.

The ceramic coating on gas turbine blades protects them from high temperature, which would melt untreated blades. Failure of the coating can be catastrophic and costly.
"As fuel costs become more important, the design of gas turbines has to change towards fuel efficiency," Dr. Feist says.
The advantages of the sensor coating, which can be applied to most types of turbines, include improving a power plant's reliability and availability by extending the life of gas turbines. That, in turn, maximizes the safety of turbines and reduces the risk of unscheduled plant outages.
An increase in temperature of 50 degrees Celsius can improve efficiency by about 1%. For a typical 500-megawatt unit, this could add up to $1 million (€997,000) in saving a year.

The ability to predict the lifetime of the turbine coating will reduce the amount of time when generators have to shut their units for maintenance. Reducing plant outage times by one day can save $50,000 for a 500-megawatt unit.
The main disadvantage of the technology is that it would be difficult to apply the existing components because it requires optical access to a turbine's hard-to-reach hot gas path.

Sensor coating is unique because it employs a UV beam to read the turbines coating, but it is not the only project on the drawing board. Both General Electric Co. and Siemens AG. are developing similar technologies. As for Dr. Fest, he is going in with both eyes open, despite the risks associated with starting a new business and competing with heavyweights like GE and Siemens.

The Wall Street Journal Europe, November 2002.

1. feladat

Olvassa el a "Gas turbines" című szöveget, és jegyzetelési technikával (néhány szóval) fejezze be a mondatokat, a példa (0) szerint.

Bevezető mondatrészek	folytatás
New technology for generating electricity helps to reduce	*0. harmful carbon-dioxide emissions*
Dr. Feist's revolutionary idea in electricity generation is	1.
Applying this new technology on turbines makes operating and maintenance	2.
While doing his Ph.D. research Dr. Feist found that	3.
Earlier gas turbines were manufactured on high temperature in order to	4.
The sensor coating applied to the turbines improves	5.
	6.
	7.
	8.

2. feladat

Olvassa el újra a szöveget, és döntse el, hogy az állítások igazak vagy hamisak, a megadott példa (0) szerint.

Állítások	Igaz	Hamis
0. Sensor coating is revolutionary because it is done by UV beams.	*X*	
9. This technology can be easily applied to the existing one.		
10. Besides Dr. Feist and his team other companies have also stepped onto the market.		

15. Daimler-Benz's NECAR II puts smarter technology to work for the environment

An innovative new car from a German company sprinkles droplets of water from its exhaust pipe instead of spewing noxious fumes. And the NECAR II from auto manufacturer Daimler-Benz, based in Stuttgart, proves that the road to a cleaner environment is paved with good inventions. Companies from carmakers to airlines are launching new, environmentally friendly projects based on fresh technology.

The parade of innovation will be on display early this year when CNBC, Financial Times Television and Alp Action once again run the CNBC-Alp Action Awards and television series. The competing documentaries display designs and practices to reduce pollution, improve energy conservation and preserve resources. CNBC will broadcast the series in February, March and mid-April on its program „European Money Wheel."

The series provides evidence that the cure for problems caused by technology is often smarter technology. But smarter does not mean more complicated. The experimental NECAR II runs on a basic reaction studied in Chemistry 101: the combination of hydrogen and oxygen to make water and electrical energy. The car carries hydrogen in roof-mounted tanks and draws oxygen from the air. The two elements merge in fuel cells similar to the electricity-generating units used for decades aboard spacecraft. Depending on the gas flow through the suitcase-size set of fuel cells under the rear seats, the reaction can produce up to 50 kilowatts of power.

The road to the marketplace still offers formidable challenges, like ensuring the safety and practicality of the highly combustible hydrogen. But the company is already at work on future prototypes. „We're making faster headway than expected toward our goal of 'sustainable mobility,'"says Helmut Werner, president and CEO of Mercedes-Benz, a subsidiary of Daimler-Benz. He estimates that a commercial version of the hydrogen car could debut in showrooms in 10 to 12 years.

Even sooner than that, clean-running battery-powered vehicles will hum along highways, with greater range and speed than engineers thought possible a few years ago. Opel is among the carmakers in the forefront of these developments. Three Opel trucks will go to work early this year for the Deutsche Post, the German postal service, in Bremen. The trucks look like other mail-bearing vehicles, but their power comes from innovative zinc-air batteries. The nonpolluting trucks boast a standard operating range before refueling of 350 kilometers at speeds of up to 120 kilometers per hour.

As car manufacturers make ingenious design changes to reduce emissions pollution, European roads themselves appear to be getting smarter. The Association des Constructeurs Européens d'Automobiles (ACEA) – a group of 14 motor-vehicle companies producing many of the cars, trucks and buses on European roads – cites studies suggesting that computers will increasingly play traffic cop to cut congestion and clear the air. New „transport telematics" systems promote public transportation when serious air pollution looms, according to a report from Terence Bendixson, author of several books on transport and urban development.

Newsweek/February, 1997

1. feladat

Olvasssa el a 'Daimler-Benz's NECAR II című szöveget, és döntse el, hogy a megadott állítások igazak vagy hamisak, a példa (0) szerint.

Állítások	**Igaz**	**Hamis**
0. Daimler-Benz's new technology is used for producing more convenient cars.		*X*
1. The more complicated the technology the more environmental friendly it is.		
2. NECAR II consumes the same type of fuel as spacecrafts.		
3. The new car got a TV award.		
4. The mass production of the car can be started in a decade.		
5. OPEL trucks can run 350 kms by their batteries.		
6. 'Transport telematics' system will help avoid serious air pollution.		

2.feladat

Olvassa el újból a szöveget, és válaszoljon a kérdésekre tömören, a lényeget tartalmazó szavakkal, a példa (0) szerint.

Kérdések	Válaszok
0. What are car making and airline companies convinced about concerning the improvement of our environment?	*using good inventions*
7. How are hydrogen and oxygen transformed into fuel?	
8. What is the major problem to be solved for putting the car on the market?	
9. What power source do OPEL trucks use?	
10. What other equipment will be used for reducing emissions?	

16.Internet-accessible mobile phones put a desktop in your pocket

The latest and greatest mobile phones are far more than handy devices for on-the-go conversations. The new generation of mobile phones are also Information Age tools for keeping track of e-mail and news on the Web and for storing, transferring and accessing data anywhere.
Accessing the Internet allows everything from mobile banking to brokerage and bill paying. Industries that rely on field reps can keep track of their personnel, while medical-care providers are finding that pocket PCs and WAP-enabled mobile phones can bring diagnostics to remote areas and facilitate the transfer of time-sensitive information from doctor to lab.

In fact, mobile phones have quickly come to seem indispensible to nearly everyone. Angelbeat, a New York-based research, strategy and software-development firm focuses on the mobile Internet. „Accessing the Internet from these devices, at any time, any place and anywhere, will soon be as commonplace as using the PC," predicts Angelbeat CEO Ron Gerber.
Some industry observers expect that half of the billion-plus handsets in use by 2005 will be capable of receiving information from the Internet – surpassing the number of Internet-connected personal computers. Already, Mercedes-Benz personnel on showroom floors throughout Germany have supplemented their PCs with Nokia Communicators, a hybrid mobile phone-computer that comes with a full keyboard.
„When customers come to look at a car, the salesperson can check the price, check to see if that particular model is in stock and calculate the monthly fee and lease options, all from the Communicator," says Ilkka Raiskinen, vice-president, Mobile Applications and Services, Nokia Mobile Phones.

Nokia is also taking steps to make this information easier to manage. In September, fusionOne, a developer of Internet synchronization technology, demonstrated how a host of wireless devices – including PCs, handheld devices, mobile phones – can be instantly synchronized. Paul Chapple, director of product marketing for Nokia Wireless Software Solutions explains: „They will store all of the records you keep – from calendars to e-mail to phone-book entries – in a secure environment, and make sure that when you need to access it, the data is up-to-date, no matter where it was stored."

One of the bottlenecks faced by mobile phone users is that until higher bandwidth connection speeds become commonplace, transferring large amounts of data can be time-consuming. One creative solution is a Xerox/Nokia collaboration called MobileDoc that enables mobile users to receive a representation of their PC hard drive on their wireless-phone screen. They can scroll through document titles and than forward different documents to a PC or a fax machine, or have them sent to a Xerox document center to be printed out automatically.

Mobile banking and online investing are rapidly making inroads in Europe, particularly in Scandinavia. Of Sweden's overall population of nine million, nearly five million own shares or mutual funds – and even more own mobile phones. „Wireless banking for this population is natural," says Thomas Thard, global manager for the bank and finance segment of Ericsson's Mobile Internet Applications and Solutions division in Stockholm.

Newsweek/Dec-Jan 2000-2001

1. feladat

Olvassa el az 'Internet-accessible mobile phones…' című szöveget, és döntse el, hogy az állítások igazak vagy hamisak a megadott példa (0) szerint.

Állítások	**Igaz**	**Hamis**
0. The mobile phone is becoming essential necessity for life.	*X*	
1. The Internet is mainly used for banking and bill paying.		
2. Nokia Mobile Phones Co. is striving to find out a system that will help customers to lease cars.		
3. Manufacturers of different industries can store data about their employees' performances by using mobiles.		
4. Pocket PCs and mobiles help the communication between doctors and patients.		

2. feladat

Olvassa el újból a szöveget, és válaszoljon a kérdésekre tömören, a lényeget tartalmazó szavakkal, a példa (0) szerint.

Kérdések	**Válaszok**
0. Beside storing and transfering data, how can the new generation of mobile phones help the modern world?	*keeping track of emails and news*
5. What tools do Nokia Communicators unite functionally?	
6. How does syncronization technology change data?	
7. What is the reason that data transfering by mobile phones is still slow?	
8. What can the user of MobileDoc programme see on the wireless-phone screen?	
9. Where can the documents be sent forward if a printed version is desirable?	
10. In which fields of economy have the usage of mobiles accelerated in Sweden?	

KÖRNYEZETVÉDELMI TEMATIKA

KÖRNYEZETVÉDELMI HÁTTÉRANYAG

Air Pollution

Mechanization and industrialization
The Industrial Revolution has had an enormous effect on the natural systems that influence the world's climate. Combustion of fossil fuels in factories, power-plants, domestic heating, forest fires, cars, ships and aeroplanes causes problems for our environment. This text is about one kind of pollution, the pollution of air.

Smog
An everyday example of air pollution is a diesel engine that is not maintained properly: you can see and smell the black exhaust gases before they are blown in the wind. Air pollution is sometimes visible for a longer period, e. g. when it mixes with fog. This combination, called 'smog', has killed several thousands of people all over the world. Among the cities with a bad reputation are Los Angeles, London, Mexico City and Tokyo. Fortunately, conditions in London have improved considerably since the introduction of the Clean Air Act (1956). But a clear sunny day is still an exception in Mexico City and L.A.

Acid rain
A second form of pollution is acid rain which is very harmful to vegetation. A recent investigation showed that 59% of the woodland (woods) in The Netherlands was more or less affected by acid rain. And woods are of vital importance, because plants and trees change nitrogen into oxygen. Acid rain had become a serious block for the industrialized world.

Lead
Another pollutant from car engines is lead. Although unleaded fuel was introduced in the 1970s and catalytic converters were first used in the 1980s, lead is still a serious problem. It does not travel as far as most other pollutants because it is so heavy. Yet it may be found in high concentrations in cities and near roads and motorways. Lead is dangerous to humans, especially to young children as it can affect brain development.

Aerosol cans

Pollution is not only caused by exhaust gases. In the 1960s aerosol sprays became more and more popular. The propellant, a hydrocarbon product, was used e.g. for spraying paint, insecticides or deodorants. In the 70s it was discovered that the propellants concentrated in the atmosphere. Under the influence of the ultraviolet radiation of the sun, these gases break down the ozone in the stratosphere. The ozone layer filters much of the ultraviolet radiation. Too much radiation is harmful for living organisms.

Man and nature
One of the consequences of the growing number of people on earth is that many trees are cut down. In 1988 200,000 square kilometres of rain forest (jungle) were burnt down for development in Brazil. This is four times the surface area of The Netherlands. This can have serious consequences for the climate.
In the 1980s at least seven years were exceptionally dry in Northern America which had quite an effect on agriculture, vegetation and animal life. We will have to be very careful with our environment in many respects. The Industrial Revolution and the developing technology have brought us many advantages, but they have also brought with them many dangers. Man will have to solve these problems to keep our planet a good place to live.

Water pollution

Japan
In its attempts to industrialise Japan initially paid little attention to the consequences upon its environment. Water resources, in particular, have become severely polluted, causing serious health problems to both humans and water life.

Causes of water pollution
Farming: Fertilisers and pesticides are washed through the soil by the heavy Japanese rainfall, and make their way into fields, rivers, lakes and the sea. Phosphates and nitrates encourage the growth of algae and other water plants, which use up oxygen and leave insufficient for fish to live.

Industry: Industry also dumps its waste into water supplies. One consequence has been the rapid decline in the number of fish caught. During the 1950's mercury waste was released into Minamata Bay. The fish were eaten by humans, which resulted in the deaths of over 100 humans – as the level of mercury accumulated. Children were born with mental and physical defects (blindness, deformed limbs).

Power stations: Thermal power stations eject hot water into rivers and seas raising the local temperature beyond and reducing the oxygen content. Japan has over 25 nuclear power stations and the threat is there.
Oil-tankers illegally wash their tanks at sea, and can cause considerable environmental damage if they are involved in accidents. Japan's major disaster was in 1974.
The future: How long can the oceans continue to be a dumping ground for human waste? How much waste can the ocean absorb?

Soil erosion

Only 30% of the earth's surface is land, and only 11% of this is classed as prime agricultural land. It can take 100 to 400 years to produce 10 mm of soil, and between 3000 and 12000 years to produce a sufficient depth for farming. Yet human development is ruining this essential ingredient: it is estimated that by 2010 one-third of the area now ploughed will have been reduced to dust. Erosion is most rapid in areas where the land is misused and where climatic conditions are extreme.
If the vegetation cover is removed it means no more humus is added, there are no roots to bind the soil together, and the surface is exposed to wind and rain.

Deforestation and consequences

Why are the rainforests being cleared?
- to satisfy the needs of the developed world for an increasing amount of timber. Most clearances have taken place along the more accessible rivers and beside the highways.

- to try to provide land for many landless Brazilians (and others). About 10km strips have been cleared along the highways for new settlements.

- for large cattle ranches run by the multinationals who sell the beef for the developed countries to consume as hamburgers. Most ranches tend to be on the southern edges of the rainforests, and large areas have been burnt for creating them.

- to try to develop some of the region's natural wealth including iron ore, bauxite, copper, manganese and water power.

Consequence of the clearances

- Loss of countless birds, reptiles and animals which find their food and habitat in the forest, as well as numerous species of trees. Over half of our modern drugs have their origin in the rainforests. Recently one plant has been used to treat leukemia in children, and deaths have fallen from 80% of total cases to 20%.

- In the hot, wet climate fallen leaves soon decompose, and the released nutrients are taken up by vegetation again. If trees are removed, humus is lost, the nutrient cycle is broken, and the nutrients are rapidly washed (leached) out of the soil leaving it infertile.

- Recent investigations suggest that between one third and one half of the world's oxygen supply come from trees in the rainforest, and that one quarter of the world's fresh water is stored in the Amazon Basin. Both reserves would be lost if the Amazon was totally deforested.

- Without trees there would be a decrease in evaporation. This will mean less rainfall and will increase the chances of the Amazon becoming a desert (just as several areas of forest in Africa have become semi-desert).

- Deforestation could lead to changes in the world's climate. The burning of trees releases carbon, which turns into carbon dioxide in the atmosphere. Carbon dioxide traps heat (greenhouse effect), and so this could cause a rise in world temperatures. (One suggestion is that Britain's temperature would include the melting of the polar ice caps which would cause a 30m rise in the sea level and floods lands on which 30% of the world's population lives).

- It would also cause the climate belts to shift (e.g. the Sahara would extend into the Mediterranean). An opposing theory suggests the layer of carbon dioxide would limit incoming heat from the sun, and a new ice age would come.

Green Airlines

In 1992, **US airlines** consumed nearly 4 billion gallons of fuel, and contribute two to three percent of total carbon dioxide emissions. They produce tons of plastic, paper, glass and other waste each year. With other travel-related industries (e.g. cruise ships) airlines have recognised the extent of their resource consumption and pollution contribution, and have found environmental solutions. Two U.K. based companies, **British Airways** and **Virgin Atlantic** have adopted aggressive programs that confront environmental problems.

In 1989 British Airways identified noise, atmospheric emission, air traffic congestion, waste and tourism needing action. A special Environment Branch of the company is now developing

steps to reduce them. For example, delays at Heathrow and Gatwick airports alone cause the airline to burn an extra 63,000 tons of fuel per year. To minimise congestion, British Airways leads a European action group that promotes improvements in air traffic control. On the solid waste front, the company replaced disposable products with reusable ones and now recycles waste oil, glass bottles, headrest covers, plastic cups, scrap metal and aluminium cans. Modernising the aircraft fleet improves noise levels, fuel efficiency and exhaust emissions.

British Airways also runs the Tourism for Tomorrow Awards in conjunction with the Federation of Tour Operators. Now, in its fifth year the programme recognises eco-friendly tourism projects, developments and initiatives, selecting one Global winner, five Regional winners and giving a number of awards. Last year, U.K. based Coral Cay Conservation captured the Global prize for organising volunteer divers to help manage the Belize Barrier Reef.

Virgin Atlantic's ecological efforts both on board and behind the scenes benefit passengers and the company. Flight attendants wearing a special uniform has began pacing the aisles on selected Virgin Atlantic domestic and international flights. Under the new program, these green-clad eco-operatives educate the crew and the passengers about the benefits of recycling. Virgin's recycling efforts saved the company more than Ł500,000 last year, and by expanding the program throughout its service area, the company stands to save considerably more next years.

Green policies include collection and reuse of all unopened passenger amenity kits; on-board collection of glass, plastic cups and newspapers for recycling; recycling passenger headsets; reduced inventory of newspapers and magazines. By investing in new aircraft, the company also reduced emissions and noise levels.

GYAKORLÓ SZÖVEGÉRTÉSI FELADATOK

1. A bit green about the environment

Researchers find there is wide ignorance of the science behind ecology

0. Do you recycle your bottles? Buy CFC-free aerosols? Take the bus instead of the car? A lot of people have changed their habits as a collective green conscience has swept Europe over the past decade - but a new survey suggests that many do not understand the reasons for their behaviour.

1. In a two-year study University of Chicago researchers asked 25,000 people from 20 countries, including 15 in Europe, a dozen basic questions on the environment and related issues. The answers provide an unusual insight into the public's acquaintance with - or ignorance of - current scientific thinking. The researchers found, for instance, that many people still do not know where radioactivity comes from or how environmentally harmful the car is.
2. There is even widespread confusion over two of the most widely debated environmental topics: global warming and ozone depletion. "It is not too surprising that people confuse them, although they are very different problems. People see a threat to the air they breathe as a single problem", says Raymond van Ermen of the European Environmental Bureau in Brussels.
3. While the confusion over global warming and ozone holes was shared by many people, in overall knowledge there were sharp differences between countries. With the exception of eastern Germany, the old Soviet bloc countries fared badly on most topics, a fact that van Ermen attributes to the absence of awareness campaigns and a lack of coverage in media more concerned with crises at home.
4. "But even their knowledge of radioactivity is bad, despite the events in Chernobyl," he laments. Only 14% of Poles and 23% of Russians knew that radioactivity occurs naturally as well as being man-made. Elsewhere, national concerns influence people's knowledge. Spain was bottom of the class in Western Europe, with Italy just ahead. Both fared badly on the question of radioactivity, probably because neither country has a nuclear industry. But while only one-third of Spaniards knew that the car was an environmental hazard, most did know about the extinction of plant and animal life because of threats to the environment in Spain's mountainous regions.
5. Everyone seems to know about the long life of dangerous radioactive materials, but this was attributed to the number of futuristic American films that feature such facts.
6. Not surprisingly, says van Ermen, overall knowledge was directly linked to the level of education. Norway, the UK and the Netherlands, where environmental matters are taught in all schools, came out ahead of other European countries. Now the European Commission is working on legislation to make study of the environment a compulsory part of the curriculum in the EU.

The European Magazine, 14-20 July 1995

1. feladat

Olvassa el a „A bit green about the environment” című szöveget, és írja be az alábbi táblázatba, hogy a szöveg melyik bekezdéséhez melyik alcím tartozik, a példa szerint (0). Az egyik alcím fölösleges.

Alcímek:

A. Two main environmental issues
B. The role of fossil fuels in the greenhouse effect
C. European peoples’ views on radioactivity
D. Unsatisfactory knowledge due to the lack of green campaigns and economic problems
E. Ignorance of ecological science
F. Long lasting effect of radioactive waste
G. Environmental subjects compulsory in EU schools
H. Increase in environmental protection awareness

0	1	2	3	4	5	6
H						

2. feladat

Olvassa el újra a szöveget, és döntse el a szöveg alapján, hogy az alábbi állítások igazak-e vagy hamisak. Írja a megoldását a táblázatba a példa (0) szerint.

Állítások	**Igaz**	**Hamis**
0. The Univ. of Chicago conducted a study on environmental issues.	***x***	
7. An environmental organisation is described in the text.		
8. The research showed that people are confused over environmental topics.		
9. National concerns on environmental issues depend on people’s knowledge.		
10. All radioactivity is made by humans.		

2. Protecting our environment

0. Our environment is threatened in many, often inter-related ways. The Community’s overall strategy must reflect this reality. Global warming and the ensuing climatic changes that will transform temperate zones of the earth into arid deserts and flood low-lying parts of the globe as icy caps melt, is only one prospect of environmental degradation that faces mankind. It is caused by the release of so-called greenhouse gases into the atmosphere, principally carbon dioxide (CO_2) from the burning of fossil fuels. Globally, our consumer society produces billions of tonnes of waste in the form of by-products from industry, old and used items, packaging materials and agricultural inputs. In the European Community alone, more than 21 million tonnes of toxic waste have to be treated each year.

1. Pollution originating in one EU member country can spread freely across borders into others. Thus it makes sense for the Community, as it dismantles commercial and political frontiers, to assume more responsibility for devising and implementing the EC's environmental policy. The Community must also be ready to act in a global context. It is in its own interest to support environmental protection efforts by its neighbours to the east and by the nations of the Third World.

2. The European Community is the world's biggest single market and largest trading group. Its peoples have reached a significant level of economic well-being. It is therefore better placed than many to put its own house in order and give a lead in developing environmentally sustainable growth patterns. The Community must use more effectively its position of moral, economic and political authority to advance international efforts to solve global problems and to promote sustainable development.

3. With its fifth environmental action programme published in April 1992, the European Commission signals a change in strategy, shifting away from the previous corrective action to one based on preventive action. The stress is put on a more rational use of resources – producing less in the first place and using what we produce more efficiently. Re-use and recycling are also vital if finite resources are to be conserved. Energy efficiency is particulary important in order to reduce CO_2 emissions. Emphasis is on developing renewable or non-polluting energy sources. Waste management must be based on the principles of the prevention of waste, recovery (via recycling or reuse). But the new strategy also demands a change in patterns of consumption and behaviour and requires a sense of shared responsibility on the part of government, industry and the individual citizen.

4. The cross-border and even global nature of certain environmental challenges requires the Community to intensify its regional and international cooperation. Global issues have become so important that, in the runup to the year 2000, they could become an important factor in determining the ways in which international relations will develop – economically, politically and in terms of security. Environmental problems are posed differently in different parts of the world. In the Community and other industrially advanced coutries, the essential aim is to modify consumption patterns. The internal and external dimensions of Community policy are therefore inextricably linked. Both aspects must be built up to a coherent and effective response to the complex problems which found expression in the 21st Agenda adopted at the United Nations Conference on Environment and Development (Unced) in June 1992.

Office for Official Publications of the EC, 1992

1. feladat

Olvassa el a ,,Protecting our environment'' című szöveget, és állapítsa meg, hogy melyik alcím melyik bekezdésnek felel meg, a példa (A-0) alapján. Eggyel több alcím szerepel!

Alcímek:

A. *The issues*
B. A shift in strategy
C. Pollution knows no frontiers
D. The Community and global problems
E. The Community's record
F. Environmental threats

0	1	2	3	4
A				

2. feladat

Olvassa el újra a szöveget, és döntse el, hogy az állítások igazak vagy hamisak, a megadott példa (0) alapján

	Állítások	**Igaz**	**Hamis**
0.	*Mankind causes harm to the environment in many ways.*	*X*	
5.	Industry, agriculture and consumers produce massive waste.		
6.	The Community has to protect the environment only within its borders.		
7.	The new programme published in 1992 aimed at production increase.		
8.	This new programme requires changing in consumption and behaviour.		
9.	Preventive methods instead of corrective ones are involved in the new strategy.		
10.	EC supports the environmental protection activities of the developing countries		

3. Can the Earth survive Ecotourism?

Running an ecofriendly tour operation nowadays is not always as easy as it sounds. „Ecotourism" started more than a decade ago as a concept to protect fragile ecosystems by marketing them to governments and locals as profitmaking assets. The goal was to develop tourism not by destroying the environment but by inviting foreign visitors to experience it as if they were natives. By some measures, it has surpassed the expectations of even the most devoted idealists.

Tourism today is one of the world's fastest-growing industries; Francesco Frangialli, secretary-general of the World Tourism Organization, estimates ecotourism is growing „maybe double, even triple," the rest of the industry. In May, 1,100 representatives from more than 130 countries convened at a special United Nations conference in Quebec to celebrate the International Year of Ecotourism. Aid agencies were on hand to expound on its development possibilities.

Yet with that tremendous growth has come a mounting backlash, and complaints that maybe ecotourism isn't such a good idea for the environment after all. Sure, governments now have more incentive to protect fragile environments. But indigenous groups from Indonesia to Brazil complain of being forced off them by ruthless developers. So many travelers are eager to get back to nature that they end up trampling it in the process. In parts of Nepal, hikers and campers have cut down so many trees for Himalayan campfires that the area is becoming deforested. There's even a burgeoning movement of anti-globalization protesters and Non-Govermental Organisations that have set up their own campaign called the „International Year of Stopping Ecotourism."

With tourist trips expected to rise from 688 million last year to more than 1.55 billion by 2020, many see ecotourism as one of the best hopes for development in poor countries and the only path toward tourism that can be sustained in the long term – if it's done right. If it's done wrong, one needs to look no farther than the slopes of Mount Everest for a preview of what's to come: years of accumulated garbage.
„We have to find a direction to ecotourism before any more damage is done," says Roger Wheelock, executive vice president and director of the Canadian Tourism Commission. „There's been a lack of understanding about what it is. And there are a lot of tourist enterprises that have gone into fragile environments that have not adopted (any) standards."

It was never supposed to be this way. Ecotourism grew out of the environmental movements of the 1970s and 1980s. On weekend bird-watching expeditions, a young Mexican architect noticed that scores of foreigners were also traveling to the same reserves. So when private developers unveiled a plan to move into pristine flamingo habitas in the Mexican Yucatán, the architect began selling a new concept he called „ecotourism." „I argued that tourists would come and it would help the local people," he recalls. „I convinced the governor of the state of Yucatán, and it has been turned into a very successful nature reserve in Mexico. There used to be fishermen complaining. Now they make income as guides. This story could be repeated in many countries around the world."

Indeed it could. In the years that followed, ecotourism became the basis for national tourism plans. In Ecuador, bitter battles raged over Charles Darwin's famed Galápagos Islands, with fishermen at times spiting environmentalists by slitting the throats of endangered sea turtles. But when a national policy was put into effect to protect the endangered habitat, and the area was marketed, tourists flocked from around the globe. Many of those same fishermen now work as guides.

Solutions to the problems seem a long way off. Some countries are already working to set up some sort of accreditation process for tour operators that would force them to prove they are ecofriendly.
But how would such a system be enforced? Even with such a scheme, can fragile environments survive the armies of tourists expected to flood the trails in the coming years? Perhaps environmental groups, too, might have thought a little harder about what exactly it was they were trying to sell.

1. feladat

Olvassa el a „Can the Earth survive ecotourism'' című szöveget, és válaszoljon a következő kérdésekre legfeljebb 8 szóban a megadott példa (0) szerint.

	Kérdések	**Válaszok**
0.	*How did the ecotourism concept want to develop tourism?*	*to get experience as if tourists were natives*
1.	What was the original aim of ecotourism?	
2.	What have tourist entrepreneurs caused to some parts of Himalayan forests?	
3.	When can ecotourism help the development of poor countries?	
4.	What do native groups from Indonesia to Brasil complain about?	
5.	How do some countries try to control the tour organisers?	

2. feladat

Olvassa el újból a szöveget, és egészítse ki a táblázatot a hiányzó információkkal, a példa (0) szerint.

	Organisers/initiators	**Events/movements**
0.	*Environmental movement*	*Ecotourism*
6.	**United Nations Organisation**	
7.		International year of stopping ecotourism
8.		
9.	A young Mexican artist	
10.		Trying to find a new direction to ecotourism

4. Britons 'in favour of wind farms'

Three-quarters of Britons believe wind farms are necessary to help meet demand for energy, a survey by the British Wind Energy Association suggests. The body claims the vast majority of the public feels the need for clean sources of renewable energy. The study also suggests 70% of those polled would support the creation of a wind farm in their area. But opponents of wind farms say they are unsightly and point out that wind is an unreliable source of power.

Two surveys have been merged into the study: one by World survey on behalf of BWEA, and one by ICM Research on behalf of Greenpeace. Both polls were carried out in the month of August, each involving 1,000 adults.

Chief executive, Marcus Rand, said: "Time is running out on climate change and wind power is essential to averting its potential impacts. "Britain has the best wind resource in Europe - it's everlasting, on our doorstep and ready to use now. "By embracing wind, we will

increase our nation's energy security and create thousands of new jobs in Britain, but we need to act now."

The chair of campaign group Country Guardian, Angela Kelly, told BBC News Online: "Most of the public have not studied the facts. But the more the public discover the truth about wind farms, the less they want them.

"The Achilles' heel of wind power is you cannot predict it even 10 minutes in advance, so it has to be backed up at all times by a secure supply of electricity and you cannot afford to shut down any existing power plants.

"We already have more than 1,100 wind turbines in this country and they do not even produce enough juice to run one factory. The power generated is at such a high cost that it is only economically viable by virtue of a package of subsidies that, according to official figures, will be worth Ł1bn in 10 years' time. This must be found from the consumer to boost the profits of a few multinational corporations and shrewd investors."

Ms Kelly added: "I am not prepared to see inappropriate and unnecessary industrialisation reduce the UK's unique and varying landscape to a common denominator of cloned mechanical monsters.

TV presenter Chris Tarrant added that the campaign aimed to challenge the myths and prejudices about wind turbines, and show that the majority of the public welcome the spread of this clean source of energy.

Members of the public will be able to sign a petition at the Embrace The Revolution website, and the names of every supporter will go on four new turbines to be set up in 2005.

The architects behind the London Eye, David Marks and Julia Barfield, said they believed the current wind turbine technology represented the best environmentally sustainable and economically viable source of renewable energy.

"That is why we are actively exploring ways to incorporate wind turbines within landmark buildings that we are designing today," they added.

TV botanist David Bellamy recently led a march in south Wales to oppose plans to build wind turbines on a mountain.

The protest was led by campaigning group Save Our Common Mountain Environment (Socme), which claims that wind farms will push up energy prices and that they ruin landscapes and kill birds and bats.

They also say that wind is an unpredictable and therefore unreliable source of power, and that turbines can be damaged or even knocked down by storms.

But some local communities have reacted positively to the introduction of the turbines.

Margaret Munn, a councillor in Ardrossan, Ayrshire, said her community had "overwhelmingly accepted" a new wind farm.

"Instead of spoiling the landscape, we believe it has been enhanced," she said.

"The turbines are impressive-looking, bring a calming effect to the town and, contrary to the belief that they would be noisy, we have found them to be silent workhorses."

news.bbc.uk 2004/09/20

1. feladat:

Olvassa el a "Britons 'in favour of wind farms'"című szöveget, majd jelölje be táblázatba a *példa (0)* szerint, hogy a felsorolt emberek támogatják, vagy ellenzik a szélenergia-erőműveket!

	Nevek	**Támogatják**	**Ellenzik**
0.	*Marcus Rand*	***X***	
1.	David Bellamy		
2.	David Marks		
3.	Julia Barfield		
4.	Margaret Munn		
5.	Angela Kelly		
6.	Chris Tarrant		

2. feladat:

Olvassa el ismét a szöveget, majd válaszoljon a kérdésekre röviden (3 – 4 szóval) a megadott *példa (0)* szerint!

Kérdések	**Válaszok**
Who took part in the study?	*0. BWEA and Greenpeace*
How many people were questioned in the surveys?	7.
What is the most serious argument against wind power stations?	8.
How do architects plan to design new landmark buildings?	9.
What will happen if somebody signs the petition at the Embrace the Revolution website?	10.
Why can wind turbines improve the landscape?	11.

5. Pollution: A life and death issue

(0). …Environmental issues facing humanity…..
One of the main themes of Planet Under Pressure (a BBC News website) is the way many of the Earth's environmental crises reinforce one another.
Pollution is an obvious example - we do not have the option of growing food, or finding enough water, on a squeaky-clean planet, but on one increasingly tarnished and trashed by the way we have used it so far.
Clearing up pollution costs money, yet time and again it is the quest for wealth that generates much of the mess in the first place.

(1)…….

Living in a way that is less damaging to the Earth is not easy, but it is vital, because pollution is often life-threatening.

The World Health Organization (WHO) says 3 million people are killed worldwide by outdoor air pollution annually from vehicles and industrial emissions, and 1.6 million indoors through using solid fuel. Most are in poor countries. Diseases carried in water are responsible for 80% of illnesses and deaths in developing countries, killing a child every eight seconds. Each year 2.1 million people die from diarrhoeal diseases associated with poor water. Contaminated land is a problem in industrialised countries, where former factories and power stations can leave waste like heavy metals in the soil. It can also occur in developing countries, sometimes used for dumping pesticides. Agriculture can pollute land with pesticides, nitrate-rich fertilisers and slurry from livestock. And when the contamination reaches rivers it damages life there, and can even create dead zones off the coast, as in the Gulf of Mexico.

(2)……

Chemicals are a frequent pollutant. When we think of chemical contamination it is often images of events like Bhopal that come to mind.

One study says 7-20% of cancers are attributable to poor air and pollution in homes and workplaces. Some man-made chemicals, endocrine disruptors like phthalates and nonylphenol - a breakdown product of spermicides, cosmetics and detergents - are blamed for causing changes in the genitals of some animals.

About 70,000 chemicals are on the market, with around 1,500 new ones appearing annually. At least 30,000 are thought never to have been comprehensively tested for their possible risks to people.

(3)……..

But the snag is that modern society demands many of the chemicals, and some are essential for survival.

So while we invoke the precautionary principle, which always recommends erring on the side of caution, we have to recognise there will be trade-offs to be made.

The pesticide DDT does great damage to wildlife and can affect the human nervous system, but can also be effective against malaria. Where does the priority lie?

The industrialised world has not yet cleaned up the mess it created, but it is reaping the benefits of the pollution it has caused. It can hardly tell the developing countries that they have no right to follow suit.

Another complication in tackling pollution is that it does not respect political frontiers. There is a UN convention on transboundary air pollution, but that cannot cover every problem that can arise between neighbours, or between states which do not share a border.

Perhaps the best example is climate change - the countries of the world share one atmosphere, and what one does can affect everyone.

(4)…….

One of the principles that is supposed to apply here is simple - the polluter pays.

Sometimes it is obvious who is to blame and who must pay the price. But it is not always straightforward to work out just who the polluter is, or whether the rest of us would be happy to pay the price of stopping the pollution.

One way of cleaning up after ourselves would be to throw less away, designing products to be recycled or even just to last longer.

Previous generations worked on the assumption that discarding our waste was a proper way to be rid of it, so we used to dump nuclear materials and other potential hazards at sea, confident they would be dispersed in the depths.
We now think that is too risky because, as one author wrote, "there's no such place as 'away' - and there's no such person as the 'other'.
Ask not for whom the bell tolls - it tolls for thee, and for me.

http://news.bbc.uk

1. feladat:

Olvassa el a Pollution: A life and death issue című szöveget, és állapítsa meg, hogy melyik alcím melyik szövegrész tartalmának felel meg. Az egyik alcím felesleges. Válaszait írja a táblázatba a megadott *példa (0)* szerint.

A. *Environmental issues facing humanity*
B. Chronic problem
C. Cutting waste
D. Compromise
E. For one and all
F. Pervasive pollution

0.	1.	2.	3.	4.
A				

2. feladat:

Olvassa el ismét a szöveget, és töltse ki a táblázatot a megadott *példa (0)* szerint.

The main reason for creating pollution	*0. quest for wealth*
The reason why it is difficult to deal with air pollution	5.
Two chemicals that can cause problems in the genitals	6.
	7.
A useful substance against malaria	8.
The reason why waste used to be dumped in the seas	9.
Two main types of air pollution	10.
	11.

6. A question of survival: why the fight against climate change should be given more priority

0. The problem of climate change is probably very much worse than the latest assessment of the Intergovernmental Panel on Climate Change (IPCC) makes it out to be. Many members of the IPCC are likely to agree. The IPCC admits that 'its models cannot yet simulate all aspects of climate'. This is not surprising as mathematical models can only take into account factors that can be quantified and, unfortunately, many important aspects of climate are very difficult to quantify with any great credibility.

1. The IPCC is quite honest about this. It warns of projected climate changes during the 21st century as having 'the potential to lead to future large-scale and possibly irreversible changes in Earth systems'. Among these changes it specifies 'accelerated warming' due to the release of carbon stored in the world's forests, soils, permafrost regions, oceans and hydrate in coastal sediments.

2. The amount of carbon that could be released from these natural reservoirs is enormous. The world's vegetation, including its forests, contains some 600 billion tonnes of carbon; tundra, permafrost and other soils contain about 1,600 billion tonnes of carbon; methane hydrates as much as 10,000 billion tonnes; and the oceans nearly 40,000 billion tonnes. In comparison, the atmosphere currently contains just 750 billion tonnes of carbon. Moreover, between them, terrestrial and oceanic sinks absorb some 50 % of carbon dioxide emissions. What happens to the biosphere as temperatures rise is thus of critical importance, yet it has been largely left out of IPCC calculations.

3. More sophisticated models are beginning to give us an idea of what could happen to global climate if such factors are taken into account. The Headly Centre has built a new model which projects that within the next 50 years, if emissions continue at the present rate, much of our forests and soil will be transformed into sources of, rather than sinks for, CO2 and methane. As a result, the Headly Centre finds itself forced to project an extra 3°C increase in world temperatures by the end of the century. The IPCC's maximum of 5.8°C now becomes 8.8 °C.

4. Still left out of this forecast, however, is the full impact of higher temperatures on the oceans and on methane hydrates, from which releases are already occurring. The question we must ask is: 'How much will be released, and at what rate?' Also, by how many degrees would the IPCC projections for temperature rise this century have to be increased if these and other such factors were to be properly included? Climatologists Jerry Mahlman and Alberto di Fazio foresee a 10-14 °C change in temperature by the end of the century. Who knows if they are right?

5. Whoever is correct, when each of the recent temperature change predictions are presented as a percentage of the average world temperature, which is about 14°C, it is apparent that we are in a very dangerous situation. Viewed in this way, the IPCC's 5.8 °C change implies a 41% increase in world temperature, which is enormous. The Headly Centre's 8.8 °C means a more than 60% rise, whereas Mahlman and di Fazio's

10-14°C change involves an incredible 71-100% increase in temperature. Can we survive such massive changes? Who knows?

1. feladat:

Olvassa el a ‘A Question of Survival’ című szöveget, és döntse el, hogy melyik bekezdéshez (1-5) melyik összefoglaló (A-G) tartozik, a példa szerint. Egy összefoglaló fölösleges.

Összefoglalók
A. The content of carbon in the biosphere
B. The effect of temperature rise
C. Predictions of the new model
D. *Inadequate models*
E. Cooperation between the IPCC and the Headly Centre
F. The question of survival
G. A climate change specified by the IPCC

0	1	2	3	4	5
D					

2. feladat:

Döntse el a szöveg alapján, hogy a megadott állítások igazak vagy hamisak. Írja megoldását a táblázatba a példa (0) szerint.

ÁLLÍTÁS	**Igaz**	**Hamis**
0. The members of the IPCC claim that the problem of climate change has been correctly assessed.		***X***
6. Some climate changes can be simulated by mathematical models.		
7. The impact of temperature rise on the biosphere has already been studied by the IPCC.		
8. The Headly Centre predicts that forests and soil will release carbon instead of absorbing it.		
9. The IPCC forecasts a higher increase in world temperatures than the Headly Centre.		
10. Mahlman and di Fazio’s forecast about the increase in temperatures depicts the worst situation.		
11. According to the author, all of the above mentioned predictions are alarming - regardless of their figures.		

ÍRÁSKÉSZSÉG

Táblázat leírása

Vizsgatippek a feladat megoldásához:

1. A táblázatleírás során kövessünk egy fajta logikát, és akkor semmi lényeges információt nem fogunk kifelejteni. A megadott példamondatot elolvasva, ahhoz kapcsolódva, folytassuk a leírást. A cím után ismertessük, hogy az oszlopok és a sorok milyen információt tartalmaznak, és milyen mértékegységben vannak megadva az adatok. Ha időmenzió is van, ismertessük, milyen időtartartamról van szó.
2. Ha statikus adatok vannak megadva, tehát az adatok nem az időben változnak, akkor a fő hangsúly az összehasonlításon van. A legkiugróbb, legérdekesebb (legalacsonyabb, legmagasabb) értékekkel lehet kezdeni, aztán pedig összehasonlításokat tenni egyes szereplők között (nagyobb, kisebb, erősebb, gyöngébb, stb.). Tehetünk mennyiségi összehasonlításokat- pl: kétszer annyi, mint, …. harmada a …vminek. Ha tudjuk, mi állhat az adatok hátterében, leírhatjuk, értelmezhetjük, de ez nem kötelező elem.
3. Ha dinamikus, időben változó adatok vannak a táblázatban, akkor a fent említett összehasonlításon kívül tendenciákat tudunk ismertetni. Itt használhatjuk a grafikonleírásnál is alkalmazott tendencialeírások logikáját és szókincsét (csökkenés, növekedés, stagnálás, ezek üteme, milyensége, mélypontok, csúcsok, stb.), lehetőleg minél változatosabban, hogy a vizsgázó bemutassa, milyen bő a szakmai szókincse. Itt is igaz, hogy ha tudjuk, mi állhat az adatok hátterében, leírhatjuk, értelmezhetjük, de ez nem kötelező elem.
4. Nagyon fontos, hogy a leírás elérje az előírt hosszúságot, és hogy felhasználjuk (helyes értelemben és nyelvi formában) a megadott szavakat, mert ha ezek nem teljesülnek, az pontlevonással jár. A megadott szavakból más szófajt is lehet képezni, ha az így képzett szót nyelvtanilag helyesen foglaljuk mondatba.
   (Pl. „grow” van megadva. Írhatjuk, hogy: There was a growth between 2017 and 2019.)

Mintafeladat megoldással:

Task 1

Study the table and use the 10 words or expressions provided to describe the main characteristics of the table. Your description should be about 120-160 words. Use the words in their correct form, corresponding to the information in the table. Support your ideas with numerical data from the table. Your description should include tendencies and comparisons.

Apple: Main Products - Worldwide Average Selling Price (ASP)

USD 26-Aug-13

	2013	2014	2015	2016	2017		2023
Mac - Desktop	$ 1,300	$ 1,250	$ 1,210	$ 1,170	$ 1,140	...	$ 1,000
Mac - Portable	$ 1,200	$ 1,190	$ 1,180	$ 1,170	$ 1,160	...	$ 1,100
iPod	$ 155	$ 150	$ 145	$ 140	$ 135	...	$ 123
iPhone	$ 630	$ 589	$ 550	$ 495	$ 442	...	$ 325
iPad	$ 542	$ 531	$ 520	$ 514	$ 510	...	$ 495
Apple Smart Watch	*n/a*	399.0	$ 390	$ 374	$ 359	...	$ 276
Apple TV Set	*n/a*	*n/a*	$ 1,400	$ 1,390	$ 1,375	...	$ 1,127

Source: Generator Research

in general high considerably steady	~~table~~ by fall clearly	change for example predict

0. This is a **table** showing the worldwide average selling prices of Apple's main products.

Egy lehetséges mintamegoldás:

The source of the table is Generator Research. The rows list Apple's main products, such as desktops, smart phones, watches and TV sets. The columns present the years from 2013 to 2017.

The prices of the products are given in US dollars.

In general, we can see that the selling price of all the listed products **fell steadily** year **by** year. The last column shows the **predicted** price of these products in 2023. It can be **clearly** seen that the prices will continue to decrease by this year. **For example**, the price of a Mac desktop will fall from 1,140 USD in 2017 to 1,000 USD in 2023.

According to the table, in 2013 a Mac desktop has the **highest** price with 1,000 USD, while in 2023 this product will be only the third most expensive one.

If we compare the price **changes**, we can see that the price of iPhones and smart watches will probably decrease more **considerably** than that of the other products.

Gyakorló feladatok:

Task 1

Study the table, and describe it in about 120-160 words using the 10 given words or expressions in their right forms. You may include numerical data as well to support your description, which should contain comparisons.

Boiling and melting temperatures of some metals

Metal	Boiling Temperature		Melting temperature	
	(°F)	*(°C)*	*(°F)*	*(°C)*
Aluminum	4473	2467	1218	659
Copper	4667	2575	1981	1083
Gold	5072	2800	1945	1063
Iron	5198	2870	2200	1204
Platinum	4098	3825	3220	1770
Silver	4013	2212	1761	951
Tin	4712	2600	449.4	232
Titanium	5954	3290	3040	1670
Zinc	1670	910	787	417

The words to use:

MARKING BOX								
	1.	**2.**		**1.**	**2.**		**1.**	**2.**
as high as belong to both column			convert difference equal list			precious metal ~~*table*~~ the lowest	✓	✓

Example: We can see a table which shows the boiling and melting temperatures of some metals (0).

Task 2

Study the table and describe it in about 120-160 words using the 10 given words or expressions in their right forms. You may include numerical data as well to support your description, which should contain tendencies and comparisons.

Q3 20014 Preliminary Data
Top Five Smartphone Vendors, Market Share and Year-Over-Year Growth

Vendor	2014Q3 Market Share	2013Q3 Market Share	3Q14/3Q13 Change
1. Samsung	23.8%	32.5%	-8.2%
2. Apple	12.0%	12.9%	16.1%
3. Xiaomi	5.3%	2.1%	211.3%
4. Lenovo	5.2%	4.7%	38.0%
4. LG	5.1%	4.6%	39.8%
Others	48.6%	43.2%	40.8%
Total	**100.0%**	**100.0%**	**25.2%**

Source: IDC Worldwide Quarterly Mobile Phone Tracker, October 29, 2014

The words to use:

MARKING BOX								
	1.	**2.**		**1.**	**2.**		**1.**	**2.**
column dramatical except for express in			high in decreasing order low nearly			percentage quarter ~~table~~	✓	✓

Example : The <u>table</u> shows the market share of the top five smart phone vendors in 2013 and 2014. .

Gyakorlásra alkalmasak még a műszaki témájú táblázatok is, megadott szavak nélkül is. Ha önállóan képesek vagyunk egy táblázatot ismertetni, akkor megadott szavak segítségével egész biztosan sikerül a leírás.

További gyakorláshoz:

1.

The table below shows areas where employers feel skills shortages are impacting productivity in 2017 versus 2019, and there has been drastic jumps across the board:

INDUSTRY SECTOR	2017	2019
Engineering and design	15%	37%
Operations / maintenance / production	20%	32%
Business development	13%	26%
Project controls	5%	23%
Construction / subsea / pipelines	9%	21%
Drilling and well delivery	7%	21%
HSE / QC QA	6%	19%
Geoscience and petroleum engineering	3%	15%
Petrochemicals	2%	15%
Supply chain / procurement / purchasing	4%	15%
Support functions (e.g. HR, finance, IT)	2%	10%

(https://energyoutlookguide.com/2019/07/01/press-release/)

2.

Workplace safety by type of job

Job title	Total responses	Role/position with most impact on workplace safety					
		Safety officer	Foreman	Project manager	Regulatory authority[a]	Site engineer	Other
	No.	%	%	%	%	%	%
Building technician	70	18.6	44.3	7.1	7.1	18.6	4.3
Steel technician	38	31.6	50.0	13.2	5.3	0.0	0.0
Plasterer	31	19.4	38.7	16.1	9.7	16.1	0.0
Tiler	18	5.6	50.0	5.6	5.6	33.3	0.0
Pointing technician	14	14.3	57.1	0.0	14.3	14.3	0.0
Painter	17	41.2	29.4	11.8	5.9	11.8	0.0
Unskilled labourer	107	11.2	51.4	15.9	8.4	13.1	0.0
Electrician	12	16.7	41.7	16.7	8.3	16.7	0.0
Sanitary ware technician	14	21.4	57.1	7.1	7.1	7.1	0.0
Other	27	14.8	51.9	14.8	18.5	0.0	0.0
Total	348	17.8	47.7	12.1	8.6	12.9	0.9

[a]Ministry of Labour.

Construction workers' views on which role/position in the construction industry had the most impact on the workplace safety by type of job

https://www.semanticscholar.org/paper

LEVÉLÍRÁS

Writing a formal letter

1. Match the greetings and endings. Which are formal? Which are informal?

1 Dear Helen	a Yours Bob
2 Dear Sir or Madam	b Yours faithfully Robert J Fleming
3 Darling Rosie	c Love Bob
4 Dear Ms McDonald	d Yours sincerely Robert Fleming

2. Look at this outline of a formal letter. Is it the same as in your country?

Your address (not your name)

The date

The name and address of who you are writing to

The greeting

Introduction

Main part

Concluding comment

The ending

Your signature

3. Read the letter. **Separate the different parts** and write them in the boxes in the outline above.

Rua Luis de Deus 18, 3000 Coimbra, Portugal. 29th March 2000. The Principal, The Oxford English College, 234 Hilton Rd, Eastbourne BN43UA. Dear Sir or Madam, I saw your advertisement for English classes in this month' s English Today magazine and I am interested in coming to your school this summer. I have studied English for three years but I have never been to England and I feel that this is now necessary, especially to improve my pronunciation. Could you send me more information about your courses, and an application form? I would also like some information about accommodation. I look forward to hearing from you as soon as possible. Yours faithfully, Ana Maria Fernandes.

Exercises

1. EXAMPLE: I be very surprised/ receive/ letter/ you this morning.
ANSWER: I was very surprised to receive a letter from you this morning.

27 Poets Road
Cambridge
5 December 1984

The Personnel Officer
Cantab Export Ltd
1 Hill Street, Cambridge
CB1 2EU

Dear Sir/Madam

I write/ reply/ your advertisement/ yesterday's Evening Guardian.
a)……
In it you say/ you look/ secretary/ good computer skills/ who be fluent/ French English.
b) ……
I just complete/ two – year bilingual secretarial course/ my local college.
c)……
At/ end/ course I pass all/ exams/ good marks.
d) ……
Before I start it/ I spend/ year/ France/ living/ French family.
e)……
While I be there/ I learn/ speak French fluently.
f) ……
I be very grateful/ you send me more information about/ job/ application form.
g) ……
I look forward/ hear/ you.
h) ……
Yours faithfully,
Janet Waters

2. FILL IN the spaces from the box below

a) I do hope it has been found
b) I would grateful if you could send it
c) I will of course pay for postage
d) I am writing to enquire whether

22 Prince Avenue
Horbury
March 27th 1999

The Manager
Sherbon Hotel
Vermont

Dear Sir/ Madam,

(5).....
you have found a camera which I left in my hotel room last weekend. I was staying in room 201 from 21st – 23rd. I am almost certain that I left the camera in the bedside cabinet.

(6).....
since it is a very expensive model. It is a Nikon compact, in a black leather case with a red and black strap.

(7).....
by registered post to the above address.
(8).....

Yours faithfully,
I. Crompton.

Writing a covering letter for job applications

Louisa Barry wants to apply for a job through Horizons Unlimited, so she is sending her CV and a covering letter. **Put** Louisa' s letter **in the correct order**. (There may be more than one possibility.) How many paragraphs do you think the letter should have?

a) I would therefore be particularly interested in any secretarial positions that you have available, especially in France or Switzerland.
b) I will be available to start work from the middle of June.
c) I look forward to hearing from you soon.
d) Yours faithfully,
e) I enclose my CV, as requested.
f) I am a qualifed and experienced secretary, and am bilingual in Spanish and English. I also speak French fluently.

g) I am writing in reply to your advertisement for temparary summer positions, which appeared in The Western Mail on 27th April.
h) Dear Sir or Madam,
i) However, I am willing to consider any kind of work.
j) Louisa Barry

(Bi-lingual Administrative Assistant)

Mrs J Hobbs
Personal Officer
Robert Donaldson & Partners
12 Manton terrace
London W1

Kolleg Str.16
1030 Vienna, Austria
23 September 2003

Dear Mrs Hobbs,

Bi-lingual Administrative Assistant
I have seen your advertisement for a Bi-lingual Administrative Assistant in last Friday's 'Guardian', and wish to apply for this post.
At present I am working for a publishing company in Vienna, but for personal reasons I would like to return to the United Kingdom.

At school I specialised in languages and passed advanced examinations in French, German and Italian. After leaving school I went to Hammersmith Secreterial College, where I got my diploma. After finishing this course I spent a year in Italy, where I worked as a hotel receptionist and continued to study Italian.
Then I returned to London and started working for 'The London Informer' selling classified advertising by telephone. After one year in this job I started working for IPCO, the international publishing company in Vienna. In this job I have to assist in the organisation of meetings.
Mr J Keller, the Senior Manager of IPCO has agreed to give reference about my work.
I will be in London from 25 September to 5 October, and will be available for interview during that time.
I look forward to hearing from you.
Yours sincerely,
Sally Brooke

(Assistant Advertising Manager)

'Food and Catering Executive'
High Road, Hackney
London, E19 7GQ
Box.No.5321

2 March 2003
25 Smith's Hill
London SW10 5GH

Dear Sir/Madam,

Assistant Advertising Manager
I am replying to your advertisment which appeared in the 'Food and Catering' magazine, and I would like to be considered for the above position.

I have an MBA degree in marketing from the London School of Economics. I have been with the 'Thomsons Company' for three years. My present position is an assistant team leader, and I am responsible for the marketing of a range of new soft drinks. I have particular responsibility for keeping contact with the advertising and the production teams. My job is very interesting and I can gain a lot of experience.
I am happy here but I believe I am ready to extend my knowledge of food and catering industry and also gain more managerial experience.
I enclose my CV. A reference can be obtained from Mr James Ogly, the Director of Marketing.
I look forward to hearing from you.

Yours faithfully,
Oliver Franks

(Designer Engineer)

Mrs Helen Davies
J &J Ltd.,
67 Walton Rd.,
Coventry CP 3L20

3 Earl Road
London SW 25 L 22

3 June 2004

Dear Mrs Helen Davies,

Designer Engineer
I am writing referring to your advertisement for the post of 'Designer Engineer', which appeared in the 'Modern Technology ' on 12 May as I would be interested in this job. His job seems to involve a new range of challenging tasks for me.
I graduated from the London Technical College 2 years ago. Since then I have been with 'United Technologies' working as a junior designer engineer. The company produces harnesses and other components for cars (Ford, Audi, etc.). In my job I assist senior engineers with their drawings and use CAD and other software programmes.
I am aware that this short letter - even with my CV- cannot adequately communicate my qualifications in the depths. I would appreciate to have an opportunity to meet you personally.
I am available for the interview at any time.
I look forward to hearing from you.

Yours sincerely,
John Jones

(Office manager)

Briggs Manufacturing Co.Ltd
Harvey Street, leadstone
LD12 8HG

26Scarr Avenue, Nottingham
NT4 5BG
UK
September 5. 1995

Dear Sirs

I would like to apply for the post of office manager which you advertised in the Guardian of 24 August 1995. I feel that I am the right sort of person for the post because my qualifications and experience are appropriate.

I studied in Nottigham from 1973 to 1985. I left school with the General Certificate of Education, with good grades in Maths, English and French. I have since attended Nottingham Polytechnic to study company law, accounting, industrial psychology and other subjects related to modern office work. I received the Diploma in Office Studies in 1989.
After leaving school I joined Port and Starbud as a junior clerk. Later I became a senior clerk with Bolton and Ward Ltd., and I have been working there as an Assistant manager since my promotion in 1995.

I enjoy all aspects of office supervision, and I believe I have enough experience to try a new challenge. I hope that you will give my application a serious consideration. My present employers are ready to give references.

Yours faithfully
Mrs Irene Brown

Job description
Embedded Systems (beágyazott rendszerek) Engineer

We don't have to tell you why software is so important – it's the critical connection between technology and customers. An outstanding user interface makes a system easy and intuitive, and good software is absolutely crucial to Lutron's success in the systems marketplace. Lutron software developers create applications that are used to design, program and operate our lighting control systems. You'll define system requirements, develop specifications, create graphical user interfaces, construct relational databases and develop communications protocols. You'll use object-oriented programming techniques and structured language to develop product-related applications; you'll also have an opportunity to develop business-related applications for Internet, intranet and client-server environments.
Project software developers work in cross-functional teams that create new products and bring them to market. You'll be part of a team that takes a product all the way from its original design concept through manufacturing to its ultimate launch into the marketplace. You'll be involved in the process from beginning to end – talking to customers; developing product specifications; creating, prototyping and implementing a design; testing; and launching the final product.

Qualifications
We seek talented, success-minded people with desire and ability to make things happen. Our baseline requirements are simple: You have a bachelor's degree in Computer Engineering, Computer Science, or Maths.
You love challenge, enjoy working in teams and have outstanding communication skills. You pay attention to details, but don't get hung up in them. You are willing to ask tough questions and seek new resources. You work hard to find not just a solution, but the best solution.
You have exelled academically, but have a life outside the classroom. You want to become a leader, and you want to mentor others as well.

Contact
For more information, please visit **carreers.lutron.com**. You may also contact us directly at:
Lutron Electronics Co., Inc.
Attn: College Relations
7200 Suter Road, Coopersburg, PA 18036

1. feladat:
Válaszoljon a kérdésekre az ismertető alapján

1. What qualifications are needed for becoming a systems engineer at Luton Ltd.?
2. What can connect technology with the customers in this field of industry?
3. What does the work of software developers involve at Lutron Ltd.?
4. What technologies are used for making product related applications?
5. How can these engineers help business life?
6. What does the project work involve?
7. What skills are needed for this position? (Mention at least 4 skills)
8. What is important in finding a solution?
9. How can you contact the company?
10. Where is the company based?

2. feladat
WRITE a letter of application

Letters of complaint (panaszlevelek)

1.

Customer Service Department
Dickens Electrical Ltd.
Harlow, Essex

97 Cuckoo Lane
Tunbridge, Kent
22 May 1996

Dear Sir/Madam

Last week I bought a pocket calculator at your branch in Cheltenhem. It seemed to work in the shop, but when I got home, I found that it was faulty. It adds and subtracts perfectly well, but it doesn't divide or multiply.
I took it back to your branch in Tunbridge, but they refused to exchange it, saying that I had to return it the branch where I bought it. This is imposssible because I do not live in Cheltenham.
Please, find enclosed the calculator, together with the receipt, which shows the price and the date of purchase. Also I enclose the manufacturer's guarantee.

I look forward to hearing from you.

Yours faithfully,
Richard Sketchley

Feladat: DIGITAL ALARM CLOCK
This product should reach you in perfect working order. If it does not, please return it to Electric Clocks Ltd., Huslow, Middlesex, proving where and when it was bought. We will be glad to exchange it or refund it.
You bought the clock at a branch of W.H. Samson in Oxford Street, London, last week. It said 'blue' on the box but it was pink. The alarm doesn't seem to work. You paid cash, and you did not keep the receipt.

WRITE a letter of complaint.

(Situation in the shop might help you)
Customer: Good morning. I'd like to speak to the manager.
Manager: I am the manager. How can I help you?
C: Oh, really? It's this radio. It doesn't work.
M: Did you buy it here?
C: Of course. Look, you switch it on and nothing happens.
M: Can I see the receipt? I need to know the exact date of purchase.
C: Sorry, I haven't found it, I must have thrown it away.
M: Have you got any other proof of purchase, the guarantee, for example.
C: Yes. It is in the box.
M: That is all right. Did you check the radio before you left the shop?
C: No. I expected it to work. It wasn't a cheap radio, it is a good make. I would like to change it or get the refund.
M: Let me look at it… can you see this little switch on the back?
C: Yes, I can.
M: It is on 'mains', and it should be on 'battery'. You should have read the instructions.

2.

Farm Equipment and Supplies Plc
Burrow Road, Newport
Gwent NP55 7EX
16 February 1996

Manor Farm
Bridgend, Mid Glamorgan SA 15
UK

Dear Sirs

Rubber Boots and Work Gloves

On 8 October 1995 I purchased from your company 7 pairs of Agri boots and 20 pairs of work gloves for myself and my farm operatives (Invoice No. 326/B95L). Prior to the transaction, you had informed us that, under normal working conditions, both the boots and the gloves were guaranteed for a period of six months.

However, only four months later, I find that these items are of an unsatisfactory standard for our working conditions.

Although we were assured by your representative that the gloves were suitable for heavy work, several have been ripped and **therefore/consequently** have had to be discarded. **In addition/Moreover**, the elastic wrist grip quickly becomes slack, resulting in the possible danger of the gloves falling off.

Consequently/therefore, more gloves have been discarded.

As for the rubber boots, **besides** being rather uncomfortable to wear, they **also** appear not to be properly waterproofed.

In spite of your claims and guarantees regarding these products, I feel that you have supplied goods which were falsely represented. Under these circumstances, I **therefore** believe that your company bears a responsibility to compensate for these unsatisfactory items, which are available for your inspection.

I would be grateful if you would inform me as soon as possible of the action you intend to take.

Yours faithfully,
Doug Giles

3.

Middlesex Suppliers
12 Pointer street
10 May 2006

Dear Mr Durrel,

The above consignment was delivered to our plant on August 8. It consisted of 15 boxes of digital measuring instruments.

On examining the cases we found that 3 cases had been badly damaged. They were marked FRAGILE but because of the nature of the damage to the goods the consignment appears to have been roughly handled.

Secondly, one instrument is missing from case No. 12.

We estimate the loss to be Ł50.000, therefore we are claiming compensation for that amount.

We must insist on more careful execution of our orders in the future.

Yours sincerely,
Yvette Smith
Logistical assistant

Letters of enquiry (érdeklődés)

1.

Mr Benjamin Boss
Audio Performance Inc.
680 Madison Ave
New York, NY 10017

Electronics Entertainment Ltd.
245 Court road
London Wc 2345, GB
21 May 2005

Dear Mr Boss

We saw your advertisement in 'Audio Life' magazine, and we are interested in your products. Our company was founded in 1983 and has got a proven track. The headquarters is based in London, but we have several subsidiaries throughout the country. Our main profile is producing and selling electronic equipment, mainly consumer electronics. Nowadays, the company is among the biggest ones in this field, and has got 900 employees altogether.

Educational institutes are our biggest partners, so we would like to place orders for your CD and DVD educational materials, especially for language and science learning purposes.
Would you please send us your price quotations for these goods, and also inform us whether it is possible to get discounts if we place a big order.
Could you let us know about the delivery time and the exact terms of payment? We would be grateful, if you could forward any other information you have about the products.
We look forward to hearing from you.

Yours sincerely,
Johanna Smith
Sales manager

2.

Insutech. Ltd.
The Docks XX
Liverpool, GB

Home Furbishing Ltd.
Bristol, GB
13 March 2006

Dear Sirs

Our company has got the intention to widen the assortment of insulation materials and roof tiles offered by us. That is why we have decided to approach the principal manufacturers and select the best products available at the most competitive prices.
We would be obliged if you sent us details of various types of roof tiles and insulation materials that you have in production at the moment. Please send us your price list and also inform us about the discount prices that you could give us for bulk order.
As soon as we get the catalogue, we will contact you to arrange a visit to your warehouse in order to inspect the goods.
If the prices and the quality meet our requirements we will place our orders.
We would appreciate a prompt reply.

Yours faithfully,
Brian Smith
Purchase manager

Orders (megrendelések)

1.

Home Furbishing Ltd.
23 Brunsgatan Gate
Bristol TV, GB

HungaroHome Kft.
34 Ceglédi Út
1290 Budapest

25 March 2006

Dear Sirs

We were impressed by the wide assortment of roof tiles and insulation materials you displayed on your stand at the recent International Fair in Budapest.
We are a large chain trading with roof tiles and insulation materials, and we are looking for manufacturers who would be able to supply us without delay. We would like to order on the base of the catalogue the following goods:
the newest 'insu-2006' material: 50 000m
the latest roof tiles: 25000 batches each of the colours that you produce

If you could supply the goods required, please accept this letter as an official order. Payment will be made on any of the basis which is acceptable to you. Would you please inform us about the suitable means of transport and the delivery time.
We hope you will be able to meet our requirements and we can make a long-term contract with you.

Yours faithfullJy,
David Janda
Director

2.

Conference Hall
Deák Tér 1-3
1514 Budapest

Renewable Energy Society
Middle European Branch
Vienna, Austria

4 May 2007

Dear Sirs

We have seen your advertisement on TV. According to this you are willing to hire your conference hall for international conferences.
Our section of the Renewable Energy Society would like to organise a conference on this topic concerning the latest research results and also discuss the problems.

Would you please inform us whether you can house a conference for 3 days in July from 23-26. The participants will be about 150 persons, all from the Middle and East European regions.
Also there will be a need for multi-media equipment and at least 4 interpreters of English-Russian, English-Serbian, English-Albanian and English-Croatian languages. During the day a buffet service would be useful for the guests. Could you arrange all these?

Could you send us the price of hiring the Conference Hall as soon as possible, so that we can start arranging the whole process.
We look forward to your quick answer.
Yours faithfully,
Michael Brunn
President

Expressions and phrases used in letters

1. Answering advertisements, inquires

- Your name was given to us by … (the Hungarian Chamber of Commerce etc.) …
- The British Embassy in … has advised us to get in touch with you concerning …
- We have seen your advertisement in … (The Overseas Journal etc.), and would be glad to have price lists and catalogues of your products.
- Referring to your advertisement in … (The Export Times etc.) we would be pleased to …
- Your advertisement in this month's issue of … (The Import Buyer etc.) interests us.

Prices:

- Please send us your catalogue and price list of …
- Please let us have your prices for …
- We look forward to a favourable price quotation from you.
- Will you please quote (the prices) for the following items:

Samples

- Will you please send us samples of …
- Please let us know whether you are able to supply from stock (raktár).
- We would welcome your pattern-book.

2. Offers

- We thank you for your letter of yesterday enquiring about …
- We welcome/appreciate your interest in our products..
- We are ready to supply you with …
- We have pleasure in sending you our latest catalogue.
- We have pleasure in offering you the following goods:

Asking for instructions:

- If you accept our quotation, please contact us as soon as possible.
- Your reply by return would be appreciated.
- If our proposal is acceptable to you, please confirm by return.

3. Complaints

- You have supplied goods below the standard we expected from your samples.
- The delivered goods are not up to samples.
- Unfortunately, we find you have sent us the wrong goods.
- Unfortunately, you have not sent us the goods we ordered. The following items are missing:

Replies to complaints

- We are very sorry to receive your complaint that the … (material etc.) you received was not of the quality you expected.
- We have been supplying the same … (material etc.) for some time and have had no complaints about it so far.
- We regret the inconvenience we caused you.
- We greatly regret the mistake we commited, and assure you it will not happen in the future again.
- We are extremely sorry about this delay, which was due to circumstances beyond our control.

Other useful expressions:

We are satisfied with
We are a Hungarian company selling …
Complaint about, to complain about sg.
High quality products
Terms of payments
Conditions (for payment, transport, delivery)
Favourable conditions
Delivery date
To meet the delivery date
To meet the expectations
To ask for a discount on a large order
Competitive (market, price)
To make an offer
To place an order
To arrange delivery
Shipment = transport
Delivery by road, rail, sea, plane
Make a (10) % discount on the original prices
Above mentioned facts
Below mentioned conditions
To save the expenses
To settle the bill/matter
To purchase at a reduced price

Kifejezések megrendelő levelekhez

elhalasztani a rendelést:	postpone an order
rossz megrendelés:	wrong order
elfogadható feltételek mellett:	under acceptable conditions
biztosítást kötni:	arrange an insurrance
kölcsönösen kifizetődő:	mutually benefical
magas áron:	at high price
kedvező áron:	at bargain price
gyors ügyintézés:	quick arrangement
részletes tájékoztatás vmiről:	detailed information about
készpénzfizetés:	pay in cash
hivtatkozással vmire:	with reference to
igényelt mennyiség:	required quantity
külön engedmélny:	special trade discount
ajánlott ár:	quoted price
ismételt meghívás:	repeated invitation
kapcsolatba lépni valakivel:	get in touch with
amint lehet:	as soon as possible
megvitatni az ügyet:	discuss the matter
kapcsolatok kibővítése:	extension of relations
felbecsült kár:	estimated loss
díjszabás:	charge

szállítás:	transport
szállítmányozó cég:	shipping company
árlista:	price list
minta:	sample
azonnali szállítás:	immediate/prompt delivery
további részletek:	further details
fizetési feltételek:	terms of payment
mennyiség:	quantity
minőség:	quality
raktár:	stock/store/warehouse
mielőbbi:	as soon as (possible)
tájékoztatás:	information (no plural)
előre is:	in advance
méltányol/értékel:	appreciate
csekk:	cheque
kínálat:	supply
kereslet: d	emand
kereskedelem:	trade
előre megbeszélt találkozó:	appointment
elvárni:	expect
bocsánatkérés:	apology
képviselő:	representative
megrendelni vmit:	place an order for sg
feltétel:	condition
érdeklődni vmi iránt:	enquire about
mellékel/csatol:	enclose
katalógus:	catalogue/ brochure
eladás/árusítás:	sale
kérdéses árú:	goods in question
nagy tételben való vásárlás:	bulk purchase
örömmel/alig vár:	look forward to +ing
csomagolási lista:	packing list
szerződés:	contract.
2 napon belüli szállítás:	shipment within 2 days
teljesteni a szerződést:	fulfill the contract
kifizetni a számlát:	clear the account
megfontol/fontolóra vesz:	consider
bemutató:	display
tudomására hoz:	let sy.know about sg.
időközben/amíg:	meanwhile
azonnal/rögtön:	in no time
kereskedelmi igazgató:	Sales Manager
képviselni:	represent
vezető:	executive
azonnal/amint:	immediately
várakoztatni:	keep sy. waiting
hiba:	fault/error
el van foglalva:	be engaged (in)
gondol/feltételez:	suppose
időpontot megbeszélni:	make an appointment

visszaigazol:	to confirm
a biztonság kedvéért:	be on the safe side
összezavarni:	confuse
különféle/változatos:	various
nem megfelelő:	inconvenient
tapintatos(an):	tactful(ly)
rendeklezésre álló*:*	be available
indokol/magyaráz:	explain
körülmény/állapot/helzet:	circumstances
elintézni/megszervezni:	arrange
válasz/felelet:	response
javaslat/tanács:	suggestion
vele jár/kísér:	accompany
bejelent/közöl:	announce
bevezet/mutat:	introduce
fiókiroda:	branch office
kielégíti az igényeket :	statisfy the demand
pontos(an):	exact(ly)
sürgős(en):	urgent (ly)
jelentőség/fontosság:	importance
lehetséges:	potential
hamarosan/nemsokára:	shortly
menetrendszerű:	scheduled
elfogadható vki számára:	acceptable for
venni/vásárol:	purchase / buy
hálás(an): g	rateful(ly)
amilyen gyorsan csak lehet:	as early as possible
a jövőben/ezután:	in the future
… számú cikk:	item No…
örömmel:	with pleasure
kérés szerint:	as requested
kezdő/kezdeti:	initial
elégedett:	statisfied
életbiztostás:	life assurance
alkatrész:	fitting
árut kísérő számla:	invoice
azonban:	however
következő:	following
mellékelten megküld:	find enclosed
nagy számú:	large number
rendelés nagysága:	size of the order
ésszerű:	reasonable
úgy gondoljuk:	we feel that
előállítási nehézségek:	production difficulties
időben megérkezik:	arrive in time
tapasztalatot szerezni:	gain experience (in)
kiállítást szervezni:	organize an exhibition
megfelelő vkinek:	suit sb.
együttműködés:	co-operation
ügynökség:	agency

ebből kifolyólag:	because of this / consequently
kereslet vmi iránt:	demand for
6 hét múlva:	in 6 weeks
megbírkózni a nehézségekkel:	cope with difficulties
melléklet:	enclosure
nehéznek tűnik:	it seems to be difficult
hivatalos visszaigazolás:	offical confirmation
kölcsönösen kifizetődő/gyümölcsöző együttműködés:	mutually benefical cooperation
érdeklődő levél:	enquiry letter/ letter of enquiry
hálásak vagyunk:	we are grateful for..

További levelek (gyakorlásra)

1. Ön (Johanna/John Smith) egy szórakoztató elektronikai cég (Electronics Entertainment Ltd., 245 Court Road, London WC 2) beszerzési vezetője, és importálni szeretne speciális CD lejátszókat a nyelvtanulók számára. Egy szakmai lapban látta egy amerikai cég hírdetését (Audio Performance Inc., 680 Madison Ave, New York, NY 10017). Írjon levelet a kereskedelmi igazgatónak (Benjamin Boss) 140-160 szóban a következő szempontok figyelembevételével:

- Price quotations
- Terms of sale and payment
- Discount policy
- Delivery shedule

2. Egy nemzetközi, közép-európai országokat is tömörítő termeltető és forgalmazó cég alkalmazottjaként (sales manager) már a harmadik évet tölti Lengyelországban. Írjon levelet 140-160 szóban a cég holland főnökének (general manager) a munkakörülményekkel és az előléptetéssel kapcsolatos problémáiról a következő szempontok figyelembevételével:

In your letter you should complain about the

- the long working hours - sometimes at weekends
- you have not had a proper holiday so far
- no promotion, though it was promised
- good results, but no pay rise

3. Ön (Johanna/John Smith) egy vállalat (Farm Equipment Trading Company) biztonságtechikai intézkedéseiért és berendezéseiért felelős pozícióban (Safety manager) dolgozik. Írjon levelet 140-160 szóban egy biztosító cég (AG Intenational plc., Sussex, UK) ügyvezető igazgatójának, mivel új szerződét szeretne velük kötni, a következő szempontok figyelembevételével:

In your letter you should ask about the best type of insurance package that can help to protect themselves against the risk of

- burglary and fire
- loss of valuable electronic equipment
- accidents when transporting

4. Ön (Johanna/John Smith) egy nemzetközi szakkönyveket kiadó vállalatnál (West Publishing House, 1116 Budapest Kis-Nagy Elemér utca 24), informatikusként dolgozik. Kocsival jár a munkahelyre, és újabban nagyon zsúfolt a parkoló, és a parkolás 20-30 percet

is igénybe vesz. Írjon az amerikai állampolgárságú igazgatónak, Brian Briggs) 140-160 szóban erről a helyzetről, továbbá a kellemetlen következményekről az alább felsorolt szempontok figyelembevételével:

In your letter you should write about the

- Time-consuming effort for finding parking space
- Bad results:
  - being late for work
  - supervisor giving hard time to you deducting pay from your salary

5. Ön (Szabó Márta/Márk) egy magyarországi mérőműszereket gyártó vállalat (Electric Meters Ltd., Győr, Kisfaludy u. 22) termelési igazgatójaként dolgozik, és egy új üzemet szeretnének alapítani Katowice-ben, Lengyelo.-ban, Írjon a helyi befektetési és fejlesztési igazgatóságnak (Development and Investment Bureau, 495 Brankova, Katowice 6700, Poland) és kérjen információt (140-160 szóban) a következő szempontok figyelembevételével:

In your letter you should mention :

- Why you would like to invest there,
- What kind of manufacturing plant you want to build,
- What kind of jobs you offer,
- What working conditions you will ensure

6. Ön (Nagy Matild/Mátyás) egy magyarországi műanyag feldolgozó cég (tetszőleges megnevezés) ügyvezető igazgatója mellett asszisztensként dolgozik. Egy lengyelországi cég (Polymer Ltd. Katowice, Poland) közös vállalatot szeretne Önökkel létrehozni, mivel profiljuk hasonló és részben a termékkör kiszélesítésére is lehetőség lenne. Levélben kérjen részletes információt a cégtől 140-160 szóban a következő szempontok figyelembevételével:

In your letter you should express:

- Why you are interested in the joint-venture

Ask them about the

- capital they would like to invest ,
- their products,
- the number of jobs offered

7. Önt (Kis Gabriella/Gábor) cége váratlanul egyik külföldi leányvállalatához (Susuki Ltd., Brno, Czech Republic) helyezi néhány hónapra, hogy tanácsokkal (termelésre vonatkozó, műszaki megoldások stb.) segítse működésüket. Írjon a cég vezetőjének és kérjen információt a következő szempontok figyelembevételével:

In your letter you should ask about

- the department you will be working,
- the collegues you will be working with
- the working conditions,
- the accommodation and eating facilities

8. Ön egy természetbarát csomagolóeszközöket gyártó cég termelési vezetője. Sajnos, a több napi esőzés és vihar kárt okozott a raktárukban és nem tudják a megrendelt árukat időre kiszállítani. Levélben informálja a megrendelőt (Tools Manufacturing Holding, 1113 Budapest, Kisalbert u. 32) a helyzetről (140-160 szóban) a következő szempontok figyelembevételével:

In your letter you should tell him/her about

- the situation
- the late delivery date
- the new delivery date
- ask for his/her agreement

9. Vállakozásának számítógép szaküzlete van, ahol számítógépeket, nyomtatókat és számítógép alkatrészeket forgalmaz. Sajnos problémái akadtak az üzletmenettel kapcsolatosan és veszteségesen zárta az évet. Kérjen tanácsot egy marketing szakembertől:

- how to solve: sales problems
- and pricing,
- whether to sell other products (what kind of products?),
- possibly closing ?

10. Cége számára 50 db digitalis mérőeszközt vásárolt. Az áru szállítás közben megsérült, írjon reklamáló levelet a szállítmányozónak.

- introduction
- complaint
- request
- polite ending

TOVÁBBI GYAKORLÓ LEVÉLÍRÁSI TÉMÁK

11. Egy modern és kényelmes fából készült bútorokat tervező, gyártó és forgalmazó cégnél dolgozik műszaki vezetőként (New Art Furniture Ltd.). Új faipari gépeket szeretne rendelni egy angliai cégtől (Wood-Technology Ltd. 102-103 Penny Lane, Liverpool, UK). Mutassa be a céget, majd a prospektusukból rendelje meg a kiválasztott gépeket (gyalu, fűrész stb). Érdelkődjön a szállítási és a fizetési feltételekről.

12. Ön egy nemzetközi számítógépeket gyártó vállalat magyarországi összeszerelő üzemében dolgozik műszaki vezetőként. Írjon a vállalat központjába, mivel az alkatrészek szállítása késik. Sürgesse meg a megrendelést, kérje, hogy a leggyorsabb logisztikai szállítókat vegyék igénybe, mert különben a gyár nem tudja teljesíteni a megrendeléseket, és komoly vesztesége keletkezhet a cégnek. Esetleg a megrendelőket is elveszíthetik.

13. Ön egy nemzetközi bank magyarországi egységénél (affiliate) dolgozik rendszer gazdaként (system engineer). Kérje a külföldi központot, hogy várároljon és küldjön új számítógépeket, mivel a számítógépes állomány elavult és cserére van szükség (kis kapacitás, lassúak stb). Közölje a kívánatos specifikációkat is.

MEGOLDÁSOK

MŰSZAKI TEMATIKA TANANYAG

Dream cars

1.

Year	**Manufacturer**	**Dream car**	**Features**
1951	**GM**	LeSabre	1 small diameter wheels
			2 (B) **wrap-around windows**
			3 (C) **rain activated convertible top/hydraulic jack**
(D) **1959**	General Motors	Cadillac Cyclone	1 (E) **huge tail fins**
			2 radar warning device
1961	Ford	(F) **Gyron**	1 infrared camera
			2 (G) **TV camera**
			3 (H) **miniature video screen**
			4 computer-controlled guidance system
1983	General Motors	Buick (I) **Questor**	1 laser key for doors
			2 (J**) flat screen**
			3 (K) **anti-theft system/automatic height adjustment/TV monitors**
1997	(L) **Volkswagen**	Golf	(M**) engine switching off automatically**
	Ford		Orbital 2-stroke engine
	Toyota		(N) **more carbon fibres in the engine**

2. a. many years; b. wrap-around windows etc. c./d./e. own ideas

3.

Verb form	**Other form**	**Verb form**	**Other form**
to manufacture	**manufacturer**	to convert	**convertible**
to **warn**	warning	to feature	**feature**
to **produce**	production	to jack up	**jack**
to build	**built**	to **compute**	computer

Early development of the automobile
1.

Year	Name	Event	Country
1769	**James Watt**	improved the steam engine	Great Britain
1771	Cugnot	**military steam tractor**	**France**
1804	**Richard Trevithic**	1st public railway	**Great Britain**
1839	**Robert Davidson**	1st electric vehicle	**Scotland**
1858	**Lenoir**	**'explosive engine'**	France
1886	**Karl Benz**	1st petrol driven vehicle	**Germany**
1899	**Stanley brothers**	built 200 cars in one year	USA
1903	Wright Brothers	**car engine into an aircraft**	**USA**
1926	**Henry Ford**	end of production T-ford	**USA**
1938	Detroit El.	end of production of **electric cars**	**USA**

2. Which words in the text tell you that…

- it lasted *a very long time* before the automobile was discovered? **countless centuries**
- James Watt's invention *was better* than the others? **had an enormous effect on**
- Cugnot's tractor *was finished* in 1771? **was completed**
- *many people had heard* about George Stephenson? **famous**
- *it is certain* that the steam engine played an important role in the industrial revolution? **there is no doubt**
- it is surprising that the Stanley Bros produced 200 cars *in only one year*? **already**
- the 'Stanley Rocket' *just did not reach* 200 km/h? **almost**
- Robert Davidson's invention was *very simple*? **primitive**
- batteries *can be used more than once* since 1865? **rechargeable**

3. Use the information in the table of speed records to write down complete sentences:

Example: In 1964 D. Campbell set the speed record on land at 648 km/h in his turbine driven Bluebird near Lake Eyre in Australia.

Year	Propulsion	Name	Driver	Speed	Place
1964	turbine, wheel drive	Bluebird	D.Campbell	648 km/h	Lake Eyre, Australia
1991	piston engine	Speed-o-motive	Al Teague	696 km/h	Bonneville, UTAH, USA
1970	Rocket engine	Blue Flame	G. Gabelich	1001 Km/h	Bonneville, UTAH, USA
1983	Jet engine	Thrust 2	R.Noble	1019 Km/h	Black Rock Desert, USA

In 1991 Al Teague **set the speed record** on land **at** 696 km/h **in his piston engine driven** Speed-o-motive near Bonneville, UTAH, USA.
In 1970 Gabelich set the speed record on land at 1001 km/h in his rocket-engine driven Blue Flame near Bonneville, UTAH, USA.
etc.

Tunelling

Answers to questions

1. **Babylonia pedestrian tunnel**
2. **Marseille shipping tunnel**
3. **London Metro railway tunnel**
4. **San Francisco road tunnel**
5. **Hokaido railway tunnel**
6. **Moscow metro railway tunnel**
7. **London Metro railway**
8. **Hokaido railway tunnel**

3.

Verb	**Noun**	**Verb**	**Noun**
develop	development	construct	**construction**
apply	**application**	replace	**replacement**
begin	**beginning**	**excavate**	excavation
improve	**improvement**	**risk**	risk
transport	**transport/ation**	tunnel	**tunnel**

From telegraph to videophone

1.

Date	**Principle of transfer of information**
490 BC	**Flags, signposts, mirrors**
1794 AD	**Semaphore stations using signposts (from Lille to Paris)**
1837	First telegraph line near Munich
1851	**telegraph connection (between Calais and Dover)**
1876	Bell applies for a patent on his 'telephone'
1877	**Bell's telephone demonstrated**
1950s	First durable cable between GB and the USA
20th century	'telegration' and 'telecommunications' have become passwords for modern society

Rockets

1.
Chronological order: E, A, F, D, H, G, B, C,
2.

- **to shoot a lifeline to a ship**
- **ejection seat: a rocket shoots a pilot in his seat clear from the plane before the parachute deploys**
- **propelled by a charcoal gunpowder and propelled by liquid**
- **every particle of matter attracts every other particle with a force**
- **the range of rockets increased**

3.

1. since
2. from
3. by
4. down
5. in
6. of
7. by
8. with
9. on
10. of

Two types of engines

1.

Part	**Two-stroke engine**	**Four-stroke engine**
spark plug	+	+
fuel tank	+	+
fuel pump	-	+
inlet valve	-	+
exhaust valve	-	+
camshaft	-	+
piston	+	+
piston rings	+	+
oil pump	-	+

2
…., otherwise **it is closed**
… the combustion chamber **is compressed,** …the pressure **increases**
… this must be the **compression** stroke
… has **2-2** intake and exhaust valves per cylinder
… in other types **fuel, too**
… the 2-stroke engine produces power stroke **every revolution of the crankshaft**
Unlike the **4**-stroke engine…, the **2**-stroke engine doesn't have
Both **4-stroke and 2-stroke …**
… emissions of **2-stroke** engines …than **4-stroke** engines
… need **valves**

Micros and chips

1.
1. c 2. d 3. e 4. b 5. a

Part	Function
Computers	**to design circuits for chips**
Photographic process	**to place the circuit design on the chips**
A furnace	**to put slices of silicon**
A diamond saw	to cut the chip into individual chips
Protective cases	to protect the perfect chip

3.Flowchart: purifying sand- making silicon- silicon crystal is shaped into rods – they are cut into slices- producing chips

The information superhighway

1.

1.a
2. c
3. b
4. b
5. a

2.
…, which is made of copper
…a cable, which consists of strands of glass
… a cable, which transports energy in the form of light
… a cable, which can be 16,000 km long.
… a technique, in which various signals are put behind each other in the same strand of glass.

3.

	OFC	Copper cables
Loss of energy	++	
Size	++	+
Weight	++	--
Ease	++	-+
Quality	++	-+
Equipment	++	--
Capacity	++	-+
Price	++	--

Hovercraft and other unconventional ships

1.
surfboard – very little resistance
speed-boat – small resistance
hydrofoil – faster than conventioanl ships
jetfoil – faster, more stable than hydrofoil

2.
to break the ice; to stop illegal drug runners, firefighting etc.

SZÖVEGÉRTÉSI FELADATOK

Multili1ingual Internet… 1 F, 2 H, 3 C, 4 I, 5 E, 6 G, 7 A, 8, 9 igaz, 10 hamis

Tandberg educational IS-10…1 C, 2 B, 3 K, 4 D, 5 H, 6 J, 7 F, 8 G, 9 E, 10 L, 11. igaz 12. hamis, 13. hamis, 14. igaz, 15. igaz

Telindus…1. HRP Hungary Kft, 2. GCS, 3. Telindus Hungary Kft, 4. network security, 5. network video surveillance, 6. LAN/WAN, 7. replacing old analogue Closed Circuit TV systems, 8. using credit cards to log on to the global network, 9. hamis, 10. igaz

Mobile market…1.the developing world, 2. voiced-based messaging services, 3. China , 4. Latin America, 5. India, 6.South East Asia, 7. building sites in N. America, 8. Slower, 9. Competitors, 10. Extras, 11-13. mobile tv, music players, cameras (vagy Bluetooth), 14. revenue split with recording companies, 15. price point for downloads

Transport and Communications in Britain…1-C, 2-H, 3-D, 4-I, 5-E, 6-J, 7-B, 8-F, 9-G 10. hamis, 11. hamis, 12. igaz, 13. igaz, 14. igaz, 15. igaz

Briggs & Stratton Engine Lawn Mower …1-G, 2-C, 3-B, 4-D, 5-F, 6-E
7 I 8 J 9- clean and dry area, 10- at Briggs & Stratton dealers

Lost railway trucks…1. tracing technology, 2. Transport data Co., 3. delay of trains, 4. railway managers told him, 5. the wagon is on schedule, 6. it is loaded or unloaded, 7. the door is open, 8. danger of shock, 9. central computer, 10. transmitter unit, 11. 50 % of rail freight crosses border, 12. central computer sends SMS, 13. controls the timetable, 14. checks the door opening sensor, 15. sends confirmation, 16. batteries, 17. prevent thefts, 18. new freight customers will come

German Engineering industry… 1.Gesamt metall, 2. 3,5 million, 3. examples for other industry workers, 5. 35-40 hours a week, 6. the production, 7. failed, 8. the union movement, 9. 4%, 10.2%, 11. 12 monhths, 12. 15 months,

Future fuel…1. CO2 emissions, 2. depletion of fuel resources, 3. a (promising) alternative, 4. greenhouse gasses, 5. hydrogen, 6. Toyota Prius, 7. weight, 8. environmental concerns, 9. energy intensive, 10. vegetables, 11. hybrid car

The British way to give Berlin …1. Mr. Grimshaw, 2. Sir Foster, 3. R. Piano, 4. Alsop & Stromer, 5. Sauerbruch & Hutton, 6. in an innovative way, 7. in a sober/tamer form, 8. steel and glass, 9. not unique / world alike, 10. parties, fashion shows, film sets, 11. because of glass walls, 12. two, 13. exciting because of the architectural sights /architecture

Ice hotel…1. 4000 sq meters, 2. 37 rooms, 3. The guests can check in with PDAs, 4. store orders in the Ice-bar, 5. use/accept credit cards, 6. send e-mails, 7. make phone calls, 8. tractors, special ice saws, 9. workers, interior designers, artists, 10-11. hamis, 12-13. igaz

Iwood hopes for …1.starch mixed with yeast &water, 2. put it into oven, 3. joint-research project with School of Engineering, 4. support of a microbiologist, 5. finding an investor and together they founded Iwood, 6. igaz, 7.igaz, 8. hamis, 9. hamis. 10. hamis

New biochips …1. semiconductor chips/industry, 2. to diagnose diseases earlier, 3. they hold thousands of gene fragments, 4. personal computers, 5. Flow Thru chip, 6. made of silicon not glass, 7. needs little additional investment/use the existing manufacturing technology, 8. because it could not use the manufacturing of the conventional chips, 9. igaz, 10. hamis, 11. igaz

Gas turbine…1. the ceramic coating on gas turbines, 2. more efficient and costless, 3. the same material as of TV screen, 4. to raise efficiency, 5. plant's reliability, 6. the life of turbines, 7. safety of turbines, 8. reduces risk of plant outages, 9. hamis, 10. igaz

NECAR II… 1. hamis, 2. hamis, 3. hamis, 4. igaz, 5. igaz, 6. igaz, 7. merging in fuel sells, 8. its safety/safety of hydrogen tank, 9. zink-air batteries, 10. computers

Internet-accessible mobile-phones…1. hamis, 2. hamis, 3. igaz, 4. hamis, 5. PCs and mobile phones, 6. the stored data will be up-to- hard drive, 7. Low bandwith connection speeds, 8. a representation of the PC hard drive, 9. fax machine or Xerox document centre, 10. Banking and investing

A bit green… 1 E, 2 A, 3 D, 4 C, 5 F, 6 G, 7. hamis, 8. igaz, 9. igaz, 10. hamis

Protecting our environment… 1 C, 2 E, 3 B, 4 D, 5 igaz, 6 hamis, 7 hamis, 8, 9, 10 igaz

Can the Earth survive… 1. to protect fragile ecosystem, 2. the area is becoming deforested, 3. if tourism is done in a right way, 4. Being forced by developers, 5. set up accreditation process/to prove they are ecofriendly, 6. conference to celebrate intern'l year of ecotourism, 7. NGOs, 8. anti-globalisation protesters, 9. creating nature reserve in Yucatan, 10. Canadian Tourist Commission

Britons' in favour of windfarms…1, 5 ellenez, 2, 3, 4, 6 támogat, 7. 2x1000, 8. unstable, unpredictable, 9. they try to incorporate turbines, 10. the names will go on new turbines, 11. they are impressive looking

Pollution: a life and …1 F, 2 B, 3 D, 4 E, 5. it does not respect political borders, 6. phthalates, 7. nonyphenol, 8. DDT, 9. it would be depressed, 10. outdoor, 11. indoor

A question of survival…1 G, 2 A, 3 C, 4 B, 5 F, 6. igaz, 7. hamis, 8. igaz, 9. hamis, 10. igaz, 11. hamis