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Учебное пособие

по дисциплине: «Иностранный язык (английский язык)»

по специальности «Прикладная информатика ( по отраслям)»

Разработал преподаватель

иностранных языков

Кузнецова С.Г.

ст. Брюховецкая

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ С.Г. Кузнецова

АННОТАЦИЯ

Данное методическое пособие предназначено для преподавателей иностранных языков и преподавателей других дисциплин , а также для всех, кто интересуется компьютерной техникой.

При подготовке текстов и упражнений использовались оригинальные специальные издания.

Автор: Кузнецова С.Г. преподаватель иностранных языков

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**Введение**

В настоящее время существенно изменился социокультурный контекст изучения иностранного языка в России. Значительно возросли их образовательная и самообразовательная функция, профессиональная значимость на рынке труда в целом. Развитие и становление мелкого и крупного бизнеса, развитие и укрепление международных связей в области автомобильного транспорта и ремонта автомобилей повлекло за собой появление новых понятий, терминов и привело к потребности в знании и владении техническим английским языком. Изучение английского языка служит одним из способов формирования экономического, профессионального мышления и воззрения человека.

Учебное пособие по английскому языку имеет практическую значимость. Целями написания учебного пособия являются: 1) недостаточное количество необходимого материала; 2) развитие навыков письменной речи; 3) развитие навыков правописания; 4) повышение качества обучения иностранному языку; 5) более организованная работа на занятиях; 6) активное усвоение изучаемого материала в профессиональной сфере деятельности, связанной с земельно-имущественными отношениями. В учебном пособии приведены разработки по 13 разделам, включая весь лексический материал. Эти разделы состоят из подразделов, каждый из которых представляет собой тематически завершенное целое. Практически все подразделы имеют единую структуру, что позволяет осуществить целенаправленное формирование языковых навыков и умений. Наличие теоретического материала по методике преподавания иностранным языком способствует успешному введению (изучению) и закреплению лексических единиц при работе со всеми видами деятельности (письмо, чтение, аудирование, говорение).

Учебное пособие построено на основных дидактических принципах: от

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простого к сложному, соблюдается принцип тематического отбора лекси-ческого материала, соответствующего специальности обучаемых, что способствует его активному усвоению и запоминанию. Достоинством учебного пособия является возможность его использования как на практическом занятии под руководством преподавателя, так и в ходе самостоятельной работы студента на консультациях или при работе с компьютером, т.к. имеется электронная версия. Студент должен изучить специфику иностранного языка, артикуляцию звуков, интонацию, особенности полного стиля произношения, характерные для сферы профессиональной деятельности; профессиональная лексика; понятие о сводных и устойчивых словосочетаниях, фразеологических единиц профессиональной терминологии; технику перевода (со словарем) профессионально ориентированных текстов; аудирование: понимание диалогической и монологической речи в профессиональной деятельности; виды текстовых произведений: аннотацию, реферат, тезисы, сообщение.

Данное учебное пособие позволяет успешно завершить курс изучения иностранного языка в связи с тем что имеется электронная версия, которая позволяет изучать учебный материал вне колледжа, и предоставить выполненное задание в электронном варианте.

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**Topic 1**

**Text Computers**

Computer is an electronic device that can receive a set of instructions called program and then carry out them. The modern world of high technology could not be possible without computers. Different types and sizes of computers find uses throughout our society. They are used for the storage and handling of data, secret governmental files, information about banking transactions and so on.

Computers have opened up a new era in manufacturing and they have enhanced modern communication systems. They are essential tools in almost every field of research, from constructing models of the universe to producing tomorrow's weather reports. Using of different databases and computer networks make available a great variety of information sources.

There are two main types of computers, analog and digital, although the term computer is often used to mean only the digital type, because this type of computer is widely used today. That is why I am going to tell you about digital computers.

Everything that a digital computer does is based on one operation: the ability to determine: on or off, high voltage or low voltage or — in the case of numbers — 0 or 1 or do-called binary code. The speed at which the computer performs this simple act is called computer speed. Computer speeds are measured in Hertz or cycles per second. A computer with a «clock speed» of 2000 MHz is a fairly representative microcomputer today. It is capable of executing 2000 million discrete operations per second. Nowadays microcomputers can perform from 800 to over 3000 million operations per second and supercomputers used in research and defense applications attain speeds of many billions of cycles per second.

Digital computer speed and calculating power are further enhanced by the amount of data handled during each cycle. Except two main types of computers, analog and digital there are eight generations of digital computers or processing units. The first generation was represented by processing unit Intel 8086.

The second generation central processing unit was represented by processing unit Intel 80286, used in IBM PC AT 286. The third generation is Intel 80386, used in IBM PC AT 386. The microprocessors of the fourth generation were used in computers IBM PC AT 486. There are also central processing units of the fifth generation, used in Intel Pentium 60 and Intel Pentium 66, central processing units of the sixth generation, used in computers Intel Pentium 75, 90,100 and 133. Few years ago appeared central processing units of seventh and eighth generations. They are much more powerful and can perform from 2000 to over 3000 million operations per second.

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**Questions:**

1. What is computer?  
2. What is the main purpose of all computers?  
3. Where are computers used?  
4. What is the index of computer speed?  
5. What speeds do modern computers have?  
6. How many generations of digital computer are there?  
7. What is the first generation processing unit?

**Vocabulary:**

electronic device — электронное устройство  
to receive — получать, принимать  
set of instructions — набор/свод инструкций  
to carry out — выполнять  
society — общество  
storage — хранение  
handling — обработка  
transaction — операция  
to enhance — повышать, увеличивать  
essential — существенный  
tool — инструмент, орудие  
network — сеть  
source — источник  
analog — аналоговый  
digital — цифровой  
ability — способность, возможность  
to determine — определять  
voltage — напряжение  
discrete operation — дискретное действие  
to perform — выполнять, осуществлять  
defense — оборона, защита  
to attain — достигать  
amount of data — объем данных  
except — за исключением, кроме  
processing unit — вычислительное устройство

Find the nouns and translate**.**

|  |  |
| --- | --- |
| 1. a) development | b) developing |
| c) developed | d) develop |
| 2. a) provide | b) providing |
| c) provision | d) provided |
| 3. a) attend | b) attention |
| c) attentive | d) attending |
| 4. a) knowledge | b) smaller |
| c) known | d) knows |
| 5. a) better | b) keep |
| c) keeper | d) kept |
| 6. a) finder | b) finding |
| c) finds | d) harder |
| c) built | d) builder |
| 8. a) behavior | b) therefore |
| c) until | d) think |

. Read each of these words show the part of speech. Translate them.

| **english** | **part of speach** |  | **Russian** |
| --- | --- | --- | --- |
| durability |  |  |  |
| stormy |  |  |  |
| indifferent |  |  |  |
| dwelling |  |  |  |
| appearence |  |  |  |
| influential |  |  |  |
| development |  |  |  |
| mainly |  |  |  |
| thickness |  |  |  |
| historic |  |  |  |
| reasonable |  |  |  |
| dangerous |  |  |  |
| movement |  |  |  |
| simplicity |  |  |  |
| irregular |  |  |  |

**Текст "Computers"**

Generally, any device that can perform numerical calculations, even an adding machine, may be called a computer but nowadays this term is used especially for digital computers. Computers that once weighed 30 tons now may weigh as little as 1.8 kilograms. Microchips and microprocessors have considerably reduced the cost of the electronic components required in a computer. Computers come in many sizes and shapes such as special-purpose, laptop, desktop, minicomputers, supercomputers.

Special-purpose computers can perform specific tasks and their operations are limited to the programmes built into their microchips. There computers are the basis for electronic calculators and can be found in thousands of electronic products, including digital watches and automobiles. Basically, these computers do the ordinary arithmetic operations such as addition, subtraction, multiplication and division.

General-purpose computers are much more powerful because they can accept new sets of instructions. The smallest fully functional computers are called laptop computers. Most of the general-purpose computers known as personal or desktop computers can perform almost 5 million operations per second.

Today's personal computers are know to be used for different purposes: for testing new theories or models that cannot be examined with experiments, as valuable educational tools due to various encyclopedias, dictionaries, educational programmes, in book-keeping, accounting and management. Proper application of computing equipment in different industries is likely to result in proper management, effective distribution of materials and resources, more efficient production and trade.

Minicomputers are high-speed computers that have greater data manipulating capabilities than personal computers do and that can be used simultaneously by many users. These machines are primarily used by larger businesses or by large research and university centers. The speed and power of supercomputers, the highest class of computers, are almost beyond comprehension, and their capabilities are continually being improved. The most complex of these machines can perform nearly 32 billion calculations per second and store 1 billion characters in memory at one time, and can do in one hour what a desktop computer would take 40 years to do. They are used commonly by government agencies and large research centers. Linking together networks of several small computer centers and programming them to use a common language has enabled engineers to create the supercomputer. The aim of this technology is to elaborate a machine that could perform a trillion calculations per second.

1. What are the main types of computers?

2. How do the computers differ in size and methods of their application?

3. What are the main trends in the development of the computer technology?

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Fill in the verbs in brackets. Use the Present Simple Tense.

1. (work) 1… at the main office.

2. (work) Mr Wilson … very hard.

3. (work) Almost everyone … very hard.

4. (work) We … from 9:00 a.m. to 5:00 p.m.

5. (have) Mr Wilson … a private office.

6. (write) Miss Peters … letters for me

7. (study) Mr Wilson … the reports.

8. (collect) Smith and Green … information.

Fill in the blanks with am, is or are.

1. We … working on the report right now.

2. I … looking around the office at this moment.

3. The people … listening to Mr Wilson carefully.

4. He … telling the people about our methods.

5. Someone … talking to Miss Stewart right now.

6. Everyone … working very hard right now.

7. Some people … studying important papers now.

8. Smith and Green … collecting information now.

9. The men … fixing the floor in the hall right now.

10. They … also making much noise at this moment.

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**"THE EARLY YEARS"**

Reading Analysis

**VOCABULARY LIST**

Verbs: anticipate, collaborate, devise, donate, emerge, foresee, intimidate,

market, thrive.

Nouns: application, capacity, components, entrepreneur, expertise, gadget, innovation, investment, potential, technology, venture, wizard, pioneer, integrated circuit, microprocessor, circuit, peripherals.

Adjectives/Participles: cumbersome, genuine, inevitable, makeshift, massive, muted, skeptical, state-of-the-art, user-friendly. Adverbials: passionately, technologically, thereby, whereas.

**TEXT 1. THE EARLY YEARS**

(1) Until the late 1970s, the computer was viewed as a massive machine that was useful to big business and big government but not to the general public. Computers were too cumbersome and expensive for private use, and most people were intimidated by them. As technology advanced, this was changed by a distinctive group of engineers and entrepreneurs who rushed to improve the designs of then current technology and to find ways to make the computer attractive to more people. Although these innovators of computer technology were very different from each other, they had a common enthusiasm for technical innovation and the capacity to foresee the potential of computers. This was a very competitive and stressful time, and the only people who succeeded were the ones who were able to combine extraordinary engineering expertise with progressive business skills and an ability to foresee the needs of the future.

(2) Much of this activity was centered in the Silicon Valley in northern California where the first computer-related company had located in 1955. That company attracted thousands of related businesses, and the area became known as the technological capital of the world. Between 1981 and 1986, more than 1000 new technology-oriented businesses started there. At the busiest times, five or more, new companies started in a single week. The Silicon Valley attracted many risk-takers and gave them an opportunity to thrive in an atmosphere where creativity was expected and rewarded.

(3) Robert Noyce was a risk-taker who was successful both as an engineer and as an entrepreneur. The son of an Iowa minister, he was informal, genuine, and methodical. Even when he was running one of the most successful businesses in the Silicon Valley, he dressed informally and his office was an open cubicle that looked like everyone else's. A graduate of the Massachusetts Institute of Technology (MIT), he started working for one of the first computer-related businesses in 1955. While working with these pioneers of computer engineering, he learned many things about computers and business management.

(4) As an engineer, he co-invented the integrated circuit, which was the basis

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for later computer design. This integrated circuit was less than an eighth of an inch square but had the same power as a transistor unit that was over 15 inches square or a vacuum tube Unit that was 6.5 feet square. As a businessman, Noyce co-founded Intel, one of the most successful companies in the Silicon Valley and the first company to introduce the microprocessor. The microprocessor chip became the heart of the computer, making it possible for a large computer system that once filled an entire room to be contained on a small chip that could be held in one's hand. The directors of Intel could not have anticipated the effects that the microprocessor would have on the world. It made possible the invention of the personal computer and eventually led to the birth of thousands of new businesses. Noyce's contributions to the development of the integrated circuit and the microprocessor earned him both wealth and fame before his death in 1990. In fact, many people consider his role to be one of the most significant in the Silicon Valley story.

(5) The two men who first introduced the personal computer (PC) to the marketplace had backgrounds unlike Robert Noyce's. They had neither prestigious university education nor experience in big business. Twenty-year-old Steven Jobs and twenty-four-year-old Stephen Wozniak were college' drop-outs who had collaborated on their first project as computer hobbiests in a local computer club. Built in the garage of Jobs's parents, this first personal computer utilized the technology of Noyce's integrated circuit. It was typewriter-sized, as powerful as a much larger computer, and inexpensive to build. To Wozniak the new machine was a gadget to share with other members of their computer club. To Jobs, however, it was a product with great marketing potential for homes and small businesses. To raise the $1300 needed to fill their first orders Jobs sold his Volkswagen bus and Wozniak sold his scientific calculator. Wozniak built and delivered the first order of 100 computers in ten days. Lacking funds, he was forced to use the least expensive materials, the fewest chips, and the most creative arrangement of components. Jobs and Wozniak soon had more orders than they could fill with their makeshift production line.

(6) Jobs and Wozniak brought different abilities to their venture: Wozniak was the technological wizard, and Jobs was the entrepreneur. Wozniak designed the first model, and Jobs devised its applications and attracted interest from investors and buyers. Wozniak once admitted that without Jobs he would never have considered selling the computer or known how to do it. "Steve didn't do one circuit, design or piece of code. He's not really been into computers, and to this day he has never gone through a computer manual. But it never crossed my mind to sell computers. It was Steve who said, 'Let's hold them up and sell a few.

(7) From the very beginning, Apple Computer had been sensitive to the needs of a general public that is intimidated by high technology. Jobs insisted that the computers be light, trim, and made in muted colors. He also insisted that the language used with the computers be "user-friendly" and that the operation be simple enough for the average person to learn in a few minutes. These features

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helped convince a skeptical public that the computer was practical for the home and small business. Jobs also introduced the idea of donating Apple Computers to thousands of California schools, thereby indirectly introducing his product into the homes of millions of students. Their second model, the Apple II, was the state-of-the-art PC in home and small business computers from 1977 to 1982. By 1983 the total company sales were almost $600 million, and it controlled 23 percent of the worldwide market in personal computers.

(8) As the computer industry began to reach into homes and small businesses around the world, the need for many new products for the personal computer began to emerge. Martin Alpert, the founder of Tecmar, Inc., was one of the first people to foresee this need. When IBM released its first personal computer in 1981, Alpert bought the first two models. He took them apart and worked twenty-four hours a day to find out how other products could be attached to them. After two weeks, he emerged with the first computer peripherals for the IBM PC, and he later became one of the most successful creators of personal computer peripherals. For example, he designed memory extenders that enabled the computer to store more information, and insert able boards that allowed people to use different keyboards while sharing the same printer. After 1981, Tecmar produced an average of one new product per week.

(9) Alpert had neither the technical training of Noyce nor the computer clubs of Jobs and Wozniak to encourage his interest in computer engineering. His parents were German refugees who worked in a factory and a bakery to pay for his college education. They insisted that he study medicine even though his interest was in electronics. Throughout medical school he studied electronics passionately but privately. He became a doctor, but practiced only part time while pursuing his preferred interest in electronics. His first electronics products were medical instruments that he built in his living room. His wife recognized the potential of his projects before he did, and enrolled in a graduate program in business management so she could run his electronics business successfully. Their annual sales reached $1 million, and they had 15 engineers working in their living room before they moved to a larger building in 1981. It wasn't until 1983 that Alpert stopped practicing medicine and gave his full attention to Tecmar. By 1984 Tecmar was valued at $150 million.

(10) Computer technology has opened a variety of opportunities for people who are creative risk-takers. Those who have been successful have been alert technologically, creatively, and financially. They have known when to use the help of other people and when to work alone. Whereas some have been immediately successful, others have gone unrewarded for their creative and financial investments; some failure is inevitable in an environment as competitive as the Silicon Valley. Rarely in history have so many people been so motivated to create. Many of them have been rewarded greatly with fame and fortune, and the world has benefited from this frenzy of innovation.

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**Find the ajectives in each of the line, translate.**

|  |  |
| --- | --- |
| 1. a) probably | b) property |
| c) probable | d) property |
| 2. a) suddenly | b) different |
| c) degree | d) during |
| 3. a) excellent | b) member |
| c) enough | d) explanation |
| 4. a) dangerous | b) denger |
| c) determine | d) discovery |
| 5. a) changes | b) consideration |
| c) consist | d) changeable |
| 6. a) decision | b) decide |
| c) decisive | d) divide |
| 7. a) possible | b) probably |
| c) opportunity | d) provide |
| 8. a) simplicity | b) shake |
| c) scientific | d) schedule |
| 9. a) production | b) productive |
| c) produce | d) provision |
| 10 a) attends | b) admission |
| c) achievement | d) attentive |

**Use the correct form – Present Simple or Present Continuous.**

1. Elephants (not eat) meat.

2. Men (not agree) on every subject.

3. He (visit) Aunt Mary for a few days at present.

4. He (go) to the pictures once a week. 12

5. He (not see) always a good film.

6. This evening he (not go) there.

7. Uncle George always (come) to dinner on Sundays.

8. He (meet) an old school friend instead.

9. He (not work) on Sundays of course

10. Now he is old and (stay) at home.

11. Look! A big white bird (sit) in our garden.

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**"Digital computers"**

There are two fundamentally different types of computers: analog and digital. The former type solver problems by using continuously changing data such as voltage. In current usage, the term "computer" usually refers to high-speed digital computers. These computers are playing an increasing role in all branches of the economy.

Digital computers based on manipulating discrete binary digits (1s and 0s). They are generally more effective than analog computers for four principal reasons: they are faster; they are not so susceptible to signal interference; they can transfer huge data bases more accurately; and their coded binary data are easier to store and retrieve than the analog signals.

For all their apparent complexity, digital computers are considered to be simple machines. Digital computers are able to recognize only two states in each of its millions of switches, "on" or "off", or high voltage or low voltage. By assigning binary numbers to there states, 1 for "on" and 0 for "off", and linking many switches together, a computer can represent any type of data from numbers to letters and musical notes. It is this process of recognizing signals that is known as digitization. The real power of a computer depends on the speed with which it checks switches per second. The more switches a computer checks in each cycle, the more data it can recognize at one time and the faster it can operate, each switch being called a binary digit or bit.

A digital computer is a complex system of four functionally different elements: 1) the central processing unit (CPU), 2) input devices, 3) memory-storage devices called disk drives, 4) output devices. These physical parts and all their physical components are called hardware.

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The power of computers greatly on the characteristics of memory-storage devices. Most digital computers store data both internally, in what is called main memory, and externally, on auxiliary storage units. As a computer processes data and instructions, it temporarily stores information internally on special memory microchips. Auxiliary storage units supplement the main memory when programmes are too large and they also offer a more reliable method for storing data. There exist different kinds of auxiliary storage devices, removable magnetic disks being the most widely used. They can store up to 100 megabytes of data on one disk, a byte being known as the basic unit of data storage.

Output devices let the user see the results of the computer's data processing. Being the most commonly used output device, the monitor accepts video signals from a computer and shows different kinds of information such as text, formulas and graphics on its screen. With the help of various printers information stored in one of the computer's memory systems can be easily printed on paper in a desired number of copies.

Programmes, also called software, are detailed sequences of instructions that

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direct the computer hardware to perform useful operations. Due to a computer's operating system hardware and software systems can work simultaneously. An operating system consists of a number of programmes coordinating operations, translating the data from different input and output devices, regulating data storage in memory, transferring tasks to different processors, and providing functions that help programmers to write software. In large corporations software is often written by groups of experienced programmers, each person focusing on a specific aspect of the total project. For this reason, scientific and industrial software sometimes costs much more than do the computers on which the programmes run.

**Fill in missing words and translate these sentences.**

1. He always … at 7 o’clock.

a) is getting up, b) has got up, c) gets up

2. Ann … to Paris in 1991.

a) has moved, b) moved, c) moves

3. We haven’t heard from him … months.

a) since, b) out , c) for

4. He goes to work … bus.

a) on, b) by, c) in

5. … we go tonight?

a) shall, b) will, c) have

6. You … cross the street when the light is red.

a) mustn’t, b) needn’t, can’

7. He is wearing … uniform.

a) -, b) an, c) a

8. Mark is as … as George.

a) taller, b) tall, c) the tallest 15

9. He … his car a month age.

a) bought, b) buys, c) has bought

10. Claire dances … than Sue.

a) better, b) well, c) the best

**Find and correct the mistakes.**

1. The policeman arrested the thieves.

2. “What are you?” – «Tom Smith”.

3. You like pizza?

4. I want being a teacher.

5. They play in the garden.

6. Mother is standing in the window.

7. He swims fastest than me.

8. They got married in 27th of December.

9. She didn’t finish her work yet.

10. She is taller of all.

**Текст "Prehistory"**

(1) Tools are any objects other than the parts of our own bodies that we use to help us do our work. Technology is nothing more than the use of tools. When you use a screwdriver, a hammer, or an axe, you are using technology just as much as when you use an automobile, a television set, or a computer.

(2) We tend to think of technology as a human invention. But the reverse is closer to the truth. Stone tools found along with fossils show that our ape-like ancestors were already putting technology to use. Anthropologists speculate that using tools may have helped these creatures evolve into human beings; in a tool-using society, manual dexterity and intelligence count for more than brute strength. The clever rather than the strong inherited the earth.

(3) Most of the tools we have invented have aided our bodies rather than our minds. These tools help us lift and move and cut and shape. Only quite recently, for the most part, have we developed tools to aid our minds as well.

(4) The tools of communication, from pencil and paper to television, are designed to serve our minds. These devices transmit information or preserve it, but the do no modify it in any way (If the information is modified, this is considered a defect rather than a virtue, as when a defective radio distorts the music we're trying to hear.)

(5) Our interest lies with machines that classify and modify information rather than merely transmitting it or preserving it. The machines that do this are the computers and the calculators, the so-called mind tools. The widespread use of machines for information processing is a modern development. But simple examples of information-processing machines can be traced back to ancient times. The following are some of the more important forerunners of the computer.

(6) The Abacus. The abacus is the counting frame that was the most widely used device for doing arithmetic in ancient times and whose use persisted into modern times in the Orient. Early versions of the abacus consisted of a board with grooves I which pebbles could slide. The Latin word for pebbles is calculus, from which we get the words abacus and calculate.

(7) Mechanical Calculators. In the seventeenth century, calculators more sophisticated than the abacus began to appear. Although a number of people contributed to their development, Blaise Pascal (French mathematician and philosopher) and Wilhelm von Leibniz (German mathematician, philosopher, and diplomat) usually are singled out as pioneers. The calculators Pascal and Leibniz built were unreliable, since the mechanical technology of the time was not capable of manufacturing the parts with sufficient precision. As manufacturing techniques improved, mechanical calculators eventually were perfected; they were used widely until they were replaced by electronic calculators in recent times.

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(8) The Jacquard Loom. Until modern times, most information-processing machines were designed to do arithmetic. An outstanding exception, however, was Jacquard's automated loom, a machine designed not for hard figures but beautiful patterns. A Jacquard loom weaves cloth containing a decorative patterns; the woven pattern is controlled by punched cards. Changing the punched cards changes the pattern the loom weaves. Jacquard loom came into widespread use in the early nineteenth century, and their descendants are still used today. The Jacquard loom is the ancestor not only of modern automated machine tools but of the player piano as well.

EXERCISES

I. True or false

1. The strong will inherit the earth.

2. In the beginning was the abacus.

3. The forerunner of the computer is the mechanical calculator.

4. The punched card is still very important for computers today.

5. The calculators Pascal and Leibniz built were reliable.

6. The mechanical calculator could multiply and divide as well as add and subtract.

7. Babbage invented the Jacquard loom.

8. "Beware of programmers who carry screwdrivers".

II. Give synonyms to:

To aid, strength, to speculate, nothing more than, to lift, ancestors, to manufacture, to single out, precision, to perfect, in recent times, pattern, to develop, information-processing machine.

III. Give antonyms to:

Descendants, automated machine, exception, virtue, intelligence, to transmit, reliable, sufficient, in the early 10th century, in modern times.

Pre-reading Discussion

1. What are tools?

2. What was the first tool?

3. What helped ape-like creatures evolve into human beings?

4. What is technology?

5. What tools of communication do you know?

6. What machines classify and modify information?

7. What do you know about Babbage, Pascal, Leibniz, and Jacquard?

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**Текст "THE FIRST HACKERS"**

(1) The first "hackers" were students at the Massachusetts Institute of Technology (MIT) who belonged to the TMRC (Tech Model Railroad Club). Some of the members really built model trains. But many were more interested in the wires and circuits underneath the track platform. Spending hours at TMRC creating better circuitry was called "a mere hack." Those members who were interested in creating innovative, stylistic, and technically clever circuits called themselves (with pride) hackers.

(2) During the spring of 1959, a new course was offered at MIT, a freshman programming class. Soon the hackers of the railroad club were spending days, hours, and nights hacking away at their computer, an IBM 704. Instead of creating a better circuit, their hack became creating faster, more efficient program - with the least

number of lines of code. Eventually they formed a group and created the first set of hacker's rules, called the Hacker's Ethic.

(3) Steven Levy, in his book Hackers, presented the rules:

Rule 1: Access to computers - and anything, which might teach you, something about the way the world works - should be unlimited and total.

Rule 2: All information should be free.

Rule 3: Mistrust authority - promote decentralization.

Rule 4: Hackers should be judged by their hacking, not bogus criteria such as degrees, race, or position.

Rule 5: You can create art and beauty on a computer.

Rule 6: Computers can change your life for the better.

(4) These rules made programming at MIT's Artificial Intelligence Laboratory a challenging, all encompassing endeavor. Just for the exhilaration of programming, students in the Al Lab would write a new program to perform even the smallest tasks. The program would be made available to others who would try to perform the same task with fewer instructions. The act of making the computer work more elegantly was, to a bonafide hacker, awe-inspiring.

(5) Hackers were given free reign on the computer by two AI Lab professors, "Uncle" John McCarthy and Marvin Minsky, who realized that hacking created new insights. Over the years, the AI Lab created many innovations: LIFE, a game about survival; LISP, a new kind of programming language; the first computer chess game; The CAVE, the first computer adventure; and SPACEWAR, the first video game.

**Make and translate these sentences.**

Are, your, morning, you, exercises, doing?

I, writing, translation, the, of, this, text, am.

Has, taken, she, bag, this?

He, written, a, had, letter, by, o’clock, 5.

**Put the verbs into the correct form Present Continuous or Present Simple.**

1. Hurry! The bus (come). I (not/want) to miss it.

2. The River Nile (flow) into the Mediterranean.

3. The river (flow) very fast today – much faster than usually.

4. (it/ever/snow) in India?

5. We usually (grow) vegetables in our garden bat this year we (not/grow) any.

6. You can borrow my umbrella. I (not/need) it at the moment.

7. George says he’s 80 years old but I (not/believe) him.

8. A: What (your father/do)?

B: He’s a teacher, but he (not/work) at the moment.

**Текст "COMPUTER CRIMES"**

(1) More and more, the operations of our businesses, governments, and financial institutions are controlled by information that exists only inside computer memories. Anyone clever enough to modify this information for his own purposes can reap substantial re wards. Even worse, a number of people who have done this and been caught at it have managed to get away without punishment.

(2) These facts have not been lost on criminals or would-be criminals. A recent Stanford Research Institute study of computer abuse was based on 160 case histories, which probably are just the proverbial tip of the iceberg. After all, we only know about the unsuccessful crimes. How many successful ones have gone undetected is anybody's guess.

(3) Here are a few areas in which computer criminals have found the pickings all too easy.

(4) Banking. All but the smallest banks now keep their accounts on computer files. Someone who knows how to change the numbers in the files can transfer funds at will. For instance, one programmer was caught having the computer transfer funds from other people's accounts to his wife's checking account. Often, tradition ally trained auditors don't know enough about the workings of computers to catch what is taking place right under their noses.

(5) Business. A company that uses computers extensively offers many opportunities to both dishonest employees and clever outsiders. For instance, a thief can have the computer ship the company's products to addresses of his own choosing. Or he can have it issue checks to him or his confederates for imaginary supplies or ser vices. People have been caught doing both.

(6) Credit Cards. There is a trend toward using cards similar to credit cards to gain access to funds through cash-dispensing terminals. Yet, in the past, organized crime has used stolen or counterfeit credit cards to finance its operations. Banks that offer after-hours or remote banking through cash-dispensing terminals may find themselves unwillingly subsidizing organized crime.

(7) Theft of Information. Much personal information about individuals is now stored in computer files. An unauthorized person with access to this information could use it for blackmail. Also, confidential information about a company's products or operations can be stolen and sold to unscrupulous competitors. (One attempt at the latter came to light when the competitor turned out to be scrupulous and turned in the people who were trying to sell him stolen information.)

(8) Software Theft. The software for a computer system is often more expensive than the hardware. Yet this expensive software is all too easy to copy. Crooked computer experts have devised a variety of tricks for getting these

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expensive programs printed out, punched on cards, recorded on tape, or otherwise delivered into their hands. This crime has even been perpetrated from remote terminals that access the computer over the telephone.

(9) Theft of Time-Sharing Services. When the public is given access to a system, some members of the public often discover how to use the system in unauthorized ways. For example, there are the "phone freakers" who avoid long distance telephone charges by sending over their phones control signals that are identical to those used by the telephone company.

(10) Since time-sharing systems often are accessible to anyone who dials the right telephone number, they are subject to the same kinds of manipulation.

(11) Of course, most systems use account numbers and passwords to restrict access to authorized users. But unauthorized persons have proved to be adept at obtaining this information and using it for their own benefit. For instance, when a police computer system was demonstrated to a school class, a precocious student noted the access codes being used; later, all the student's teachers turned up on a list of wanted criminals.

(12) Perfect Crimes. It's easy for computer crimes to go undetected if no one checks up on what the computer is doing. But even if the crime is detected, the criminal may walk away not only unpunished but with a glowing recommendation from his former employers.

(13) Of course, we have no statistics on crimes that go undetected. But it's unsettling to note how many of the crimes we do know about were detected by accident, not by systematic audits or other security procedures. The computer criminals who have been caught may have been the victims of uncommonly bad luck.

(14) For example, a certain keypunch operator complained of having to stay overtime to punch extra cards. Investigation revealed that the extra cards she was being asked to punch were for fraudulent transactions. In another case, disgruntled employees of the thief tipped off the company that was being robbed. An undercover narcotics agent stumbled on still another case. An employee was selling the company's merchandise on the side and using the computer to get it shipped to the buyers. While negotiating for LSD, the narcotics agent was offered a good deal on a stereo!

(15) Unlike other embezzlers, who must leave the country, commit suicide, or go to jail, computer criminals sometimes brazen it out, demanding not only that they not be prosecuted but also that they be given good recommendations and perhaps other benefits, such as severance pay. All too often, their demands have been met.

(16) Why? Because company executives are afraid of the bad publicity that would result if the public found out that their computer had been misused. They cringe at the thought of a criminal boasting in open court of how he juggled the most confidential records right under the noses of the company's executives, accountants, and security staff. And so another computer criminal departs with just the recommendations he needs to continue his exploits elsewhere. 22

**Fill in the blanks with shall or will.**

1. I … help you tomorrow.

2. We … never leave our friends who need us

3. They … receive the freedom of the city!

4. The two brothers … never be separated again!

5. I … pay my account at the end of the month.

6. He … feel cold without an overcoat in December.

7. We … all grow old, sooner or later.

8. It … cost a lot of money to live in such a fine hotel.

9. You … understand English much better in twelve month’s time.

10. People say that the world … grow cold in 20,000,000 years.

**Insert to be in the right form.**

1. There … a telegram on the table.

2. … there any telegrams from Moscow? Yes, there … some.

3. … there … a flight for Moscow tomorrow?

4. There … much snow last winter.

5. There … a lot of stars and planets in space.

6. Some years ago there … many old houses in our street.

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Заключение

Изменения, которые произошли в нашей стране, поставили многих выпускников ССУЗов и ВУЗов перед необходимостью владения иностранным языком (английским).

Обучение, по предложенному Вашему вниманию методическому обеспечению, по дисциплине «Иностранный язык (английский)», по специальности 190604.51, 52 «Техническое обслуживание и ремонт автомобильного транспорта» подготовит Вас к общению на английском языке в профессиональной деятельности.

Общение между людьми осуществляется разными способами: мы произносим речи, участвуем в беседе, пишем письма, слушаем своих собеседников, читаем книги и т.д. Некоторые из этих способов общения и были предложены в данном методическом обеспечении.

Работая над этим методическим обеспечением по «Иностранному языку (английский)», мы стремились к тому, чтобы условия общения на занятиях были максимально приближенными к Вашей будущей деятельности, чтобы в процессе общения Вы могли получить интересную и полезную информацию, имели возможность выразить собственное мнение.

Я надеюсь, что приобретенные знания и опыт общения на английском языке Вы сможете применять в будущей профессиональной деятельности.

Говоря о перспективе работы с методическим обеспечением есть возможность его использования при дистанционном обучении (на очном или заочном обучении).

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Литература

1. Интернет-ресурсы

http:/www.google.ru ( поисковая система )

http:/festival.1september.ru ( сайт клуба « Первое сентября» )

2 Англо-русский словарь Мюллера, М. «Локид», 1998.

3 Ковалев Т.Я. «Времена английского глагола». Издательство Новосибирского университета.

4 Русско-английский словарь. В.Мюллер, С.Боянус. М., «Локид», 2001.

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