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METHODOLOGY OF USING MEDIATECHNOLOGIES IN THE ENGLISH LESSONS

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Mazkur monografiyada hozirgi kundagi dolzarb masalalardan biri, multimedia texnologiyalarinin ta’lim jarayonida qo’llash, xususan texnika yo’nalishidagi talabalarga ingliz tilini o’rganishda multimedia texnologiyalarini qo’llash metodologiyasi, uning dars samaradorligiga ta’siri yoritib berilgan va tegishli taklif-tavsiyalar ishlab chiqilgan.

Monografiya oliy ta’lim muassasalarida xorijiy tillarni o’qitish jarayonida o’quv qo’llanma sifatida foydalanishga ham mo’ljallab yozilgan.

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Introduction

Today, progress can not be imagined without information and communication technologies. Great attention is paid to the issues of informatization of education in Uzbekistan. In particular, in order to improve the quality of general secondary education through the development, improvement and introduction of e-learning resources on the basis of information and communication technologies in our country, the Center for the development of multimedia secondary education programs was established under the Ministry of public education of the Republic of Uzbekistan.

Today's pedagogy requires further colorization and enrichment of methods of cultivation in the field of education, proper and productive use of pedagogical technologies. In particular, the use of multimedia in teaching foreign language subjects plays an important role in achieving the intended goal.

Multimedia and its role in the modern world

It should be noted that the rational use of modern information and communication technologies in the process of further development of the educational system will be an important factor in further improving the quality of Education. The introduction of modern information technologies into the educational process creates an opportunity to provide economic benefits, as well as to widely apply new educational methods in education. Specialized audiences are becoming increasingly popular in classrooms equipped with computers, television and video recording. Even it is being interpreted as a separate video. In the course of the lesson, Multimedia is the main role in the use of Information Technology. Multimedia is an embodiment of the delivery of educational materials to students, students on the basis of software and technical means of Informatics on the basis of audio, video, photo, text, graphics, animation tables. Multimedia is developed to transmit sound, data and images over regional, regional and global networks.

Multimedia (multiple media, eng.) is the interaction of visual and audio information under the control of interactive software using modern hardware and software, they combine text, sound, graphics, photos, videos in one digital representation.

For example, a single container object can contain text, audio, graphics, and video information, and possibly a way to interact with it.

The term multimedia is also often used to refer to media that can store large amounts of data and provide fairly quick access to them (the first media of this type were CD — compact disk). In this case, the term multimedia means that the computer can use such media and provide information to the user through all possible types of data, such as audio, video, animation, image and others in addition to traditional ways of providing information, such as text. The definition given above is actually a user definition, that is, a General simplified definition of multimedia for

the understanding of the computer user. The scientific and technical definition of multimedia is somewhat different.

Multimedia are multiple information environments-interfaces that provide input/output of information of different types to the computer, computer creation, processing and display of information of different levels and structures for perception by different human senses at the same time.

Multimedia is a set of information media-channels, each of which has its own specific form corresponding to its level and purpose.

The main environments are ordered in ascending order, as follows:

- binary environments that include processor instructions, program and data binaries

- contact environment, which is a tactile, strain, electric, capacitive and other touch environment, used to input mechanical code and other spatial-dependent information;

- text environments, which are text data for people, program texts for interpreters, other text information;

- audio streams, which are sound files, series of digitized sound, sets of musical audio data and other types of digital sound;

- graphical environments, which are files of drawings, photographs and other two-dimensional graphical information;

- video streams, which are video files, series of dynamic graphic information;

- virtual reality, which is an interactive 3D video stream.

Use of multimedia provides ease of perception of information by the person as the person has means and ways of processing of information essentially different from the computer, having the form of perception convenient for the person.

If a computer is characterized by binary-discrete forms of information with electrical transmission of information signals (1/0), then for a person - multimodal-analog forms of predominantly non-electric nature (light, sound, pressure, etc.).)

Without the creation of such environments, human perception of computer information is extremely difficult, and even more difficult is the transfer of multimodal information from one person to another through computer means.

Therefore, the technology and technology of multimedia includes a wide range of different interfaces, as input interfaces (sensors-video camera, microphone, touch screen, etc., converters-ADC, special processors to convert external information) and output interfaces (displays, sound sources, etc.).

Multimedia tools can include the following:

Text materials. The textual lecture part of the organization of theoretical classes occupies the most significant place. As a rule, all materials included in the curriculum are created in text form, after which, in addition to them, audio and video materials are developed. The presentation of the instructional material in this pseudonym provides for the elimination of a number of shortcomings of traditional lectures (copying, recording the necessary places, excessive time spent by the speaker to repeat it over and over again). The necessary accents in the text of the lecture are given by color, shape of letters and illustrations, which ensures the transmission of emotions.

Audio materials. This type of material is distributed through two modes. Audio materials in On-line mode are distributed using communication technologies. Audio materials in Off-line mode are recorded in cassettes, audiodisc, files the case is distributed through network technologies. Listening to lectures by educators is also done through audio devices that are equally convenient and compact.

Video materials are transmitted in synchronous and asynchronous order. Simultaneous, direct transmission of video materials ensures direct communication of educator and educator, embodies all positive aspects inherent in traditional lectures, ensures that educators and educators see and hear each other in real time.

When transferring training materials in asynchronous order, video materials are recorded and distributed on video cassettes and discs. The composition of such video

materials includes lectures, educational scientific-popular video materials on the subject, video recordings of meetings with mature specialists of this field. The use of such video materials can optionally be performed anywhere and anytime, over and over again.

Animation lectures are delivered to educators through instructional computer programs that have an interactive structure. Animation lectures are formed using multimedia technology. In this each educator chooses the training, the pace of mastering and the method of learning in the animation lecture, proceeding from its psychophysiological nature. Practical training is based on simulators, virtual reality-based teaching tools, expert teaching systems, embodying the modern achievements of computer technology. In the distance learning system, simulators provide for the acquisition of intelligence and on the basis of imitation of labor operations. Virtual reality allows you to accelerate the processes of qualification on the basis of the principles of idealization of the environment. Expert training systems are aimed at identifying the level of knowledge of the educators and organizing the development processes on the basis of knowledge and data bank, which can perform the function of a mature specialist of the relevant field of activity.

Classification multimedia. Multimedia can be divided into linear (no feedback) and interactive environments.

Cinema can be an analogue of the linear way of representation. The person viewing this document cannot influence its conclusion in any way.

Interactive (non-linear) way of presenting information allows a person, programs, networks to participate in the output of information, interacting in any way with the means of displaying multimedia data. The involvement of two or more parties in this process is called “interactivity”. This method of human-computer interaction is most fully represented in the categories of computer games. The interactive way of presenting multimedia data is sometimes referred to as ”hypermedia”.

As an example of linear and interactive ways of presenting information, we can consider such a situation as a presentation. If the presentation was recorded on tape or in a video file, and is shown to the audience, then viewing this presentation have no opportunity to influence its course. In the case of a live presentation, the audience has the opportunity to ask the speaker questions and interact with him in other ways, which allows the speaker to depart from the topic of the presentation, for example, explaining some of the terms or highlighting in more detail the controversial parts of the report. Thus, a live presentation can be presented as an interactive (non-linear) way of presenting information.

Local and network media capabilities. Multimedia presentations can be made by a person on stage, shown through a projector, or on another local playback device. Broadcast presentation can be both “live” and pre-recorded. Broadcasting or recording can be based on analog or electronic technologies of storage and transmission of information. It is worth noting that online media can be either downloaded to the user's computer and played in any way, or played directly from the Internet using streaming technologies. Media played using streaming technologies can be both “live " and provided on demand.

Various formats of multimedia data can be used to simplify the perception of information by the consumer. For example, to provide information not only in text form, but also to illustrate it with audio data or a video clip. In the same way, contemporary art can present everyday, everyday things in a new way.

Various forms of providing information make it possible for the consumer to interact with the information. Online multimedia is increasingly becoming object-oriented, allowing the consumer to work on information without possessing specific knowledge. For example, to post a video on YouTube or Yandex. Video, the user does not need knowledge of video editing, encoding and compression of information, knowledge of the device web-servers. The user simply selects a local

file and thousands of other users of the video service have the opportunity to view the new video.

A multimedia Internet resource is an Internet resource where basic information is presented in the form of multimedia. This is a modern and very convenient mechanism that does not replace the classical functions, but complements and expands the range of services and news for visitors.

Multimedia Internet resources are characterized by the following:

• they can contain different types of information (not only text, but also sound, graphics, animation, video, etc.);

• have a high degree of visibility of materials;

• support different file types: text, graphics, audio and video;

• can be used to promote creative works in various arts;

• multimedia due to its visibility reduces the level of intellectual and psychological barrier between the user and the information technology process.

This type of resource makes it possible to quickly report on the events that are organized, to demonstrate an overview of the field, institution or creative team, to establish feedback with its visitors, to disclose goals and materials using modern mechanisms of information presentation and to promote recognition of the presented object through the Internet.

Multimedia has applications in a variety of fields, including advertising, the arts, education, the entertainment industry, technology, medicine, mathematics, business, research and space-time applications, and other human information processes.

Education. In education, multimedia is used to create computer-based training courses and reference books such as encyclopedias and compilations. A training course allows the user to go through a series of presentations, text about a particular topic, and associated illustrations in various information formats. Entertainment education (edutainment is a term used in the United States) that combines education

and entertainment, especially multimedia entertainment. Learning theory has evolved significantly over the past decade with the advent of multimedia. There are several areas of research, such as the theory of cognitive load, multimedia training and others.

The opportunities for training and education are almost endless. The idea of media convergence is also becoming one of the most important factors in education, especially in higher education. Defined as individual technologies such as voice (and telephony functions), databases (and derived applications), video technologies that now share resources and interact with each other, comprehensively creating new responsiveness, media convergence is a rapidly changing curriculum of disciplines taught in universities around the world. Newspaper companies are also trying to embrace the new phenomenon by incorporating its practices into their work. Engineering software Engineers may use multimedia in computer simulations for anything from entertainment to training such as military or industrial training. Multimedia for software interfaces are often done as a collaboration between creative professionals and software engineers. More user-friendly software is created, eliminating the barrier between the user and the program. Multimedia tools are beginning to be actively used for the development of identification systems in various fields: banking, trade, security, medical, research Industry in the industrial sector, multimedia is used as a way of presenting information to shareholders, management and colleagues. Multimedia is also useful for providing employee training, advertising and selling products worldwide through virtually unlimited web-based technologies. Computer graphics combined with tomography technology allows you to discover new mineral deposits, to explore the internal state of technical objects, inaccessible in other ways. In mathematical and scientific research, multimedia is mainly used for modeling and simulation. For example: a scientist can look at a molecular model of a substance and manipulate it to produce another

substance. Exemplary research can be found in journals such as the Journal of Multimedia.

Medicine. Doctors can also get trained by performing virtual surgeries or simulations of the human body affected by diseases spread by viruses and bacteria, thus trying to develop techniques to prevent it. Graphic media, combined with tomographic technology can effectively study the human body, its organs.

Multimedia technologies "capture" the world. Computer games, 3D-formats, intelligent systems-without it is difficult to imagine our lives. But multimedia is not only entertainment, it is also convenience, functionality, efficiency and business security.

Multimedia any system that has an impact on several channels: video, audio, text, and often gives the opportunity for interactive interaction, for example, in the process of playing or learning. A more advanced level of multimedia is considered to be intelligent systems that not only broadcast information, but also can centrally manage it. For example, such a system can be configured to turn on a certain time before the event. At the same time, it checks for errors and "knows" the playback sequence. Such systems can be synchronized with the schedule of events in the mail service. You can't do without smart media when designing a security system. "Smart multimedia" is able to" cover " the entire space, provide limited access to it, video surveillance, fire sensors and alerts, that is, it works on several fronts. So, the main task of intellectual media systems is to make our lives easier, to make the necessary processes more functional, to optimize them, thereby reducing the time and financial costs. All parts of the system are interconnected and are part of a single information space. Management of the system is often carried out from one point, by one person, intuitively understandable and accessible. Intelligent systems can be used in almost any business area.

Characteristics of multimedia technologies are the basis for the development of information direction. Today it is one of the most promising, popular, continuously

developing areas of computer science. This term refers to the creation of a product that, through the introduction and use of new technologies, a set of images, texts and data, accompanied by sound, video, animation and other visual effects, informs the audience.

Multimedia technologies also include an interactive interface and other control mechanisms. In order to better understand and understand what types of multimedia technologies exist, it is necessary to identify and highlight the main directions of their use. It's really important.

Types of multimedia technologies. The use of multimedia technologies is divided into:

- General or individual use;
- for professionals or for the average consumer;
- for interactive and non-interactive applications;
- to use information locally or at a distance.

It is necessary to dwell on each of these points.

1.Technologies of General or individual use. Concerning technologies of General use it is possible to allocate the following types: interactive terminals, some technologies of presentations by means of the computer, those that expand on networks. In turn, the technologies of individual use include multimedia workstations, classrooms, multimedia computers for maintaining various documents. The main places of their application include public areas, as well as homes and workplaces of consumers.

2.Technologies for professionals and ordinary consumers. This category includes multimedia work areas (computer graphics, projects, etc.). This may also include systems used by non-experts. They are usually used in public places, it is a system with built-in microprocessors, which are designed to function in the home. These are game consoles, CD-I, Play Station.

3.The use of information in place and at distances. The rapid development of multimedia at the initial stage can be explained by the rapid development of desktop computers, which everyone has at home today. Then it became possible to record and store information on specially designed CDs. Modernity dictates its own rules. Today's rapid development of medium-and high-bandwidth digital networks suggests the rapid development of remote multimedia technologies.

4.Application of interactive and non-interactive technologies. Coming to this category, it should be emphasized that a large number of experts do not agree that non-interactive systems can be called multimedia. But it is important to understand that their number can significantly increase. Thus, non-interactive multimedia are used to attract attention and entertain the audience through presentations and exhibitions.

It is especially important to understand the role of multimedia technologies. This should be discussed in more detail.

The importance and role of multimedia technologies

The importance of multimedia today is quite large. One of the main areas where these technologies have shown themselves, can be called educational. They are now very actively implemented and successfully used for training. New effective and efficient means of presenting information and communicating it to students are being developed. So, one of the most common and familiar methods of implementation in the educational process today can be called a presentation.

During the course of the large-scale screens offered information for study. Multimedia technology such as presentation can take place at different stages of training:

• at the time of updating the reference knowledge;

• during the frontal survey, the text of the question is displayed on the screen, and after a reliable answer by students, the transition to the hyperlink to the slide with the visualization of the answer takes place;

• under the form of frame supports, the stages of solving problems are displayed, from which you can quickly go to the slide with new initial conditions or a picture, and then continue the solution.

This approach contributes to a significant saving of time, which is given to the lesson. The teacher has the opportunity to assess the level of knowledge of more students. This is just one example. The role of multimedia is quite large in all spheres of life in the modern world.

Main objectives of multimedia:

The purpose of multimedia technologies may vary depending on the specific application. Typically, this:

• promotional and entertainment;

• educational, scientific and educational;

• research, etc.

Considering each of them in more detail, it should be said that, for example, the popularization goal is one of the main ones. Advertising actively uses multimedia to attract potential buyers and customers.

The scientific and educational aspiration is actively applied in the following directions:

• selection through rigorous analysis of products on the market that can be applied within the relevant framework;

• development of multimedia product by teachers, based on their goals and objectives in the educational process.

Speaking of research purposes, the use of multimedia technologies to create all sorts of electronic archives immediately comes to mind.

One way or another, but the features of multimedia technologies lie in their ubiquity and breadth of application.

Application, functions and tasks of multimedia technologies

It is noteworthy that the functions of multimedia technology perform, based on the scope of their application.

Speaking about the main, it should be said that in the educational sphere, as mentioned earlier, multimedia performs the function of an educational nature. Technologies are used to create computer-based training courses. In the industrial sector are widely used as a presentation of data for persons in managerial positions.

Value for medicine is especially great. Doctors today have a unique opportunity to undergo quality training through virtual operations. SOFTWARE developers use multimedia in computer simulations of anything.

Starting from the fields of application and functions of these technologies, the formulation of tasks is obvious. Each industry has its own goals and objectives, the achievement of which through multimedia allows you to improve.

Thus, the tasks of multimedia technologies in the educational sphere are based on improving the efficiency of the learning process. In advertising, the main task is to achieve the goals, convey information to the audience and promote the goods or services in this way.

Learn more about media technology. Media technologies are divided into two classes. Based on interaction and their application.

The first category will correctly include the means of synchronous, asynchronous interaction, online mode.

The second category includes a variety of virtual objects, real video, audio, animation graphics, etc.

To create and implement such technologies will require a PC, the appropriate software, as well as tools for designing multimedia projectors for display on large screens.

In order to get an image as well as sound, you need to connect a multimedia projector to your computer.

Multimedia technologies at the exhibition. All the above information is just the basics of multimedia technologies. In order to assess the scale of development of this direction, you should definitely visit the specialized exhibition of international level "Advertising", which will be held in Expocentre Fairgrounds. This is an event that is eagerly awaited by specialists in various industries, seeking to join the event, known all over the world.

Participation in the exhibition today is a real chance to advance and expand its influence in the market, consolidate its position, and for someone to confidently stand on its feet, with the support of investors.

Today they are actively used in all countries of Europe and the United States, gradually conquering Russia. Experts believe that multimedia is the future. But in this case, we can say that the future has already come. Multimedia technology uses hardware and software. Hardware includes analog and digital signal converters, video processors, decoders, sound and video cards. That is, all devices for sound recording, playback, transmission and processing of sound and image (including virtual reality - glasses, binoculars, VR-helmets and gloves, 3D-panels). Software tools are what help you develop multimedia applications. That is a program for working with graphics and animation, including 3D animation, sound processing, video editing, etc. Types of intelligent media systems Types of intelligent media systems to date, pretty much. Let's consider in more detail what implementation options have different systems and what tasks they will help to solve. Audio systems Are widely used - from conference rooms and meeting rooms to train stations and stadiums. It is impossible to imagine theatrical performances, concerts and lectures without them. Audio systems are needed to quickly alert people in case of danger or to convey important information, so they are also installed in offices, shopping centers, schools and other institutions.

The main tasks of audio systems: transmission and amplification of sound without distortion, sound adjustment; background and concert sound; broadcast

audio, microphone and Congress systems; notification in case of emergency. Displays and projectors, led facades and screens, video walls and many other visualization tools perform two main functions: video broadcasting (including real-time) and video surveillance. That is why they are often used:

- during events, presentations, concerts, conferences to display information on the screen (corporate information, output schedules);
- in shopping centers, airports, train stations, on the street - for advertising and reporting important information; in offices, enterprises, all major facilities and crowded places (including elections) - to monitor and record what is happening;
- in hotels, hotels to create a hotel television and IPTV system;
- at exhibitions and large exhibition complexes as interactive displays, stands and maps to demonstrate the design project of the future object. Just a hand and a screen (wall, interactive table, scoreboard) to see the information of interest. More advanced solutions allow you to control in three-dimensional space even without touching the screen.

Lighting systems are not just screwed bulbs, it is an automated control of artificial and natural light, architectural, stage and stage lighting, as well as the ability to create different light intensity in different areas. For example, perimeter, Banquet, concert lighting, lighting; support activities, creating the desired effects; emergency lighting and notification in case of emergency; registration of premises, creation of the necessary atmosphere and a situation. Thus, lighting systems are needed in concert halls, conference halls, exhibition complexes, museums, offices, banks and public institutions and in other public areas, such as halls and hotel rooms.

Video conferencing (VC) allows people to communicate in real time, located at a considerable distance from each other. This is much more effective than talking on the phone, because you can see each other, and secondly, participate in a collective conversation. In the current conditions, HQs becomes an alternative to

face-to-face meetings, excluding the influence of such factors as traffic jams, busy work schedule of participants, territorial remoteness, travel costs. This system is useful: in the work of companies that have an extensive network of branches. Employees from other cities can participate in the meeting. For negotiations with clients from different countries. In distance learning. In telemedicine. In the media for the transmission of information from the scene, etc. Video conferencing is more cost-effective. Travel expenses are reduced, enterprise management becomes more efficient, managers' time is saved. The cost of a minute of video conferencing is comparable to the cost of mobile communication, but its coverage and efficiency is much higher. Interactive (centralized) control systems they allow you to monitor the process in real time, here and now and from a single point. Enable system-wide administration and monitoring. In this case, interactive management integrates all systems at once and allows you to configure them centrally. Thus, they can work remotely, which will reduce staff costs. As a rule, one specialist will be enough. Here are just a few examples of the use of interactive management: integrated security systems. They" themselves " monitor the reaction of all sensors, controlling in many directions at once (access, video surveillance, fire alarm, etc.). Events, providing light, sound, image, special effects.

Organization of work on schedules and meetings from the mail program. Creation of logistics chains, accounting and analysis of business processes, reporting systems, information collection. All this is applicable both in large enterprises and, for example, in health clubs, where access to gyms, locker storage, preservation of information about the training program and the results, given the number of visitors, etc. can also be carried out by means of interactive control. Electronic queue with this technology in one way or another faced each of us. It allows automated queue management in banking and public institutions, polyclinics and medical centers. In addition to the organization of the process, this system also allows you to generate statistics and reports on services. Virtual and augmented reality in the created virtual

reality, you can, for example, evaluate the design project, see different options for decoration and layout. Thus, this system can be successfully used in the design of buildings, the development of interior design, as well as in gaming and entertainment spaces. To create virtual and augmented reality, 3D rooms and video clubs, holographic images are used: additional light, sound and other effects significantly change the perception of information, strengthening and supporting each other. Multimedia systems have long been an integral part of the work of offices, banks, industrial enterprises, large warehouses, medical institutions, shopping centers, theaters and concert halls. For their use to be really effective, they must be provided for in the project of the electrician of the object or room. Today, not everyone understands the need for this and often turn to specialists already at the stage of finishing. As a result, it is necessary to spend additional funds on alteration and modernization.

Multimedia technologies in education

Modern society, called information and characterized by the process of informatization, the development of information technology and computer technology, is associated with the results of successfully developing education: it is in this area laid social, psychological, cultural and professional prerequisites for social development. Many scientists (T.P.Voronina, E.Masuda, A.Toffler et al.) believe that in the information society, the process of computerization will give people wide access to sources of information, provide a high level of automation of its processing in the industrial and social spheres. The above leads to the conclusion about the need for the process of informatization of modern society as a whole, including education. Informatization of education is understood as the process of providing education with the methodology and practice of optimal use of it, focused on the implementation of social, psychological and pedagogical goals of training and education. Informatization of modern education is closely connected with the use of information technology in the history lessons, part of which are multimedia technologies. The term "multimedia" (persistent. multimedia) comes from lat.multum - much and media - medium - focus; that means is an electronic storage medium, including several types (text, image, animation etc)(3). The common meaning of the term "multimedia technologies" is the following: MMT is interactive technologies that provide work with still images, video, animation, text and sound. With regard to education, S.G.Grigoriev and V.V.Grinshkun give the following definition of the term "multimedia": "Multimedia is a range of information technologies that use various software and hardware in order to most effectively influence the user (who has become both a reader, a listener and a viewer)". Multimedia technologies are classified into linear and nonlinear, and there are no clear definitions of these concepts in the literature. Cinema can be an analogue of the linear way of representation. The person viewing this document cannot in any way affect its contents. Non-linear way of presenting information allows a person to

participate in the output of information, interacting in any way with the means of displaying multimedia data. Human participation in this process is also called "interactivity". This way of human-computer interaction is most fully represented in the categories of computer games.

The process of emergence and spread of multimedia technologies is inextricably linked with the history of information technology, which has its roots in ancient times (as the researchers note, the development of it begins with the appearance of speech and continues to evolve with the invention of writing around 2350 BC). The stages of it development today are clearly defined. Periodization of MT in the study were not identified, therefore, highlight the stages in the development of multimedia technologies, based on the recognition of the importance of key events and achievements in the field of their formation and evolution: the first phase (1945 – early 1960s;) starts the emergence of multimedia technologies, the ideological premise which considered the concept of the organization of memory "MEMEX" proposed in 1945 by the American scientist Vanevera Bush. It provided for the search for information in accordance with its semantic content, and not on formal grounds. The idea laid down in it found its remarkable computer implementation and development in the form of hypertext, which was the basis for the creation of hypermedia and multimedia systems. In the second phase (early 1960s – 1975;) is the process of developing multimedia applications used in many spheres of life and human activities, including in the field of education, where a special place is occupied educational multimedia products that enable to deepen the knowledge, increase efficiency and reduce training time. In the third stage (1975). - the beginning of the 1990s;) multimedia technologies, including text, graphics, digitized speech, sound recording, photography, animation, video clips, etc., are spreading.

The rapidly growing power and capabilities of personal computers, on the one hand, and the development of the ideas of object-oriented programming, on the

other, have created an ideal environment for the technical implementation of multimedia. On the modern fourth stage (the beginning of the 90-ies of XX century – beginning of XXI century) is a further development of multimedia technologies. Multimedia (especially hypermedia) applications, being an effective means of presenting educational material, contain powerful means of branching and adaptation to the needs of students, allow them to freely search for information of interest and choose it, manage the learning process.

In addition, applications are generally equipped with effective tools to assess and monitor the process of learning and acquiring the necessary skills. Thus, it should be noted that multimedia technologies have penetrated into all spheres of human activity: science, production, management, education, culture, etc. Currently, there is an active creation of on-line multimedia products in the form of Internet sites dedicated to history. The use of MT in history lessons allows to diversify the educational process, contributes to the formation of interest in national history. When teaching history in high school with the help of MT, it is necessary to take into account the psychological and pedagogical characteristics of students, since the lessons of national history at this stage of training require additional information content and structural content, which can be represented by multimedia technologies.

Multimedia technologies enrich the learning process, make learning more effective, involving in the process of perception of educational information most of the sensory components of the student.

Today, multimedia technology is one of the promising areas of informatization of the educational process. The prospect of successful application of modern information technologies in education is seen in the improvement of software and methodological support, material resources, as well as in the mandatory professional development of the teaching staff.

Multimedia and hypermedia technologies integrate powerful distributed educational resources, they can provide an environment for the formation and manifestation of key competencies, which include primarily information and communication. Multimedia and telecommunication technologies open up fundamentally new methodological approaches in the system of General education. Interactive technologies based on multimedia will solve the problem of" provincialism " of rural schools both on the basis of Internet communications, and through interactive CD-courses and the use of satellite Internet in schools.

Multimedia - is the interaction of visual and audio effects under the management of interactive software using modern hardware and software, they combine text, sound, graphics, photo, video in one digital view.

Hypermedia is computer files linked through hypertext links to move between multimedia objects.

For computer classes at schools attractive are Internet technologies, however, possessing the advantages associated with the possibility of obtaining relevant information, opportunities of engaging in dialogue with almost all the world, they have serious drawbacks: difficulties when working with large volumes of data with poor communication lines (such as in remote regions and rural areas in Russia most), the inability to work without lines. These disadvantages are eliminated by the use of optical compact discs called CD ROMs and DVDs.

Available software products, including ready-made electronic textbooks and books, as well as their own development allow the teacher to improve the efficiency of training. Indispensable assistant teacher in finding and obtaining information, and as a means of communication with colleagues, becomes the Internet.

Use of multimedia technologies. It is possible to recommend the following main methodological features of the organization of training of the modern students:

1) lessons with the use of multimedia presentations are held in computer classes with the use of multimedia projectors, resident guides, automated training systems, videos of various programs, etc.;

2) in practical classes for each student should be assigned a separate computer on which it is advisable to create his personal folder, called the class cipher and the name of the student;

3) the individual approach including wide use of the individualized training programs, Bank of multilevel tasks (on practical classes and laboratory works shall be used);

4) it is advisable to carry out a significant part of the classes in the form of business games; as tasks should be given real life multivariate and undeliverable tasks, especially those with which graduates will meet in professional activities;

7) the project method should be widely used, in which it is necessary to observe the principles of consistency and continuity; this means that one global task should be consistently performed in all practical (laboratory) and computational and graphic works, supplemented and expanded, embodied in a coherent complete system;

8) the possibility of parallel and concentric study of the main sections of the program should be provided; this allows students to acquire a deeper knowledge of each of the sections as they learn the course, without losing the integrity of the presentation of all the material;

9) it is necessary to rely on the following interrelated principles: motivation of knowledge; versatile perception; "penetrating" system-information analysis;

10) it is necessary to use problem method of training more widely, to provide development by trained real programs (documents, tables, databases) which can be used in the course of training.

The use of multimedia technologies in education has the following advantages in comparison with traditional education:

• allows the use of color graphics, animation, sound, hypertext;

• allows continuous updating;

• has small publishing and reproduction costs;

• allows interactive web elements, such as tests or a workbook, to be placed there;

• allows parts to be copied and transferred for citation;

• allows the possibility of nonlinearity of the passage of the material due to the set of hyperlinks;

• establishes hyperlink with additional literature in digital libraries or educational websites;

Multimedia allows you to combine verbal and visual-sensory information, which helps to motivate students, the creation of relevant settings for learning.

The organization of classroom classes with the use of multimedia technologies makes it possible to save time, thereby intensifying the presentation of educational material, through the use of very simple, accessible to any student means. During the lesson, the students themselves can be created to the limit visualized colorful educational and gaming environment that produces a literally revolutionary effect in the perception of the subject "Informatics" students.

Multimedia computer technologies give the teacher the opportunity to quickly combine a variety of tools that contribute to a deeper and more conscious assimilation of the studied material, save time, saturate it with information.

The introduction of multimedia technologies in teaching the modern course of Informatics revealed a number of positive aspects and several difficult moments. So the organization of classes using multimedia technologies with the use of a special projector makes it possible to demonstrate the capabilities of the studied software and save time, thereby intensifying the presentation of educational material. At the same time, there are additional requirements for the preparation of multimedia materials and the organization of the lesson.

The inclusion of information multimedia technologies makes the learning process more technological and efficient. Yes, on this way there are difficulties, there are mistakes, it is impossible to avoid them in the future. But the main success is the interest of students, their readiness for creativity, the need for new knowledge and a sense of independence. The computer allows you to do lessons that are not similar to each other. This sense of constant novelty promotes interest in learning.

Thus, the use of multimedia in the classroom through interactivity, structuring and visualization of information increases the motivation of the student, the activation of his cognitive activity, both at the level of consciousness and subconscious.

Of all information channels, visual is the most powerful, so its use in the field of education by means of multimedia is more developed. However, this does not negate the importance of other media. For example, the efficiency of mastering the material significantly increases the creation of each multimedia textbook for its rhythmic dominant with the help of optimal selection of musical accompaniment. Intelligent interaction of keyboard and mouse in multimedia textbooks in combination with other media adds another advantage of this educational technology. It is based on the fact that manual exercises significantly develop memory. It is no accident that earlier in high schools contour maps were drawn – to "fill" the hand and to better remember. If in the future to achieve an increase in the normalization of use (to minimize accidental keystroke), the moments associated with the mouse and keyboard will be easier to formalize. It is necessary to rely on research in the field of engineering psychology and ergonomics. Individual works of individual author's consciousness (text, images, sound, video) are combined into a new system. Interacting with each other already at the stage of scenario development (calculation of all functionality expected from the product in accordance with its intended purpose), they lose their independence.

Multimedia work as a result of this interaction receives qualities that are not present in individual works. The fact is that science (linguistics, art history, etc.) has accumulated knowledge about these individual forms of information, and the properties of the multimedia environment are just beginning to be studied. Ultimately, multimedia in education are effective as far as their use solves a specific educational task – to teach something, to develop the skill of working with something. There is no doubt that multimedia technologies enrich the learning process, allow to make learning more effective, involving in the process of perception of educational information most of the sensory components of the student. Thus, according to G.Kirmayer, when using interactive multimedia technologies in the learning process, the share of assimilated material can be up to 75%. It is quite possible that this is probably a clearly optimistic assessment, but the increase in the efficiency of learning material, when the process of perception involves both visual and auditory components, was known long before the advent of computers.

Multimedia technologies have turned educational visibility from static to dynamic, that is, it became possible to track the studied processes in time. Previously, only educational television had such an opportunity, but this area of visibility lacks the aspect associated with interactivity. Modeling processes that develop over time, interactively changing the parameters of these processes is a very important didactic advantage of multimedia training systems. Moreover, quite a lot of educational tasks associated with the fact that the demonstration of the studied phenomena cannot be carried out in the classroom, in this case, multimedia is the only possible today. The experience of using multimedia technologies shows:

• students' interest in work and their activity sharply increases;

• develops algorithmic style of thinking, formed the ability to make optimal decisions, to act variatively;

• the teacher is released from the mass of routine work, the opportunity for creative activity on the basis of the results.

One of their features is interactive computer graphics. A well-known expert in the field of artificial intelligence D.A.Pospelov formulated three main tasks of cognitive computer graphics.

The first task is the creation of such models of knowledge representation, in which it would be possible to represent by monotonous means both objects characteristic of logical thinking and images-pictures, which operates figurative thinking.

The second task is to visualize the human knowledge, for which it is impossible to find a text description.

The third is the search for ways to move from the observed images-pictures to the formulation of a hypothesis about the mechanisms and processes that are hidden behind the dynamics of the observed pictures. Due to the fact that the basis of the educational process in full-time education are lectures, a form adequate to the level of development of information technology, it is necessary to recognize multimedia lecture courses delivered in specially equipped classrooms. Multimedia courses can also be used for individual distance learning with interactive properties control assimilated knowledge, and for group. Multimedia technologies allow software to connect slides of text, graphics, animation with the results of modeling of the studied processes. This makes it possible to embody at a new qualitatively higher level the classical principle of didactics - the principle of visibility[1].

Multimedia learning technologies - a set of technical training tools (TTT) and didactic learning tools - media (DLT). Technical means of multimedia provide conversion of information (sound and image) from analog, i.e. continuous, in digital

[1] Язык программирования Java.Учебный курс Вадим Валериевич Монаховhttp://barsic.Spbu.ru/index_r.html

(discrete) form for the purpose of its storage and processing, as well as reverse conversion, so that this information can be adequately perceived by man. Technical means of training can be classified according to a number of features: - functional purpose; - the type of training; - the physical principles of the device and work; - the logic of work; - the nature of the presentation of information; - the nature of the impact on the senses. Technical multimedia learning tools usually include:

- multimedia computer with sound stereocarto, drive DVD/CD-ROM drive, sound stereo speakers, microphone, graphics card;
- television tuners and radiotuner (Board receiver and radio), allowing to receive broadcasts and radio broadcasts;
- input devices of video images to a computer for digitization;
- cost to operate the VCR or camcorder; camcorders and digital cameras;
- WEB cameras for teleconferencing and visual communication;
- different screens;
- the device dimming cabinets;
- devices of audio and video reproduction and display of information;
- devices of remote control of technical means[2]. Audio information and especially video information converted into computer form requires a lot of storage space. Therefore, software products that have multimedia properties (textbooks, reference books, encyclopedias, e-learning courses) are distributed, as a rule, on CD-ROM. That is, a DVD/CD-ROM drive is required to use such products. To work with sound and video on the computer developed a variety of software tools that provide playback, editing, recording of audio and video information presented in various formats from different types of devices.

2 Галишникова Е. М. Использование интерактивной доски в процессе обучения // Учитель. - 2007. - № 4. – С. 8-10.

• Variants of application of MLT are very various, but from them it is possible to allocate three main: lecture courses, practical and laboratory occupations, distance learning. The latter is of particular interest. Multimedia learning tools affect the formation and development of human mental structures, including thinking. Printed text until recently, which is the main source of information is based on the principle of abstraction from reality in most languages is organized as a sequence of phrases in the reading order from left to right, which generates the appropriate skills of mental activity, having the same structure as the printed text, which is characterized by features such as linearity, consistency, analytic, hierarchy. Other means of mass communication and information-photography, cinema, radio, television — have a structure significantly different from that of the press. Images and sounds do not direct the train of thought of the listener or viewer from object to object with intermediate conclusions, as in the perception of printed information. Instead, they create models of recognition that address the sensory side of the subject. Just as printed materials and technical means of mass communication have led to a huge expansion of the possibilities of human cognition, fixation and transfer of experience, the computer should increase the potential of human thinking, cause certain changes in the structure of mental activity. In the continuous and distance learning environment created by the MLT, the main processes are the organization and interpretation of multimedia information. It can be encoded and presented on the display screen in the form of mathematical symbols, tables, graphs and diagrams, images of processes supplemented by sound, color images, etc[3].

Multimedia technologies allow the use of visual means of different expressiveness in accordance with the content of the subject and the laws of psychological impact and perception. MLTs allow:

3 Интерактивные технологии в образовании// Учебно-методический комплекс, Российский государственный гуманитарный университет. – Москва, 2005. – 21с.

- to increase the informativeness of the lecture;
- to stimulate the motivation of learning; - to increase the visibility of learning through structural redundancy;
- to realize the accessibility and perception of information through the parallel presentation of information in different modalities;
- visual and auditory (permanent redundancy);
- to create a comfortable working environment for the teacher at the lecture.

The conditions of open learning created by the multimedia information environment should contribute to the development of the learner's thinking, Orient it to the search for obvious and non-obvious system connections and patterns. Really effective can be considered only training, in which students are taught the skills of thinking, and thinking of a new type, in a certain way different from thinking, formed on the basis of operating printed information, the use of mass communication. When implementing the MLT, the ideas not only about thinking are subjected to revision; but also about other mental functions: perception, memory, ideas, emotions, etc. Psychologists and teachers are faced with the problem of conceptual description of the development of human activity and mental functions in the conditions of technologization and use of multimedia in continuous and distance education.

In general using of multimedia technologies in the education:

• Create opportunities for deeper and more perfect mastering of the materials given;

• Establish close contacts with new areas of Education;

• As a result of the reduction in training time, it is possible to save time;

• The acquired knowledge is relatively preserved in the memory of a person for a long time and will be able to apply it in practice at any time.

The rapid development of Information Technology in recent years has given us the opportunity to be new and unique, that is, to use electronic textbooks and multimedia products in educational processes.

The use of multimedia in educational programs complements the analytical capabilities of computers with the possibility of comprehensively describing the subjects of the science being taught as meaningful and imaginative.

It is known that the reader absorbs only a quarter of the information he hears for the first time. If the active participation of the student in the educational process with the help of interactive multimedia technology is ensured, then mastering a new topic can be up to 75 percent. Due to the fact that interactive multimedia has a great emotional – aesthetic effect on the student, great demands should be placed on the quality of multimedia programs, since the product of aesthetically poor multimedia reduces the effectiveness of the learning process and in some cases can also have a negative impact.

From the point of view of creativity and impressiveness, multimedia should be considered a new type of art, as well as the creation of multimedia art theory and Multimedia pedagogy.

Attention should also be paid to the use of rich historical and spiritual heritage of our country, historical monuments, museums. The formation of correct concepts about the life of self-sacrificing people, the changes taking place in the information sphere of the world, the media and the internet provides the basis for the formation of skills to draw the right conclusions in the requirements.

In spiritual and educational work, it is worthwhile to pay special attention to discussions, discussions aimed at the formation of skills of independent thinking in Students-Students. It is a good effect to link and organize the themes with life as much as possible. Taking into account the above, the transition of the lesson using multimedia tools will greatly help in achieving the intended goal in ensuring more interesting, clear, concise and understandable the lesson process.

Methodology of development of didactic education with the use of multimedia technologies

In the preparation of educational multimedia presentations it is necessary to consider, on the one hand, General didactic principles of the educational courses, requirements, dictated by the psychological features of perception of information from the screen and on a printed basis (because any text can be displayed with printer on paper), ergonomic requirements, and to maximize the opportunities that provide us with software tools telecommunications networks and modern information technologies. Naturally, it is necessary to start from didactic and cognitive goals and objectives, because the means of information technology are the means of implementing didactic tasks.

In other words, the effectiveness of multimedia presentations depends on the quality of the materials used(training courses) and the skills of teachers involved in this process. Therefore, pedagogical, informative organization of multimedia presentations (both at the design stage of the presentation and in the process of its use) is a priority. Hence the importance of conceptual pedagogical provisions, which are supposed to build a modern lesson using multimedia presentations. When creating multimedia presentations, consider the following requirements:

Motivation. Motivation is an essential component of learning that must be maintained throughout the lesson process. Of great importance is a clearly defined goal that is set for students. Motivation quickly decreases if the level of tasks does not correspond to the level of training of the student.

Setting a learning goal. The student from the beginning of work at the computer should know what is required of him. Learning objectives should be clearly stated during the lesson.

Creating prerequisites for the perception of educational material. To create prerequisites for the perception of educational material can be useful auxiliary

materials (guidance for the student), included in the textbook or prepared by the teacher.

Submission of educational material. The strategy of presenting the material is determined depending on the educational tasks to be solved. An important problem is the design of the frames supplied to the display screen. It is necessary to use well-known principles of readability.

Assessment. While working with the computer, students should know how they cope with the educational material. The most important is the organization of communication "student-teacher-student". For these purposes, it is recommended to organize the work of students in projects or "learning in cooperation" discussions.

When creating a multimedia presentation, it is necessary to take into account not only the relevant principles of classical didactics, but also the specific principles of using computer multimedia presentations.

The study of the classics showed that teachers - developers of multimedia presentations will be useful. They remain extremely relevant in our time with the most modern educational technologies. Here are some of them:

- allocate each material at a certain step and a small finished parts;

- specify at each stage of the individual parts of the subsequent material and, without allowing significant breaks, bring from it some data to excite the curiosity of the student, not satisfying it, however, in full;

- distribute and arrange the material in such a way that, wherever possible, the next step in the study of the new again repeated the previous.

It is necessary that the material you captured. The use of well-known authoritative sources, brands and concepts could make people treat it with great interest. The use of a variety of graphics, animation and simulation should enhance the attractiveness of interactive courses

The use of multimedia technologies for the creation of electronic materials dictates its own laws and imposes certain requirements on the approaches and methods of development.

Multimedia educational presentations are designed to help the teacher and allow you to conveniently and clearly present the material. Applying even the simplest graphical tools is extremely effective.

Masterfully made presentation can attract the attention of students and awaken interest in learning. However, you should not get carried away and abuse the external side of the presentation associated with special effects. If you overdo it, you will reduce the effectiveness of the presentation as a whole. It is necessary to find such a balance between the material and the accompanying effects that your students literally " sat on the edge of the chair." This rule is true for all multimedia presentations in General, but especially for training presentations.

The following principles should be followed when creating a scenario diagram and drafting text accompaniment to a multimedia presentation:

• The presentation should be concise, accessible and compositionally complete. The duration of the presentation with the script should be no more than 20-30 minutes. For the demonstration, you need to prepare about 20-25 slides (one slide takes about 1 minute, plus time to answer questions from the audience).

• Several key points should be highlighted in the presentation and revisited from time to time during the demonstration to highlight the issue from different angles. This ensures proper perception of the information by your listeners. Don't be afraid to repeat your thought if you want it to be understood.

The following outline will be useful when you are working on your own presentation.

• Before you start working on your presentation, you should have a full understanding of what you are going to talk about.

• There should be nothing superfluous in the presentation. Each slide should be a necessary part of the narrative and work on the overall idea of the presentation. Unsuccessful slides must be merged with others, moved or deleted altogether.

• Use ready-made templates when choosing character style and background color. Don't be afraid to be creative. Experiment when placing graphics and creating special effects.

• Do not overload slides with unnecessary details. Sometimes it is better to present several simple slides instead of one complex one. You should not try to "cram" too much information into one slide.

• Additional effects should not become an end in itself. They should be kept to a minimum and used only to draw the viewer's attention to the key points of the demonstration. Sound and visual effects should never come to the fore and obscure useful information.

A multimedia presentation should have the following qualities:

• User-friendly navigation system that allows you to easily navigate the presentation

• Use of multimedia capabilities of modern computers and the Internet (graphic inserts, animation, sound, if necessary, etc.).

• Breakdown of the lesson into small logically closed blocks (slides).

• Each slide in your presentation should have a title.

• References to literature, digital libraries and sources of information on the Internet.

• Accessibility-fast loading, without complicating the effects.

When you create a multimedia presentation, you must:

• conduct a breakdown of the lesson into small semantic parts-modules. Each slide should have a title;

• selection of the appropriate form of expression for each module and presentation of the section title, texts, figures, tables, graphs, sound and video, etc. (according to the content);

• modeling of cognitive activity of students in the study section and the use of the results in its preparation (determined by the main sequence of transition between slides);

• design of ways to consolidate knowledge and skills and implementation of feedback (selection of tasks, control questions, tasks for modeling, development of methods of analysis of answers, replicas of typical wrong answers, preparation of tips (help));

• preparation of texts, development of drawings, tables, diagrams, drawings, video, according to the requirements of ergonomics; arrangement of modules of each section of the lesson from an ergonomic point of view.

Each module to the maximum includes:

• Text mental attitude

• Objectives of the module

• Training issues

• Training material

• Set of key issues related to the module

• The best work of students of past groups

• New works of students

• Questions for self-examination and reflection(preferably with answers, comments and recommendations)

• Structural and logical scheme of the module

• References to the module and links to Internet sites on the subject of the module. When creating multimedia presentations, it is necessary to take into account the peculiarities of perception of information from the computer screen.

You must maintain a consistent presentation style for the entire lesson and strive to unify the structure and form of presentation of educational material (unification of the user interface, the use of graphic elements, the creation of lesson templates). It is recommended to use standard fonts - Times, Arial. It is best to limit the use of two or three fonts for the entire presentation. For example, the main text of the presentation is times New Roman, the title of the slide is Arial.

It is advisable to use different markers, etc.) to highlight text elements (bulleted lists). For example:

- Text 1
- Text 2
- Text 3
- Text 4

It is recommended that you use color in your presentation, most effectively highlighting individual pieces of text with color and individual table cells or the entire table with color (cell background or table background). The entire presentation is done in a single color palette, usually based on a single template.

It is important to test the presentation for readability from the computer screen. Presentation texts should not be large. It is recommended to use a concise, informative style of presentation.

When creating a multimedia presentation you need to solve the problem: as with the maximum information saturation of the product to ensure maximum simplicity and transparency of the organization of educational material for the student.

One of the ways to solve this problem is to limit both the ways of presenting the training material and the set of navigation objects. In this case, the student, quickly mastered the features of the interface of this presentation, in the future will not be distracted by it, focusing all attention on the content of educational

information. When creating a multimedia presentation, the teacher faces a number of challenges:

- the need to create a simple and intuitive interface in which educational information is visually combined with the means of navigation;

- definition of the structural organization and form of presentation of educational material corresponding to the set pedagogical goals.

The main purpose of the proposed approach is to focus on the study of the process of organizing content and presenting it in the form most convenient for the perception of the trained audience.

An important point is the choice of the overall presentation style. When defined presentation class, category of trainees, then make the choice of style becomes easier. To choose the right style, you need to know the principles of ergonomics, which include the best, proven methods of using certain components of a multimedia presentation. Considering this stage, you can analyze several presentations in detail, identifying their shortcomings and suggesting ways to fix them.

It is necessary to be able to contain a maximum of information in a minimum of words, to attract and keep the attention of students. Simply copying information from other media and placing it in a presentation is no longer enough.

Once the "highlight" is found, you can begin to develop the structure of the presentation, build a navigation scheme, select tools that are more consistent with the intentions and level of the lesson. To ensure the didactic functions of the educational and methodical complex, the following requirements are imposed on the multimedia presentation:

1. Text fragments can be accompanied by audio or video information to highlight semantic accents. It is recommended to use a multi-window interface to present heterogeneous or hypertext information.

2. The multimedia presentation may contain additional material, as well as material for in-depth study of the topic.

3. The most important elements of a multimedia presentation should have hints or explanations. The reference material of the presentation contains the main definitions, the most important dates of the history of Informatics, tables for comparing certain characteristics of objects, etc.

4. After studying each structural unit of the training material, the presentation contains material for generalization, presenting the studied material in a more concise form.

5. Multimedia presentation should be open for development.

6. The text of the multimedia presentation should be able to copy, print.

When preparing multimedia presentations, the teacher should use the Internet, modern multimedia encyclopedias and electronic textbooks. Over time, the network will have the best multimedia presentations to use them as a base in the preparation of the lesson.

When creating a presentation, you should find as many points of contact between the subject and the "external" information flows as possible. This allows you to make the presentation more interesting, relevant and exciting.

The multimedia tools used in the presentation help to communicate more effectively with the learners. Plan in advance all aspects of its conduct.

Flexibility is one of the foundations of a successful presentation. Be prepared to make changes as the presentation progresses in response to the students ' reactions.

A presentation can have two versions for teacher and student. Electronic presentation is constantly updated with new materials and improved. For the student, his presentation is supplemented by personal works. Modern software and hardware make it easy to change the content of the presentation and store large amounts of information. Stages of multimedia presentation preparation:

- Structuring of educational material
- Development of the implementation scenario

- The design of the presentation
- Preparation of media fragments(texts, illustrations, video, recording audio fragments)
- Preparation of musical accompaniment
- Testing-verification
- 3 methods of using multimedia presentations.

Forms and place of use of multimedia presentations (or even a separate slide) in the classroom depend, of course, on the content of the lesson, the goal set by the teacher. However, practice allows us to identify some common, the most effective methods of application of such benefits:

1. In the study of new material. It allows you to illustrate a variety of visual AIDS. The application is particularly beneficial in cases where it is necessary to show the dynamics of any process.
2. When pinning a new topic
3. To test knowledge, Computer testing is a self-examination and self-realization, it is a good incentive for learning, it is a way of activity and expression. For a teacher it is a means of quality control of knowledge, a programmed way of accumulating assessments.
4. To deepen knowledge as additional material to the lessons.
5. When checking the front independent work. Provides along with oral visual control of the results.
6. When solving problems of educational nature. Helps to execute the drawing, to make the decision plan and to control intermediate and final results of independent work on this plan
7. A means of emotional relief. During the block lessons or long consultations before exams-it is necessary to include video sequences of experiments or cartoons at the same time the students disappear fatigue, there is interest, they are looking for

answers, turn to the teacher with questions, charged with new energy. Multimedia programs look like a video, but with the ability to intervene in the course of action and dialogue.

8. As a means to making distributing didactic material, codogram and cards. Personal computer in the hands of teachers, in addition to the scanner and printer is a mini-printing office of a teacher.

In educational activities, the use of the computer is possible in three forms,

1) the machine as a simulator,

2) the machine as a tutor, performing certain functions for the teacher, and such that the machine can perform better than a person.

3) device that simulates a certain environment and the actions of specialists in it.

Training systems are most appropriate to apply to consolidate previously acquired skills. Tutoring systems are best used provided that the goals and objectives of training are clearly defined. Simulation training modeling is most suitable when the training material is not systematic and its boundaries are not clearly defined.

When using a multimedia presentation, it can be used in a classroom system or use new models of its application. It is possible to note a method of projects as the most perspective pedagogical technology which allows to open most fully creative abilities of school students, to form ability to be guided in the huge sea of information, focusing attention on the main thing, to take responsibility and to make decisions. Of course, the method of projects requires the highest qualification of the teacher, creative approach to the school curriculum, the ability to aggregate knowledge in several subjects and, of course, organizational skills. The use of information technology in the project at school and, of course, in the development of materials for it, was decisive, breathed new life into the well-known design methodology for a long time. The main components of the project method are the research work of schoolchildren and the evaluation of this activity

Of all the tools of cognition, multimedia is the best way to represent knowledge in a variety of ways, including all the modalities of perception. Working with multimedia tools, students have at their disposal a rich Arsenal for self-expression of the studied material. Multimedia implements a more creative approach to the process of assimilation and presentation of knowledge.

A learning system in which students acquire knowledge and skills in the process of planning and performing progressively more complex practical tasks-projects. One of the personality-oriented technologies, a way of organizing independent activities of students, aimed at solving the problem of the educational project, integrating the problem approach, group methods, reflexive and other techniques.

In our opinion, the most progressive possibilities of multimedia are to use them in the educational process as an interactive multi-channel learning tool. The research, project approach in the system of education of schoolchildren, the development of their own multimedia / hypermedia projects, the constant use of multimedia for educational purposes in all blocks of disciplines of General cultural and subject training, allow to transform the traditional learning process into developing and creative.

Information technology allows students to give a unique opportunity to learn a new concept independently of the teacher, to notice a pattern, to put forward their own hypothesis, to feel how mathematical questions arise.

The ability to use the method of projects-an indicator of high qualification of the teacher, his progressive methods of teaching and development of students. No wonder these technologies are referred to the technologies of the XXI century, assuming primarily the ability to adapt to the rapidly changing conditions of human life of post-industrial society. But it should also be noted that the project method can be useful only if it is used correctly, a well-thought-out structure of the projects and the personal interest of all project participants in its implementation.

Teaching methods have a close relationship with the nature of presentation and perception of information for both the learner and the trainer. And in connection with this fact it should be noted that the use of multimedia technologies significantly affects the nature of the presentation of information, and, consequently, on the methods of teaching

There are opportunities to use the methodical technique of do as I do – it is a joint activity of the teacher and the student.

Or the presentation option is not brought to the end, and the student is invited to illustrate the text.

Game teaching methods are widely used.

Multimedia elements create additional psychological structures that contribute to the perception and memorization of the material, for example, the summing up of each presentation is preceded by a certain sound or melody that sets the student to a certain type of work.

The most effective use of combined teaching methods. In computer science classes it is recommended to combine both traditional forms of education (conversation, lecture, self-study, group activity with visual display on the computer) and various new forms of organization of educational activities (project method, work in small groups, game methods, extensive use of individualized training programs, training testing). It is reasonable and appropriate to use the creative potential of students. The organization of students ' work on the creation, development and design of specific Web pages contributes to a significant increase in their cognitive activity. This work is usually accompanied by a deep inner motivation, allows you to connect teachers and students, to show ingenuity and imagination, to achieve self-expression. Computer science education traditionally uses computer training programs for a number of reasons. Firstly, one of the main developers of computer training programs were specialists in the field of computer science, and secondly, the formal language descriptions of algorithms allowed to

produce high-quality automated control of grammatical structures, and, thirdly, the content of a number of sections of computer science is well structured, which contributes to its computer representation. The most productive and promising areas of use of the Internet by students are: interpersonal communication, search for additional information on various academic disciplines, familiarization with educational projects, self-production of Web sites. Current research on the use of multimedia has identified the following problems:

• personalized learning styles are not taken into account when using multimedia. In other words, the real individualization of learning through the use of multimedia occurs only if the cognitive style of the author of multimedia programs with the style of the user;

• do not take into account the communicative or socio-cognitive aspects of learning. The introduction of graphics, video images and audio information does not solve the problems of ensuring effective communication, which has a significant emotional (and therefore motivational) impact on the student;

• the introduction of different types of media exposure (including sound, graphics, video, animation) does not always solve the problem of improving perception, understanding and memorization of information, and sometimes interferes with the perception of students due to noise channels;

• the lack of preparedness of teachers to free use of multimedia in education due to low media literacy (the ability to make informed choices of media tools to achieve educational goals, knowledge opportunities and modern trends in the development of multimedia capability of developing multimedia educational purpose for the Assembly of multimedia modules);

• the problem of rejection of existing programs and resources, which occurs for reasons of inadequacy multimedia programs real educational process;

• the use of multimedia as a new didactic tool in traditional learning systems does not allow optimal implementation of educational and developmental

multimedia resource; Thus, traditional learning technologies should be replaced by new information educational technologies. With their help at lessons such pedagogical situations in which activity of the teacher and pupils is based on use of modern information technologies, and has research, heuristic character have to be realized. For the successful implementation of these technologies, the teacher should have the skills of a PC user, to possess the skills to plan the structure of action to achieve the goal based on a fixed set of funds; to describe objects and phenomena by building information structures; to conduct and organize e-discovery; to clearly and unambiguously formulate the problem, task, idea, etc. currently, schools are formed the conditions for solving most of the problems listed above. Crystallized the essence of new information technologies - providing access to teachers and students to modern electronic sources of information, creating conditions for the development of the ability to self-learning through the organization of research and creative educational work of students aimed at the integration and updating of knowledge gained in various subjects. The reform of modern education can take place only if electronic sources of educational information are created.

Using multimedia technologies in higher education.

Trends in the development of the modern system of higher education are inextricably linked with the widespread introduction into the educational process of various forms, methods and means of active learning.

One of the leading trends in the informatization of society is the development of multimedia technologies, their penetration into various spheres of social life: production, business, science, education, mass consumer culture. Providing a wealth of content and form, a combination of different types of text, graphics, speech, music, video, photo information and a variety of ways to extract them, these technologies form a multimedia perception of the world

The use of multimedia technologies opens up new opportunities in the organization of the educational process, as well as the development of creative abilities of students. For the effective implementation of active learning methods requires a large and serious work to equip a sufficient number of computers, as well as in the preparation of methodological and information base in the organization of the educational process. This will ensure the implementation of methods of active training in improving the quality of training, taking into account the increased requirements in the market.

Currently, multimedia technology is one of the most rapidly developing areas of new information technologies in the educational process.

The first task is to create such models of knowledge representation, in which it would be possible to represent by monotonous means both objects characteristic of logical thinking and images-pictures, with which figurative thinking operates. The second task is to visualize the human knowledge for which it is not yet possible

choose text descriptions. The third is the search for ways to move from the observed images-pictures to the formulation of a hypothesis about the mechanisms and processes that are hidden behind the dynamics of the observed pictures.

Thus, the obvious advantages of using multimedia technologies (operational use of information, connection of audio and visual material, etc.) in the organization of the educational process are not in doubt. The use of such technologies has substantially increased the educational information that makes it more clear to read and easy to digest.

The joint efforts of education workers, scientists, programmers, manufacturers of multimedia teaching AIDS and teachers-practitioners create a new information educational environment in which the integration of educational and information approaches to the content of education, methods and technologies of training becomes decisive.

Multimedia technologies are one of the most promising and popular areas of computer science. They aim to create a product containing " collections of images, texts and data accompanied by sound, video, animation and other visual effects (Simulation), including an interactive interface and other control mechanisms." This definition was formulated in 1988 by the largest European Commission dealing with the introduction and use of new technologies.

The ideological prerequisite for the emergence of multimedia technology is considered the concept of memory organization "MEMEX", proposed in 1945 by the American scientist van Niver Bush. It provided for the search for information in accordance with its semantic content, and not on formal grounds (in order of numbers, indexes or alphabetically, etc.) This idea found its expression and computer implementation first in the form of a system of hypertext (a system working with combinations of text materials), and then hypermedia (a system working with a combination of graphics, sound, video and animation), and finally, in multimedia, combining both these systems.

However, the surge of interest in the late 80-ies to the use of multimedia technology in the Humanities is associated, of course, with the name of the outstanding American computer scientist-businessman bill gates, who owns the idea

of creating and successfully implementing in practice a multimedia (commercial) product based on the service Museum inventory database using all possible "environments": images, sound, animation, hypertext system ("National Art Gallery. London").

The modern education system is increasingly using information technology and computer telecommunications, which is facilitated by a number of factors, and, above all, - equipping educational institutions with powerful computers and the development of the Internet community.

The scope of application of computers in teaching and research is vast. It is possible to allocate the following priority questions of integration of computer technologies in educational process:

- psychological and pedagogical cycle,
- systematization of educational computer tools;
- consideration of the role of the global INTERNET in learning.

Each teacher has his own style of work. Someone used to work at the blackboard, someone prefers to explain the material, sitting at his Desk or standing at the podium, someone easier and more accustomed to move freely around the audience.

But, be that as it may, many teachers are faced with the need to demonstrate visual materials. Lecture and seminar form of education should be combined with modern innovative solutions.

Studying foreign experience, it is possible to allocate the following important aspect: the teacher acts not as the distributor of information (as it is traditionally accepted), and as the consultant, the adviser, sometimes even the colleague of the trained. This gives some positive aspects: students are actively involved in the learning process, learn to think independently, to put forward their points of view, to simulate real situations.

The use of multimedia technologies allows the teacher to manage the demonstration of visual material much more effectively, organize group work and create their own innovative developments, while not breaking the usual rhythm and style of work.

Training multimedia capabilities

The word "multimedia" has become popular since the 90s of the 20th century.

Multimedia - (eng.) multi-component environment that allows the use of text, graphics, video and animation.

"Multimedia" means the ability to work with information in a variety of ways, not just digitally, as with conventional computers. Multimedia computers allow you to play sound (music, speech, etc.), as well as video information (videos, animated films, etc.). Video effects can be represented by showing removable computer slides, cartoons, video clips, moving images and texts, changing the color and scale of the image, its flickering and gradual disappearance, etc.

Multimedia programs use certain way of transmitting information:

1. Interaction of various information blocks (text, graphics, video clips) by means of hyperlinks. Hyperlinks are presented in the form of specially designed text, or in the form of a specific graphic image. Several hyperlinks can be placed on the screen at the same time, and each of them determines its route.

2. Interactivity, that is, the user's dialog mode of work with the source, in which he can independently choose the information he is interested in, the speed and sequence of its transmission.

The multimedia computer for training includes additional equipment: CD-ROM drive, head phones, sound speakers. Classroom demonstrations require a special projector and screen.

The use of multimedia programs in the classroom places high demands on the computer: memory capacity, sound reproduction equipment, high-speed drive mode for CD-ROM or DVD-ROM.

The increased productivity of computers has made possible the widespread use of multimedia technologies in education.

A wide range of images, the active inclusion of creative thinking in the educational process help the student to perceive the proposed material holistically. The teacher has the opportunity to combine the presentation of theoretical information with the demonstration material.

Multimedia technologies provide a representation of information in which a person perceives it with several senses in parallel, rather than sequentially, as is done with conventional training. With the combined impact on the student through vision and hearing and involving him in active actions, the share of assimilation of educational material can be 75 %.

Educational multimedia programs are used for frontal, group and individual training in the classroom, as well as for independent work at home. They offer the user a lot of options for individual customization: the student, mastering the learning material, he sets the speed of learning, the amount of material and the degree of its difficulty.

Positive factors that speak in favor of this method of obtaining knowledge, the following:

1. Better and deeper understanding of the material being studied.
2. Motivating the learner to contact a new area of knowledge.
3. Time savings due to a significant reduction in training time.
4. The acquired knowledge remains in memory for a longer period and is later more easily restored for practical application after a brief repetition.

One of the first names of the lessons, which uses computer equipment and software, lessons with computer support (UCP). This term was influenced by the term common in English - speaking countries - CBT (Computer Bases Training) - computer support of training.

The widespread use of multimedia later gave rise to a new name for such lessons - "multimedia lesson". For a more convenient pronunciation, the name was shortened, and now the most commonly used is the media lesson. In fact, all three terms can be used in the same meaning.

Media lesson has its own methodological capabilities and advantages:

- improving the efficiency of the educational process due to the simultaneous presentation of theoretical information by the teacher and display of demonstration material with a high degree of clarity; the emergence of opportunities to model objects and phenomena; automation of routine operations, etc.;

- the opportunity to teach students to use computer technology to solve educational and labor problems, through the practical processing of educational information on the computer;

- organization of individual work of schoolchildren, development of their cognitive independence and creativity;

- increased motivation to study due to the attractiveness of the computer, which increases due to multimedia effects;

- development of visual and imaginative thinking, motor and verbal communication skills of students;

- formation of skills of work with information (to make search, selection, processing, ordering and allocation of semantic groups, building of logical connections, etc.), formation of information culture of school students.

Methodological foundations of media lesson design

During the media lesson two new components of the educational process participate in the transfer and assimilation of educational information:

1. Computer organically takes the place of a new universal technical means of learning and development.

2. The software complements the traditional technology of teaching a school subject or its individual sections and topics. They contain clearly structured

educational information in text form, a lot of visual images in the form of diagrams, drawings, tables, videos, equipped with animation and sound effects.

The computer and software should be seamlessly interconnected with other components of the learning process: objectives, contents, forms, methods of teaching, activities teacher and learner.

What changes does the use of computer and multimedia programs entail?

First of all, the didactic principles of teaching are expanded and enriched. In recent years in didactics there has already been a revision of the meanings of such principles as visibility, accessibility, systematicity, consistency, consciousness. Two new principles were defined - individualization of learning and activity.

Currently, the leading position in the formation of components of educational activities with the use of computers put forward the principle of integrativity. It involves the establishment of integrative links by the teacher, which allow to better represent the characteristics of the subject, to show the relationship between the content of individual subject educational sections and modules, between subject learning and General information training of students. The established connections allow to include the computer organically in educational process, to combine traditional and computer methods of training, to create the special information pedagogical environment promoting intensification of educational process.

Taking into account integrative relations leads to the correction of pedagogical goals. The priority goal of media lessons is to develop in the learning process the abilities of students to productive independent creative activity in the modern information-rich environment. Taking this into account, when developing a media lesson, the teacher sets not only educational tasks on the subject, but in the triad of tasks (educational, educational, developmental), additionally allocates tasks for the formation of information culture components. It can be: development of abilities to select the necessary information, acquaintance to new ways of technical processing of information, formation of practical skills on computer processing of information,

etc. For example, in physics lessons, the formation of students ' skills to conduct a computer model experiment, or when typing on a computer dictation text development of skills on the keyboard simulator, the development of skills to establish cause-and-effect relationships using the hypertext timeline and historical events, etc.

If the teacher uses computer technology only for visual demonstration of educational information, the lesson is conducted in the classroom with one set of hardware.

The work of students in the classroom can be organized as follows:

- front-view video fragments, observe changes in objects,
- individually - implementation of practical work, problem solving,
- small groups-implementation of the General educational project, statement of model experiment, etc.

The structure of the lesson can reflect all the components and links of the learning process, as well as the mandatory alternation of activities at the computer and without it:

- updating (repetition of educational material, primary assimilation of material) - at the computer and (or) without a computer;
- formation of knowledge, skills (awareness and understanding of the block of educational information, consolidation of educational material) - at the computer and (or) without a computer;
- application (application of educational material in practice, checking the level of assimilation of the material) - at the computer and (or) without a computer.

The choice of optimal organizational forms and methods is up to the teacher.

Software and hardware used in the classroom, make their own specifics, contribute to the improvement of traditional teaching methods. The role of the teacher is also changing. In the media lesson, he often acts as a consultant, which contributes to the development of cognitive activity of students, more complete

assimilation of educational information. For the teacher there are more opportunities for individual work with students.

Of course, the skillful combination of traditional and information means depends on the qualification and skill of the teacher, the methodology that he uses. But the competent use of it tools depends on the knowledge of the teacher of pedagogical bases on Informatization of lessons.

Software mediaproxy

The organization of the educational process with the help of multimedia technologies involves the use of special software products, among which are:

- electronic textbook;
- training and testing programs;
- presentations.

Multimedia software implements the following types of training:

- view information in audiovisual form;
- theory training using exercises;
- control;
- work with a dictionary of terms and concepts;
- work with other components of the complex connected to the local network, simulators.

Verbal: story, conversation, explanation, instruction Spoken word, printed word (textbooks and manuals, books). The leading medium is the living word, which is easily combined with other means of learning. Allows in a short time to enrich the memory of students generalized scientific knowledge. Submission of text information from the screen, the message of knowledge (the text is read by the speaker of the program). The ability to repeatedly repeat exactly the same content. Hyperlinks allow you to quickly find the information you need.

Visual: demonstration of the layout, demonstration of labor reception or operation, screen demonstration of Natural objects, models, layouts, collections,

tables, posters, diagrams, illustrations, videos. Static demonstration from the screen. Observation of stationary objects. Multimedia display of techniques and operations; virtual transformation of objects in space and on the plane; visualization of processes that are impossible to consider in real conditions. Better assimilated educational information, as all the senses are involved

Practical: exercise, practical and laboratory work Training tasks for practical work. Educational practice when performing exercises, practical and laboratory work Virtual practical action, planar and spatial modeling of objects, automation of individual operations. There is a logical processing of practical material, the number of organizational moments decreases

Methods of control: oral and written op-Test or control task, questions and problem situations. Check Machine instruction and control.

Viewing the theoretical material is to present the student pages of information in the form of text and graphics screens, cartoon inserts, video clips, demonstration and illustrating programs. Students have the opportunity to turn pages of information forward or backward, look at the theory from the beginning or from the end, to find the desired section of the table of contents.

This mode uses elements of hypermedia technology. By keyword (marked term of the educational text) the student can get its definition, look at the pages of any type connected with it (text, graphic, etc.). In the course of working with hypertext automatically generated skill with multimedia computer, with which the student can return to any stage of viewing the theory. At any time, the theory can be interrupted at the request of the student.

The mode of training of the theory provides for the presentation of student exercises (questions and problems with sample responses task with a numeric answer, questions and tasks design responses). Each exercise is followed by a message about the correctness of its implementation, and the student is given the opportunity to see the appropriate comments for this exercise (explanations of

typical errors, etc.). Information pages can also act as comments. The training mode can be complete and selective. In full training, all exercises of the multimedia product can be presented in the order in which they were prepared by its developer. Provides sample exercises sample exercises using elements of chance. The number of exercises in the sample is set by the student.

Thus, the obvious advantages of using multimedia technologies (operational use of information, connection of audio and visual material, etc.) in the organization of the educational process are not in doubt. The use of such technologies has substantially increased the educational information that makes it more clear to read and easy to digest.

Implementation of active learning methods based on an electronic textbook

There was a time when people stored information on clay tablets, papyrus etc. media. But time does not stand still, instead they came to paper, there were Newspapers, books, which seem to have been disadvantages, for example: it is very easy to destroy, lose, but there were a lot of advantages - cheapness of manufacture, ease of handling, ease of use, etc.So people switched to paper.

But progress does not stand still, and the old one was replaced by a more convenient media, which gradually developed and is still constantly evolving. As a result, electronic versions of ordinary books, publications, and later books in General, existing only in electronic form, became widespread. The number of such books, as well as simply digitized, is increasing every day. Why did they become so widespread?

E-books have many advantages that distinguish them from printed publications.

First, modern information should be fresh and necessary at the moment, as science and technology do not stand still, but are developing very rapidly. And, for example, if we are talking about books on computer subjects, in a year or two they may be simply unclaimed and outdated. Electronic publications that are outdated, it

is very easy to remove, because they occupy a minimum of space and their price is much lower than that of printed publications.

Secondly, in electronic publications it is very convenient to organize a search if you want to find any information on keywords, phrases or expressions. I don't think you can do that with a regular book. Another advantage of the computer textbook is its flexibility. It is easy to change, it is easy to Supplement.

Third, e-books have a very small volume, i.e. on one or three discs fit exactly as many books as can hardly fit in a large bookcase.

The main drawback of electronic publications is that the book can not be read everywhere. To do this, you need to have a computer, laptop, pocket PC, smartphone, etc. or at least a printer to print the desired number of pages if necessary.

What is an "Electronic textbook" and what is its difference from a conventional textbook? Usually an electronic textbook is a set of training, monitoring, modeling and other programs placed on magnetic media (hard or floppy disks) PC, which reflects the main scientific content of the discipline.

"Electronic textbook" often complements the usual, and is especially effective in cases where it:

- provides almost instant feedback;

- helps to quickly find the necessary information (including contextual search), the search for which in a conventional textbook is difficult;

- saves time with multiple references to hypertext explanations;

- along with a short text-shows, tells, models, etc. (this is where the opportunities and advantages of multimedia technologies are manifested), allows you to quickly, but at a pace most suitable for a particular individual, to test the knowledge of a particular section. The disadvantages of EC can be attributed to the higher cost compared to the book, firstly, and, secondly, the fact that the perception of the screen text information is much less convenient and effective than reading a book. Multimedia technologies are widely used in distance learning, and electronic

textbooks play a key role here. The advantages of these textbooks in the process of distance learning are: first, their mobility, secondly, accessibility in connection with the development of computer networks, and thirdly, the adequacy of the level of development of modern scientific knowledge. On the other hand, the creation of electronic textbooks also helps to solve the problem of constant updating of information material. They can also contain a large number of exercises and examples, illustrated in detail in the dynamics of different types of information. In addition, with the help of electronic textbooks, knowledge control is carried out-computer testing. The use of a computer textbook opens up new opportunities in the organization of the educational process, as well as the development of creative abilities of students. The advantages of a computer textbook are individualization of learning by selecting each student desired learning material and change the sequence of study, taking into account their individual capabilities, as well as the possibility of self-control.

The practice of using electronic textbooks has shown that students qualitatively assimilate the material presented, as evidenced by the results of various tests. Thus, the development of information, including multimedia, technologies provides a broad opportunity for the invention of new models and methods of education, thereby improving the quality of education. The structural organization of the electronic textbook in the market of computer products every year increases the number of training programs, electronic textbooks, etc. At the same time, disputes about what should be an "electronic textbook", what functions are assigned to it in the duty, do not cease. Traditional construction of an electronic textbook: - presentation of educational material; - practice; - testing. Currently, the following requirements apply to textbooks:

1. Information on the selected course should be well structured and represent complete fragments of the course with a limited number of new concepts.

2. Each fragment, along with the text, should present information in audio or video ("live lectures"). A mandatory element of the interface for live lectures will be a scroll bar that allows you to repeat the lecture from any place.

3. Text information may duplicate some of the live lectures.

4. In illustrations representing complex models or devices, there should be an instant prompt that appears or disappears synchronously with the movement of the cursor on individual elements of the illustration (map, plan, diagram, Assembly drawing of the product, object control panel, etc.).

5. The text part should be accompanied by numerous cross-references to reduce the search time of the necessary information, as well as a powerful search center. A promising element can be the connection of a specialized explanatory dictionary for this subject area.

6. Video information or animations should accompany sections that are difficult to understand in the usual presentation. In this case, the time spent for users is five to ten times less compared to a traditional tutorial. Some phenomena are impossible to describe to a man, never experienced (falls, fire, etc.). Video clips allow you to zoom in and out and show phenomena in fast, slow, or selective shooting.

7. The presence of audio information, which in many cases is the main and sometimes indispensable part of the textbook content.

Modes of operation of the electronic textbook

There are three main modes of operation of the electronic textbook:

1. Training without test;

2. Training with the test, in which at the end of each Chapter (paragraph) the student is asked to answer a few questions to determine the degree of assimilation of the material;

3. Test control, designed for the final control of knowledge with the assessment.

Currently, the following requirements apply to textbooks:

- structuredness;
- easy handling;
- visibility of the material.

To meet the above requirements, it is advisable to use hypertext technology.

The electronic version of the textbook accommodates the means of control, as the control of knowledge is one of the main problems in learning. For a long time in the domestic education system, knowledge control, as a rule, was carried out orally. At the present stage, various testing methods are used. Many, of course, do not share this position, considering that the tests exclude such necessary skills as analysis, comparison, etc.

It is known that for active mastering of a specific subject area it is necessary not only to study the theory, but also to form practical skills in solving problems. To do this, you need to learn how to build mathematical models of the studied processes and phenomena, design solution algorithms and implement them in the form of programs. To achieve this goal, the EC includes a series of model programs that provide a graphic illustration of the structure and operation of the algorithms, which not only improves their understanding, but also contributes to the development of the student's intuition and creative thinking.

Thus, it is hoped that the use of new information technologies contributes to the effectiveness of training, as well as an indispensable tool for self-training of students.

Currently, computer-based training programs are widely used as active learning tools. Computer training programs in any case will not replace the teacher. High-quality multimedia programs will serve as a good addition to the training course, they can be successfully used in courses, electives, additional classes. They are convenient for independent work. It is difficult to imagine a modern educational institution without computers, and therefore without training computer programs.

This is a very promising means of learning, involving visual memory, based on associative thinking. They are the future.

The history of training programs has about three decades. At first, these were the simplest basic programs used in the Norton Commander shell. To understand how they work, you had to first learn how to work on the computer - or ask friends, or sit over books, or sign up for computer courses. But still, it was easier just not to be afraid of the computer and get acquainted with it "by scientific nudge." And now-the novice user is offered a choice of a lot of opportunities. Including multimedia tutorials. And we can only envy the current "teapots". And if ten years ago multimedia training programs were not available, now the situation is completely the opposite: on the shelves of so many that it is very difficult to choose.

A large selection does not always imply a good quality of the products offered. Most often you have to buy a "pig in a poke". The seller cannot advise anything, because he cannot test all the discs that he sells.

Of course, it is best to purchase licensed products. As a rule, its development takes much more time and effort, and it turns out a much better product than the pirates, whose main goal is to do everything quickly, without much thought about the quality. Such disks are created in a week, filled with scanned information from paper books, contain a large number of typos. The software shell is the same for all products. Of course, there is nothing wrong with a single software shell, only when it is made qualitatively by professional programmers. On top of that, such discs often lack design.

It takes time to create a decent training program - it can take a year or more to create a good product. You can list several companies that produce quality training programs.

Training programs are usually distributed on discs sold in specialized computer stores. Discs can be ordered in the online store, paid for and received by mail.

Multimedia presentation is an opportunity to combine sound effects and musical compositions, computer animation and video, texts, tables and photos. The whole presentation should be United by a common idea and can have a sound in any language.

Multimedia presentations combine the visibility of corporate video, informative printed brochures and interactive websites.

The main media for multimedia presentations today are CDS and DVDs. Multimedia presentations themselves differ in their functionality and are divided into two categories:

1. CD presentations-are used in cases when reliability and performance on various configurations of personal computers are necessary. And also if the multimedia presentation consists of a large number of audio-visual materials.

2. PowerPoint presentations - an indispensable tool for the development of quickly changing multimedia presentations. With the development of computer technology, a new type of promotional presentation products in the form of computer CD presentations with recorded structured information, accompanied by photos and videos, 3P graphics and sound track. The main advantage of CD presentations in comparison with conventional printed materials (booklets, brochures, etc.) is that the CD contains a very large amount of diverse information. A computer CD presentation is a CD with a self-starting interactive software module that starts when the user inserts the CD into the computer. Each presentation has its own unique design and interactive menu system. Text information is supplemented by a large number of slides and videos. A CD presentation can include a movie or a three-dimensional video. Multimedia presentations today-is the main standard of presentation of information in the business, which replaced the paper corporate brochures, catalogs, annual reports, flyers and press releases. The relative cheapness of CD media, on which multimedia presentations are recorded, make it possible for their mass distribution, both among potential customers of the company together

with printed materials, and mass mailing. Thus, the client has the opportunity in his office or at home at the computer to study the goods of interest to him or to get acquainted with the activities of the company and its technologies.Professionally made multimedia CD presentation during viewing will create a specific atmosphere that will not leave the user during the entire viewing.

Well-structured illustrative material will convey to the client all the necessary information. This eliminates the waste of time searching and parsing data in booklets or catalogues, as in multimedia presentations all information is initially structured and arranged in a sequential thematic order.

In the educational process, the presentation is designed to create interactive learning material. The image from the screen allows to give a visual row, and not to lose time, being distracted by legible writing of the text on a Board.

The main tool for creating presentations is the Microsoft PowerPoint program.

You don't have to be an artist to create videos using Microsoft PowerPoint. The design templates provided with the program provide high quality results, and the use of all the features of Microsoft PowerPoint allows you to create spectacular projects.

Multimedia presentations made by means of Power Point are an alternative "budget" version of CD-presentations, for the performance of which an individual software module is developed.

Power Point presentations have almost all the features that are present in conventional CD presentations:

- development of a single concept and style of design and navigation menu;
- unlimited interactivity;
- placement of photos and slides of any format;
- placement of various text materials;
- insert video clips or animations;
- use of sound effects, music and narration text's.

But the most significant advantage of PowerPoint presentations is that the presentation can be edited by a person with a low level of training in computer technology.

Means of creating e-learning systems

Electronic textbooks can be created using a variety of tools.

The electronic textbook can be executed by means of HTML language and represent a set of the web pages connected among themselves by references. The interactivity of this tutorial is provided by fragments written using the programming languages Java, JavaScript, PHP, etc.

You can convert textbooks created with these tools to Adobe PDF. In this case, they become unavailable for editing.

In addition, to create a tutorial, you can use special programming environments such as Delphi, Borland C, etc.

Currently, there are specialized firms for the creation of electronic textbooks. Their products are copyrighted and most often distributed on discs through a network of specialized computer stores or sold via the Internet.

Since modern computers can reproduce with great efficiency almost all known to date types of information transmission, they can implement adaptive algorithms in training and provide the teacher with objective and operational feedback on the process of learning. Multimedia computer is not only a new integrated media, it is a device that most fully and adequately displays the model "face to face". In addition, only in computers can be implemented information and reference systems based on hypermedia links, which is also one of the most important components of individualization of learning.

Tools for creating electronic textbooks can be divided into groups, for example, using a comprehensive criterion that includes indicators such as the purpose and functions performed, requirements for technical support, features of application. According to this criterion, the following classification is possible:

- traditional algorithmic languages;

- General-purpose tools;

multimedia;

- hypertext and hypermedia tools;

Below are the features and a brief overview of each of the selected groups. As a technical base in the future we mean IBM compatible computers, as the most common in our country and available to every educational institution.

Traditional algorithmic languages

Characteristic features of electronic textbooks created by means of direct programming:

- variety of implementation styles (color palette, interface, EC structure, material presentation method, etc.));

- complexity of modification and maintenance;

- time-consuming and labor-intensive;

- the absence of hardware limitations, i.e. the possibility of creating an EC focused on the available technical base.

It can be special programming environments such as Delphi, Borland C, etc.

The advantages of General-purpose tools include:

- ability to create electron tutorial by individuals who are not qualified programmers;

- a significant reduction in the complexity and timing of the development of electron tutorial;

- low requirements for computers and software.

The traditionally used program is Microsoft Word. Possessing the skills of an experienced user, the teacher can create a unique electronic textbook on his discipline, using his own approach of presenting educational material. Microsoft Word tools for interactive use:

- table of contents, made with the help of style markup;

- bookmarks and hyperlinks;
- context help;
- Word interaction with other Microsoft Office programs.

Media tools.

Even before the advent of new information technology, experts, after many experiments, revealed the relationship between the method of assimilation of the material and the ability to restore the acquired knowledge some time later. If the material was sound, the person remembered about 1\4 of its volume. If the information was presented visually about 1\3. When combining the impact (visual and auditory) memorization increased to half, and if a person was involved in active actions in the process of learning, the digestibility of the material increased to 75%.

So, multimedia means combining several ways of presenting information-text, still images (drawings and photographs), moving images (animation and video) and sound (digital and MIDI) - into an interactive product.

Audio information includes speech, music, sound effects. The most important issue is the information volume of the media. Compared to audio, video information appears to be a much larger number of elements used. First of all, it includes elements of static video, which can be divided into two groups: graphics (hand-drawn images) and photos. The first group includes various drawings, interiors, surfaces, symbols in graphic mode. To the second - photos and scanned images.

Dynamic video sequence almost always consists of sequences of static elements (frames). There are three typical elements: normal video (about 24 photos per second), quasi-video (6-12 photos per second), animation. Using video as part of a multi-environment involves solving a much larger number of problems than using audio. Among them, the most important are: the resolution of the screen and the number of colors, as well as the amount of information.

A characteristic difference of multimedia products from other types of information resources is a much larger amount of information, so now the main

carrier of these products is an optical CD-ROM with a standard capacity of 640 MB. For professional applications, there are a number of other devices (CD-Worm, CD-Rewritaeble, DVD, etc.), but they have a very high cost.

Hypertext is a method of non-linear presentation of text material, in which the text has in any way selected words that are bound to certain text fragments. Thus, the user does not just scroll through the pages of text in order, he can deviate from the linear description by any link, i.e. he controls the process of issuing information. In a hypermedia system, images can be used as fragments, and information can contain text, graphics, video clips, and sound.

The use of hypertext technology satisfies such requirements for textbooks as structuring, ease of use. If necessary, this tutorial can be "put" on any server and it can be easily adjusted. But, as a rule, they are characterized by poor design, layout, structure, etc.

Currently, there are many different hypertext formats (HTML, DHTML, PHP, etc.). An assessment of availability is required when selecting funds:

- hardware specific configuration;
- certified software systems;
- specialists of the required level.

In addition, it is necessary to take into account the purpose of the developed EC, the need to modify the addition of new data, the memory limit, etc.

Thanks to booming technology, multimedia and hypermedia are becoming cheap enough to be installed on most personal computers. In addition, the power and performance of the hardware allows you to use the above tools.

Characteristics of multimedia equipment

Interactive whiteboards have a number of significant advantages for use in education. Convenient, fully Russified software is easy to master even the most conservative teachers. The use of infrared and ultrasonic technology allows you to make the surface sufficiently strong and durable for intensive work in educational

institutions. Using the interactive whiteboard the teacher can manage the demonstration of visual materials, without departing from the Board and without breaking contact with your audience to make notes directly on top of the image, focusing students on key issues and making the learning process more effective. The large size of the Board makes it indispensable for group discussions.

Depending on the size of the audience, you can choose the size of the Board. A well-known manufacturer of multimedia equipment firm

Today it is quite difficult to imagine a modern presentation or video conference without a multimedia video projector. The popularity of this device is growing every day. And the whole history of these portable devices began in 1996, when the first multimedia video projector appeared in Japan. It was released quite well-known today Corporation JVC. But at that time the technology of video projectors production was only one, and in the future there were new technologies (such as D-ILA), large-scale production of these devices began. Began to appear more and more new technologies that are superior to previous models in many ways. Gradually, users realized the advantages of video projectors over conventional monitors and televisions, video projectors introduced new features, such as creating your own video conference. Currently, there is a large network of companies and organizations (for example, such well-known companies as Samsung, Philips, Sony, etc.), which are engaged in the production of video projectors. And today, the network of these companies is expanding very quickly, developed and implemented the latest achievements of science. Now it allows you to enjoy watching videos in a new, more contrasting atmosphere.

Projectors are the most convenient means for showing video materials to a wide audience. It is the most economical means of display in terms of the cost of 1 sq m of the image. Small portable or stationary models that provide a decent picture quality to represent multimedia content are relevant for regular classes.

Interactive panel installed at the workplace of the teacher, allows him to control the demonstration of visual materials directly from his seat, make notes on top of the image. Work with the panel is carried out using a special pen - you can not be afraid that an accidental touch with your hand or sleeve will interfere with the work.

All marks made on the interactive panel are displayed on any information display system, whether it is a projector and a screen of any size (which is especially important for large audiences) or something else, for example, a plasma panel. The Russified software is easily adjusted under needs of any teacher.

A lightweight wireless tablet with an electronic pen allows you to move freely around the classroom and access all the functions of the software from anywhere, allowing you to manage the demonstration of visual materials and provide them with notes.

All notes made from the tablet are displayed on the screen or plasma panel, the electronic pen can be used instead of a computer mouse, but the tablet does not have a display. It requires some tablet skills.

The voting system is a unique equipment for conducting surveys and testing. Application of the system is especially important in the field of education, training and seminars, as well as for the organization of television shows.

Special software included in the package allows you to instantly process the answers received. The standard set includes 15 or 30 remote participants, but the number can be increased to 255.

In recent years, testing is increasingly used to control the assimilation of material in Russian schools. The advantages of electronic testing over traditional forms are obvious: there is no need to spend time checking the control - the results are processed automatically, primary statistics are accumulated, which frees the teacher from routine work. The results of the control can be seen immediately after the end of the survey, and detailed reports allow you to identify not only the level of knowledge of each student, but also to instantly assess which topics cause the

greatest complexity. Additional multimedia files and graphic images that can be added to the question, give new opportunities for the creation of control - for example, a foreign language teacher can insert into the control questions on listening.

An important advantage of such software is its simplicity. Teachers generally can't afford to spend a lot of time familiarizing themselves with new tools. Very simple, intuitive interface of the program allows you to spend on familiarity with the basic functions of very little time. The software can be installed on any number of computers, so teachers can install it on a computer at home, in a relaxed atmosphere to understand its functions and prepare tests in advance.

Unlike the nearest analogues does not require the purchase of additional equipment. All you need to work with it is a teacher's computer and the ability to display questions on the big screen. As a screen, you can use an electronic Board, but it is not necessary - you can display the image on a normal screen and even on the wall.

As a result, we can draw the following conclusions.

The modern level of development of communication resources has opened new horizons in the field of educational activities. The rapid development of information technology, the transformation of the computer into a phenomenon of everyday routine, the emergence of Intemet, etc. - all this has affected such a traditionally conservative area as domestic education.

Multimedia product is the result of combining two areas: a specific subject area and the actual computer technology.

This product accumulates three main principles:

1. Representation of information through a combination of multiple human-perceived environments.

2. The presence of several storylines in the content of the product, including built by the user on the basis of" free search " within the proposed content of the product information.

3. Artistic design of the interface and navigation tools.

Multimedia is a new direction, but it has clearly begun to be divided into genres: electronic textbooks, training and testing programs, presentations. Each genre has its own characteristics, laws, problems.

To organize the educational process at the proper level, it is necessary to use modern equipment, including multimedia-projectors, screens, etc.

The model of educational process in which multimedia technologies are used can be divided into five consecutive stages:

1. Training of trainers. At this stage, courses "Multimedia technologies in the organization of the educational process" are organized, in which subject teachers are trained.

2. Installation and configuration of multimedia equipment. Responsibility for this stage is most often assigned to the technical Department of the institution, but it can also take part in the teachers themselves, who have received appropriate training.

3. Preparation of multimedia materials. At this stage, each teacher selects materials on their subject and prepares various types of multimedia presentations, and can also purchase branded software products for use in the classroom.

4. The use of multimedia materials. This is a key stage of the educational process, where the prepared materials are used in lectures, practical and laboratory work. And students can get some of the materials in electronic form for use in home classes.

5. Control of educational process indicators. At this stage, according to the indicators of the educational process, the impact of the use of multimedia technologies on the quality of the educational process and the level of knowledge on the subject is assessed.

Thus, the development of information technology provides a broad opportunity for the invention of new methods in education, thereby increasing its quality and efficiency.

Problems of using multimedia in using education:

The following problems can be identified in the current research on the use of multimedia:

- personalized learning styles are not considered when using multimedia. In other words, the real individualization of learning based on the use of multimedia occurs only if the cognitive style of the author of multimedia programs coincides with the style of the user;
- communicative or socio-cognitive aspects of learning are not taken into account. The introduction of graphics, video images and audio information does not solve the problems of ensuring effective communication, which has a significant emotional (and therefore motivational) impact on the student;
- the introduction of different types of media impact (including sound, graphics, video, animation) does not always solve the problem of improving perception, understanding and memorization of information, and sometimes interferes with the perception of students due to noise channels;
- the lack of preparedness of teachers to free use of multimedia in education due to low media literacy (the ability to make informed choices of media tools to achieve educational goals, knowledge opportunities and modern trends in the development of multimedia capability of developing multimedia educational purpose for the Assembly of multimedia modules);
- the problem of rejection of available programs and resources, which occurs due to the inadequacy of multimedia programs to the real educational process;
- the use of multimedia as a new didactic tool in traditional learning systems does not allow optimal implementation of educational and developmental multimedia resource;

Technical means. The education system will have a computer class with Windows-compatible computers. The computer class includes basic computing and

communication equipment and software (software), which is widely used in real information environments:

- personal computers equipped with system and special software;
- the network equipment uniting personal computers in a local area network and realizing an exit to the Internet;
- a wide range of shared peripheral devices;
- projection equipment.
- The projection equipment is a multimedia projector and / or a demonstration TV connected to a computer.

In addition, modern trends in working with multimedia information require a scanner, sound cards, a good printer. A digital camera and a video camera can be specified as desirable equipment

Internet as a means of modernization of foreign language teaching

After all, we live in the XXI century — the century of high computer technology. One of the greatest achievements of modern civilization is the creation of a worldwide information network. In recent years, we have witnessed a computer revolution that has affected all spheres of social, cultural, scientific and industrial activities of people. This computer revolution has now entered the next phase associated with the Internet. And in the near future there will be no people in the world who will not be affected by the changes caused by the existence of this single global information field.

The modern child lives in the world of electronic culture. The role of the teacher is also changing — he should become a coordinator of the information flow. Therefore, the teacher needs to know modern techniques and new educational technologies to communicate in the same language with the child. In this regard, I believe that now every teacher should learn to use the world wide web in order to improve the content of education through the use of modern technologies.

The Internet opens up new, previously unknown opportunities for improving English language teaching, as the use of ICT contributes to the unique possibility of creating a natural language environment. Students can take part in tests, quizzes, contests, competitions held on the Internet, correspond with peers from other countries, participate in chats, video conferences, etc.Students can receive information on the problem on which they are working at the moment in the framework of the project. It can be a joint work of Russian schoolchildren and their foreign peers from one or several countries. Also, access to the Internet gives you the opportunity to take advantage of a huge number of additional materials that allow you to enrich the lessons with a variety of ideas and exercises. In addition, the global Internet network creates conditions for obtaining any necessary information for students and teachers located anywhere in the world: country-specific material, news from the life of young people, articles from Newspapers and magazines, necessary

literature, etc. In my opinion, all this creates a unique opportunity for the implementation of the main goal of teaching foreign languages - the formation and development of communicative culture of students, teaching practical mastery of a foreign language.

Hypothesis. The use of Internet resources makes it possible to increase the readiness of students for intercultural interaction.

Purpose. To find effective ways of formation of communicative competence of pupils at use of Internet resources at lessons of English.

Tasks. To analyze the content of the concept of communicative abilities in the structure of communicative competence in psychological, pedagogical and methodological literature.

To conduct a study of Internet sites and identify the best methods and forms of work with them for the development of communicative competence.

To prove the expediency of the chosen path in the development of communicative competence by means of Internet resources.

Methods.

Problem-abstract.

Systemic-structural.

Method of concrete social research.

A reflexive method.

Main conclusions.

The studied theoretical materials, the work carried out on the above problem allow us to conclude that the use of Internet resources in English lessons contributes to:

- High-quality language training of students, the development of the ability to accurately and appropriately use the studied foreign language for effective communication.

- Creation of a basis for the possible use of English in the workplace.

The results and analysis of the level of formation of communicative competences of middle and senior level students confirmed the initial hypothesis of the project about the need to use Internet resources in the formation of communicative competences.

So, the goal of the project is achieved, the tasks set in the work are solved. It is proved that the use of Internet resources in English lessons contributes to the formation of communicative competence of students.

Now everyone understands that the Internet has enormous information capabilities and no less impressive services. But we must not forget that, whatever properties may have a particular means of learning, information and subject environment, primary didactic tasks, especially cognitive activity of students due to certain educational goals. The Internet, with all its capabilities and resources, is one of the means to achieve these goals and objectives.

Therefore, first of all, it is necessary to determine for what purposes and tasks we are going to use the world wide web. Naturally, the main purpose of foreign language teaching is the formation of communicative competence. We need to identify the tasks that can be performed using the Internet:

- inclusion of network materials in the content of the lesson (integrating them into the training program);

- independent search for information by students in the framework of the project;

- in-depth independent study of the first or second foreign language, elimination of gaps in knowledge, skills;

- independent preparation for the qualification examination without attending lectures;

- systematic study of a certain aspect of a foreign language remotely under the guidance of a teacher;

- increase motivation and create the need to learn a foreign language through live communication;

- formation and development of reading skills, directly using the materials of the network of varying degrees of complexity;

- formation and development of listening skills on the basis of authentic audio texts on the Internet, also respectively prepared by the teacher;

- improvement of skills of monological and dialogical statements on the basis of problem discussion of the materials presented by the teacher or someone from pupils of the network;

- improving the skills of writing, individually or in writing making responses to correspondence partners;

- replenishment of vocabulary, both active and passive, vocabulary of modern foreign language, reflecting a certain stage of development of the culture of the people, social and political structure of society, using authentic texts from the country of the studied language;

- familiarity with cultural knowledge, including speech etiquette, speech behavior of different peoples in terms of communication, especially the culture and traditions of the country of the studied language.

How to solve all these problems? Let us consider some of them in more detail.

1. The inclusion of materials of a network in the content of the lesson to integrate them in the curriculum.

At the moment, there are a large number of sites dedicated to the teacher of foreign languages. On such sites you can find ready-made lessons of foreign language teachers, newspaper articles, various thematic texts, exercises, grammatical explanations, audio books.

Here are examples of sites. English:

- grammar and abstracts in English:

http://www.edufind.com/english/grammar/toc.cfm ;

http://www.essaybank.co.uk/index.html ;

- teachers share lessons on various topics:

http://www.onestopenglish.com/lessonshare/;

- UK universities (possibility of cooperation with other teachers):

http://www.hero.ac.uk/universities_and_colleges/index.cfm;

- virtual London:

http://www.a-london-guide.co.uk/;

- Russian website - everything for the teacher and the student:

http://www.english.ru/;

- here you can download various audio books: http://www.readerschair.com/audiobooks/download.htm;

It is especially interesting to use Internet materials when working on the current topic of a foreign language lesson. The teacher can find various information on the network on the problem, which is subject to a given period of time to discuss, study, or you can give the task-to find information to students, competent users of the network, but, of course, defining the scope of the search. Offering such materials to students in small groups, the teacher can set the task-to select the appropriate information for the discussed problem, agree with it, take note of the work on the topic, or, on the contrary, argue it, which requires facts, information. Each group working on its own problem can be offered relevant material for discussion.

2. In-depth independent study of the first or second foreign language, the elimination of gaps in knowledge, skills, self-preparation for the qualifying exam external.

For foreign language learners on their own there are a large number of sites. Many sites are devoted to" on-line " lessons, there are trial tests for international

certificates. When answering such tests, it is possible to explain the correct answer in case of errors.

Examples:

- first Certificate in English – FCE:

http://www.cambridge-efl.org/exam/general/bg_fce.htm;

- practice tests for the EFL Exams:

http://www.english-online.org.uk/fce/fcehome.htm;

- free download IELTS practice test:

http://www.aapress.com.au/ielts/english/dload.html;

- the CAE trainer:

http://www.flo-joe.co.uk/cae/students/index.htm;

- CAE - Certificate in Advanced English.

http://www.cambridge-efl.org.uk/exam/general/bg_cae.htm;

- testing center: http://www.pacificnet.net/~sperling/quiz/;

- lessons: http://www.english-net.org/index.htm;

- the grammar section: http://www.ccc.commnet.edu/grammar/;

- humor in the English language: http://www.smiles4u.ca/;

- learn English on CNN: http://literacynet.org/cnnsf/archives.html;

- business English: http://ec.hku.hk/epc/default.asp;

- books in English: http://onlinebooks.library.upenn.edu/ ;

- library: http://digital.library.upenn.edu/books/authors.html ;

- study English in Australia: http://www.nceltr.mq.edu.au/writeaway/

- improve your writing: http://www.write101.com/ ;

3. Increase motivation and create the need to learn a foreign language through live communication.

The importance of information on the Internet is that you can always use, if necessary, the latest information or pick up a certain digest on a particular problem. You can also use the services of chat or e-mail to get the opinion of native speakers.

Then discuss in the lesson different points of view on the same problem (for example, presidential elections, events in different parts of the world, opinions about the book read, especially education in different countries, the tradition of celebrating the same holidays in different countries, such as Christmas, etc.). At the same time you can pick up the necessary and very interesting illustrations. Thus, there is a dialogue of cultures directly in the classroom, stimulated by real contacts with representatives of this culture.

Example chats:

- English: http://messenger.yahoo.com/ ;

The issue of integration of the Internet in education and, in particular, its application in teaching foreign languages, is currently quite relevant. This is mainly due to the fact that when using the Internet as one of the means of teaching a foreign language, many goals and objectives of the learning process are better realized. It follows that the Internet will soon become a daily practice of teaching in all educational institutions, including Tomsk state pedagogical University. Currently, the development of a systematic complex "Linguist" (www.lang-complex.narod.ru.). with this complex you can find: a link to the Internet on the topic of interest, a description of multimedia programs, exercises and texts. This will certainly make the lesson and preparation for it interesting and modern.

Disadvantages of Internet technologies difficulties when working with large amounts of information with poor communication lines (and such in remote regions and rural areas in the Russian Federation the majority), inability to work without communication lines.

Methodology of multimedia technologies in English lessons of technical education

The development of modern society takes place in the era of informatization, characterized by the use of information technology in many areas of human activity, including education. Rational combination of traditional educational means with modern information and computer technologies (ICT) is one of the possible ways to solve the problem of modernization of education. ICT tools contribute to the development of personal qualities, variability and individualization of school education. Modern ICT provide an active, creative mastery of the students of the studied subject, allow to present the material at a new qualitatively higher level. Their application opens up fundamentally new opportunities in the organization of the educational process. A foreign language is an educational subject that, due to its specificity, namely, the creation of an artificial language environment for students due to the lack of natural, involves the most flexible and extensive use of various technical means of education. Therefore, it is not surprising that in the teaching of a foreign language, the new opportunities offered by multimedia have found a wide variety of applications. In the process of teaching foreign languages in modern high school traditionally used lighting and sound equipment. But now new information technologies have come to the school: a computer, a multimedia textbook, the Internet, an electronic educational resource. The use of these new information technologies allows us to highlight the following main provisions:

- the use of multimedia technologies in teaching foreign languages is designed to significantly improve the efficiency of teaching, the main purpose of which is to improve the skills of everyday and professional communication (both directly with native speakers and indirectly through the Internet, the press, etc.);

- means of new information technologies act as a tool for education and upbringing of students, development of their communicative, cognitive, creative abilities and information culture;

- the use of multimedia learning tools allows in the absence of a natural language environment to create conditions as close as possible to real speech communication in foreign languages. The use of multimedia technologies plays a significant role in modern methods of teaching foreign languages. What is multimedia? Multimedia is an interactive (dialogue) system that provides simultaneous work with sound, animated computer graphics, video frames, static images and texts. This term refers to the simultaneous impact on the user through several information channels. In this case, the user is usually given an active role. In other words, multimedia is the sum of technologies that allow a computer to input, process, store, transmit, and display (output) data types such as text, graphics, animation, digitized still images, video, sound, and speech.

The word multimedia appeared out of connection with computer technologies. It was first used by English singer and performer Bob Goldstein in 1966, when he arranged his newfangled show performance. Later, this term denoted any entertainment product with different sound and video effects, but only in the 1990s was finally given the definition of this word: "multimedia — multimedia) is a modern computer information technology that allows you to combine in a computer system text, sound, video, graphic image and animation (animation)" — "Multimedia includes a combination of text, audio, still images, animation, video, or interactivity content forms".

Previously, a lesson conducted by a teacher was called multimedia, if it was attended by a teacher's story, and a tape recording, and a movie, and slides, and any technical means of teaching. Today, a "multimedia" lesson means a lesson using a multimedia training program, a computer or laptop, a projector, a webcam. In the theory of training even several modern directions of researches, in particular the theory of multimedia training was allocated. There was even an informal term edutainment - "edutainment" -a new formation from the words "education" and "entertainment", used to combine education and entertainment, especially

multimedia. Edutainment reflects the relationship between learning and entertainment, that is, the student focuses on the learning process, while having entertainment goals. It is multimedia that has the greatest impact on students. They enrich the learning process, make learning more effective, involving in the process of perception of educational information most of the sensory components of the student. They have become an objective reality of our time, and a foreign language teacher simply cannot take advantage of the opportunities that they provide for teaching real communication in a foreign language. Together with multimedia technologies, a new ideology of thinking came to the school. Previously adopted the school model of education in the center for learning technologies - teacher; between students was an unspoken competition; students played a passive role in the classroom; the essence of learning-the transfer of knowledge (facts). The new learning model that is replacing it is based on the following provisions: at the center of learning technology-the student; at the heart of learning activities - cooperation; students play an active role in learning; the essence of technology - the development of the ability to self-learning and communicative competence of students.

The Main groups of tasks solved with the help of multimedia in English lessons include: support of educational work of students; provision of real communication with native speakers; ensuring access of all participants of the educational process to the rapidly growing information resources stored in centralized information systems; development of cognitive interest and motivation to learn English. The degree and time of multimedia support for a lesson can vary from a few minutes to a full cycle. The main purpose of the multimedia lesson: the study of new material; presentation of new information and expanding the horizons of students; consolidation of the passed; testing of educational skills; repetition of the studied material; practical application of knowledge, skills; generalization and systematization of knowledge. What are the main ways to use the capabilities of

modern multimedia technologies in teaching a foreign language? For example, N.S.Kirgintseva distinguishes the following:

- the use of ready-made software products for the study of a foreign language, supplied mainly on CDs;

- the use of software products created directly by teachers (or teachers together with students) in various tool environments or visual design environments);

- the use of Internet resources. The most accessible of the multimedia means should be recognized as the so-called electronic textbook and a variety of training programs-simulators. By type of organization and method of delivery to the student multimedia textbooks are of three types:

1) on CD-ROM with or without a printed application;

2) on Internet sites with or without a printed application;

3) on CD-ROM, but with reference to some Internet sites, with or without a printed application.

A foreign language is an educational subject that, due to its specificity, namely, the creation of an artificial language environment for students due to the lack of natural, involves the most flexible and extensive use of various technical means of education. Therefore, it is not surprising that in the teaching of a foreign language, the new opportunities offered by multimedia have found a wide variety of applications.

Note that in our school we use the SMG with an electronic application to all textbooks of the English language: a series of "English" (authors Vereshchagina I.N., Afanasieva O.V., Mikheeva I.V.), a series of "English in focus" (authors J.Blown., J.Vaulina). What is so attractive multimedia (electronic) textbooks for teachers and students? These electronic applications to English textbooks contain a training program for memorizing words-ABBYY TUTOR, which greatly facilitates the work of memorizing new words. Working with foreign language programs in the computer lab helps students overcome the psychological barrier. When students see

a graphic image or pictures on a computer screen, they perceive and master new material better.

The material included in the programme allows to solve the following methodological tasks: (for example, when learning and retaining new English words):

1) to create and consolidate the skill of recognizing the meaning of the word

2) forming a motor skill of writing specified

3) attach a visual image to be mined material. Thus, with the help of educational programs, it is possible to significantly change the ways of managing educational activities, purposefully manage the competitive element present in the activities of students, to individualize learning, and this contributes to improving the quality of education.

Multimedia presentations can be made anywhere where there is a computer and a projector or other local playback device. Broadcast presentation can be both "live" and pre-recorded. Broadcasting or recording can be based on analog or electronic technologies of storage and transmission of information. It is worth noting that online media can be either downloaded to the user's computer and played in any way, or played directly from the Internet using streaming technologies. Forms and place of use of multimedia presentation (or even a separate slide) in the classroom depend, of course, on the content of the lesson and the goal set by the teacher. However, practice allows us to identify some common, the most effective methods of application of such benefits:

1. In the study of new material. It allows you to illustrate a variety of visual AIDS. The application is particularly beneficial in cases where it is necessary to show the dynamics of any process.

2. When you pin a new topic.

3. To test knowledge. Computer testing is a self-examination and self-realization, it is a good incentive for learning, it is a way of activity and self-

expression. For a teacher it is a means of quality control of knowledge, a programmed way of accumulating assessments.

4. To deepen knowledge as additional material to the lessons.

5. When checking the front independent work. Provides along with oral visual control of the results.

6. When solving problems of educational nature. Helps to perform and control intermediate and final results of independent work. The teacher can use a Bank of ready-made multimedia presentations created by colleagues and posted on professional websites and forums, which significantly reduces energy consumption in preparation for the lesson. Or he creates his own presentation for a particular lesson or topic. The value of the presentations created by the teacher is that the material in them is given to students compactly, in the right sequence; there is nothing superfluous, everything "works" to achieve the goals and objectives of a particular lesson, unlike ready-made films and slides. In addition, the material of the presentation accurately calculated at the time informative and lexical points of view best suits the lesson. Teachers of our gymnasium created a Bank of multimedia presentations on many topics of English grammar, vocabulary, country studies, etc., which are regularly used by all teachers in the classroom-lesson system, and there are new models of multimedia presentations in extracurricular activities. The method of projects can be considered at the moment one of the most promising pedagogical technologies that allows you to reveal the most fully creative abilities of students, to form the ability to navigate in a huge sea of information, focusing on the main thing. Of course, the method of projects requires the highest qualification of the teacher, creative approach to the school curriculum, the ability to aggregate knowledge in several subjects and, of course, organizational skills.

The main components of the project method are the research work of schoolchildren and the evaluation of this activity. Of all the tools of cognition, multimedia is the best way to represent knowledge in a variety of ways, including

all the modalities of perception. Multimedia implements a more creative approach to the process of assimilation and presentation of knowledge. For example, with the help of students of our gymnasium created a whole library of multimedia presentations, mainly on regional studies, which are regularly used by us in the classroom. In addition to programs on computer disks to increase the motivation of students, many teachers use the Internet, which allows you to further "include" such an important element of learning as interest in the subject being studied. The formation of interest or motivation to study is one of the most difficult elements in the educational process. In this case, using the popularity of the Internet in the student environment, it can be done quite simple means.

Multimedia Internet resource - an Internet resource in which the basic information is presented in the form of multimedia. This is a modern and very convenient mechanism that does not replace the classical functions, but complements and expands the range of services and opportunities for all visitors. Multimedia Internet resources are characterized by the following: they can contain different types of information (not only text, but also sound, graphics, animation, video, etc.). High degree of visibility of materials, authenticity of materials, entertaining, independence, instant feedback. Currently, a methodology for teaching a foreign language using the Internet is being developed. There are supporters of the idea of language learning only through the Internet, and supporters of the traditional work with the textbook. But the majority of English teachers, and in our gymnasium as well, prefer to use the Internet along with traditional means of teaching, integrating it into the educational process. The simplest application of the Internet is to use it as a source of additional materials and exercises, both for the teacher and the student in the study, repetition, consolidation or control of any topic or in preparation for the exam. Here are some Internet resources that we use in the classroom:

1) Lettergeneratorhttp://www.readwritethink.org/classroom-resources/student-interactives/letter-generator-30005.htmlСоздан for training of writing skills, and it is part of C1. It contains a sample of writing both personal and business letters with step-by-step recommendations.

2) EssayMaphttp://www.readwritethink.org/classroom-resources/student-interactives/essay-30063.htmlСоздан for training of writing skills, and it is part of the C2-essays - writings. There is a ready-to-print scheme of writing an essay with step-by-step instructions.

3) www Web service.learningapps.oldweb service learningApps.org created to support the educational process through the interactive applications. The goal is also to collect interactive blocks and make them available to the public. Each teacher can use one or another module to solve specific problems in their subject area. The server provides exercises in 28 subject areas.

4) the Server to create a video http://goanimate.com/videomaker/quickvideo GoAnimate was founded in 2007 to create their own animated clips. It does not require professional knowledge of the operator and the artist, the video is created in minutes on ready-made templates, it is possible to save on a web server. You just need to register and use the ready-made templates.

5) Site to prepare for the exam http://lengish.com/tests/ege this site presents 6 full versions of the exam in English with instant self-test, which greatly facilitates the procedure of checking the performance of tasks by the teacher. In addition, after performing a test once, you can go back to it, work on the errors, analyze individual questions. The site also provides separate exercises to improve vocabulary skills and listening and reading skills, which makes it possible to use this EOR at different stages of preparation for the exam.

6) website for the development of listening skills http://www.english-test.net/toeic/listening/the_bund_shanghai.html this site contains a large collection

of audio files for the perception of foreign speech by ear, and exercises to practice pronunciation.

7) Website for learning idioms and phrasal verbs in English http://usefulenglish.ru/idioms/ Training material with exercises on this site describe the use of a competent standard of English, i.e. the language of General use in its standard use. Examples of usage, words and phrases, idioms and stable expressions in different situations in oral and written speech are given.

8) Website for learning English http://www.native-english.ru/ Everything you need to learn English-grammar guide, tests, dictionary of idioms and Proverbs, songs, poems and more. Based on the above, we can conclude that multimedia learning technologies have huge advantages over traditional methods of teaching. They allow you to train different types of speech activity and combine them in different combinations; help to create communicative situations, automate language and speech actions; contribute to the implementation of an individual approach and the intensification of independent work of the student. Modern trends in the teaching of foreign languages are associated with a radical change in the methodological paradigm, as well as with the technical and technological renewal of the learning process, which is reflected in the massive onset of new learning tools, primarily multimedia computer programs. With the development of computer technology and the Internet opened up new ways and opportunities for knowledge. The latest achievements in the field of high technologies open wide opportunities for the teachers of a foreign language for further improvement of the educational process and its transfer to a qualitatively new basis.

Today, multimedia technology is one of the promising areas of informatization of the educational process. The prospect of successful application of modern information technologies in education is seen in the improvement of software and methodological support, material resources, as well as in the mandatory professional development of the teaching staff. All these properties of multimedia programs help

to solve the main problem of language education, defined By the program in foreign languages-the formation of students of different competencies and communicative competence in particular.

In the process of teaching foreign languages in modern high school traditionally used lighting and sound equipment. But now new information technologies have come to the school: a computer, a multimedia textbook, the Internet, an electronic educational resource. The use of these new information technologies allows us to highlight the following main provisions: - the use of multimedia technologies in teaching foreign languages is designed to significantly improve the efficiency of teaching, the main purpose of which is to improve the skills of everyday and professional communication (both directly with native speakers and indirectly through the Internet, the press, etc.).); - the means of new information technologies act as a tool of education and upbringing of pupils, development of their communicative, cognitive, creative abilities and information culture; - the use of multimedia learning tools allows in the absence of natural language environment to create conditions as close to real communication in foreign languages.

Previously, a lesson conducted by a teacher was called multimedia, if it was attended by a teacher's story, and a tape recording, and a movie, and slides, and any technical means of teaching. Today, a "multimedia" lesson means a lesson using a multimedia training program, a computer or laptop, a projector, a webcam. The value of the presentations created by the teacher is that the material in them is given to students compactly, in the right sequence; there is nothing superfluous, everything “works” to achieve the goals and objectives of a particular lesson, unlike films and slides. In addition, the presentation can be “put” the text that best matches the topic of the lesson with an informative and lexical points of view. When re-viewing the presentation, the text can be disabled, and students given the task to read the slides independently. Thus, the teacher gets rid of the need to adapt the finished text for students and spend valuable lesson time on "noise" information, which is almost

inevitable when using ready-made presentations; in addition, the presentation material is clearly timed

Multimedia presentations can be made anywhere where there is a computer and a projector or other local playback device. Broadcast presentation can be both “live” and pre-recorded. Broadcasting or recording can be based on analog or electronic technologies of storage and transmission of information. It is worth noting that online media can be either downloaded to the user's computer and played in any way, or played directly from the Internet using streaming technologies. Forms and place of use of multimedia presentation (or even a separate slide) in the classroom depend, of course, on the content of the lesson and the goal set by the teacher. However, practice allows us to identify some common, the most effective methods of application of such benefits :

1. When learning new material. Allows you to illustrate a variety of visual means. The use is particularly advantageous in cases when it is necessary to show the dynamics of the development of any process.

2. When you pin a new topic.

3. To test knowledge. Computer testing is self-reflection and self-realization, it is a good stimulus for learning is the mode of activity and expression of self. The teacher is a means of quality control of knowledge, programmed way of accumulation estimates.

4. To deepen knowledge, as additional material for lessons.

5. When checking frontal independent work. Provides oral along with visual inspection results.

6. When the task of training and character. Helps to manage and monitor intermediate and final results of independent work.

The main groups of problems solved with the help of the media, include:

support of academic work of students;

- ensuring effective communication with native speakers;

- ensuring access of all participants of educational process to the rapidly growing funds the information stored in the centralized information systems;

- ensuring interaction between teachers, exchange of pedagogical experience and didactic materials.

What is so attractive multimedia (electronic) textbooks teachers and students? The fact is that knowledge that provides a high level of professional qualification is always subject to rapid changes. Electronic textbooks make it possible to monitor these changes and thus ensure a high level of training.

Advantages of electronic textbooks:

Visual presentation of the material (use of color, illustrations, sound, video, animation, etc.).

Fast feedback (built-in test systems provide instant control over the assimilation of the material.

Interactive mode allows students to control the speed of the study material).

The ability to regularly adjust the textbook as new data becomes available (the electronic textbook is located in one specific place in the virtual space, to which millions of people have access; in order to add or correct anything, it is enough to make changes to one file, and tomorrow millions of people will have an edited version of the old textbook).

With the development of computer technology and the Internet opened up new ways and opportunities for knowledge. The latest achievements in the field of high technologies open wide opportunities for the teachers of a foreign language for further improvement of the educational process and its transfer to a qualitatively new basis. Today, multimedia technology is one of the promising areas of Informatization of the educational process. The prospect of successful application of modern information technologies in education is seen in the improvement of software and methodological support, material resources, as well as in the mandatory professional development of the teaching staff. All these properties of multimedia

programs help to solve the main problem of language education, defined By the program in foreign languages-the formation of students of different competencies and communicative competence in particular.

Multimedia means of teaching a foreign language in higher education can not replace the teacher, but they can improve and diversify the activities of the teacher, thereby increasing the productivity of students. As you know, a person, when learning a foreign language and not only, remembers twenty percent of video information, thirty percent of audio information. If you combine what they see, hear and do at the same time, the productivity of memorization is eighty percent of the information.

In addition, the use of multimedia technologies in the process of learning a foreign language allows more widely and fully unleash the creative potential of each individual student.

Multimedia tools in the process of teaching a foreign language in high school can cover electronic textbooks, self-prepared material by the teacher, presentation of information using PowerPoint, video method, e - mail, role-playing games, electronic interactive whiteboards, etc..

In turn, electronic textbooks enable the teacher to find an individual approach to students, increase the motivation of students to learn a foreign language, students become subjects of learning. Also, the advantages of electronic textbooks include: visual presentation of the material, the ability to adjust the textbook and adapt it to the level and requirements of the discipline, self-control of the material, feedback, ease of use.

Self-selected material by the teacher is the most directed and appropriate, as a foreign language teacher prepares and selects information in accordance with the requirements of the University and professionally oriented specialization.

The presentation of information using the Power Point program is also self-selected material and with the help of this program makes it possible to cover all

types of speech activities of students (writing, reading, speaking, listening and translation).

Video is a highly effective opportunity of presenting information, since its main advantage is the transparency of information, more intuitive, easier and faster to digest. E-mail is one of the auxiliary methods of the control function, as well as an additional method of communication. Students have the opportunity to clarify the information or solve arising in the classroom time, thereby more efficiently preparing homework and fulfilling all the requirements of the teacher.

The use of role-playing games allows participants to communicate with each other by playing a role. Students must find the information necessary for the role and the game, thus students show independence in the search and selection of necessary and interesting information in English.

Universal means of learning are electronic interactive whiteboards, which are an effective way to introduce electronic content of educational material and multimedia materials in the learning process. With the help of electronic interactive whiteboards, the studied material is submitted in full, the material clearly emerges on the screen of the interactive whiteboard and aims each student to an active fruitful activity.

Innovative technological means of teaching a foreign language in high school make it possible to improve the methods of presenting grammatical and lexical information, the practice of monological and dialogical speaking, teaching writing and practicing pronunciation, constantly replenish the vocabulary of students.

Multimedia technologies can help a foreign language teacher in higher education to adjust the educational process, taking into account the interests and opportunities of individual students, help to implement a personality-oriented approach to learning, provide individualization and differentiation of learning.

The use of interactive technologies in teaching a foreign language contributes to the communicative orientation of this teaching. This, in turn, significantly

improves the quality of the material supply and the efficiency of assimilation of this material. The introduction of innovative technologies enriches the content of the educational process, increases the motivation of students to learn English and leads to closer cooperation between the teacher and students.

For the successful implementation of multimedia technologies in the process of teaching a foreign language in high school requires such necessary components as software (multimedia discs, presentations, video, audio clips, Internet resources), as well as equipment (PC, audio, video equipment, multimedia projector, interactive whiteboard).

So, at the lesson in a foreign language, having video support of the proposed material, students have the opportunity to get acquainted with the socio-cultural realities of the country studied, to observe the facial expressions, gestures, the environment of native speakers of the studied language.

Teaching a foreign language in high school with the use of multimedia technologies makes it possible to move from passive presentation of the material to an active way of implementing educational activities in which the student becomes not only the Central object of the process, but also an active participant. In this case, multimedia technologies should not become the center of the learning process, but carry an auxiliary, cognitive nature, as well as an auxiliary means of activating attention. Thus, the educational process itself is activated by increasing the visibility of the proposed material, there is a more fruitful interactive interaction.

The peculiarity of a foreign language is that it itself is both the purpose and the means of learning. The student first learns the simplest elements, and then with their help learns complex. Teaching a foreign language professional direction in high school provides that the student already has a basic knowledge of a foreign language.

The educational design of the multimedia lesson

Pedagogical design-the use of knowledge (principles) about effective educational work (teaching and learning) in the process of design, development, evaluation and use of educational materials.

The lesson, as a direct tool for the implementation of the basic ideas of information and communication technologies, requires the most careful development. It is the lessons that are the litmus test that show the effectiveness of a particular development. This is both the final result and the last stage of design, implementation of ideas laid down by the developers of certain technologies.

The preparation of such lessons requires even more careful preparation than in the normal mode. Concepts such as the script of the lesson, directing the lesson - in this case, not just newfangled terms, and an important part of the preparation for the training session. Designing a future multimedia lesson, the teacher must consider the sequence of technological operations, forms and ways of presenting information on the big screen. It is worth immediately thinking about how the teacher will manage the educational process, how pedagogical communication will be provided at the lesson, constant feedback from students, developing the effect of learning.

A multimedia lesson is a lesson that uses multi-media representation of information using technical means, primarily a computer. In numerous articles devoted to this topic, the expression "lesson with multimedia support" is often found. It is quite obvious that this is the name of a lesson where multimedia is used to enhance the learning effect. In this lesson, the teacher remains one of the main participants in the educational process, and often the main source of information. At any time, the teacher can use hyperlinks to go to the details of the information, "revive" the studied material with the help of animation and so on.

It is obvious that the degree and time of multimedia support for the lesson can be different: from a few minutes to a full cycle. However, a multimedia lesson can also act as a" mini-technology", that is, as a teacher-prepared development with

specified educational goals and objectives, focused on quite specific learning outcomes. This lesson has a sufficient set of information component, didactic tools. The role of the teacher who in this case is, first of all, the organizer, the coordinator of cognitive activity of pupils significantly changes at its carrying out. Conducting a lesson in the mode of mini-technology does not mean that the teacher is deprived of the possibility of maneuver and improvisation. It will not be surprising that such a lesson can play with new faces, pass more attractive, interesting, dynamic. But the lesson is a mini - technology implies a significant reduction of "pedagogical marriage".

When designing a future multimedia lesson, the developer should think about what goals he pursues, what role this lesson plays in the system of lessons on the studied topic or the entire training course. What is the multimedia lesson for:

- to study new material, presentation of new information;
- to consolidate the passed, working out educational skills;
- for repetition, practical application of the acquired knowledge, skills skills;
- for generalization, systematization of knowledge.

It is necessary to determine at once: thanks to what the training and educating effect of a lesson will be strengthened that carrying out a multimedia lesson did not become just a tribute to newfangled Hobbies. Based on this, the teacher must choose the forms and methods of the lesson, educational technology, teaching techniques.

Forms and place of use of multimedia presentations (or even a separate slide) in the classroom depend, of course, on the content of the lesson, the goal set by the teacher. However, practice allows us to identify some common, the most effective methods of application of such benefits:

In the study of new material. It allows you to illustrate a variety of visual AIDS. The application is particularly beneficial in cases where it is necessary to show the dynamics of any process.

When pinning a new topic

To test knowledge, Computer testing is a self-examination and self-realization, it is a good incentive for learning, it is a way of activity and expression. For a teacher it is a means of quality control of knowledge, a programmed way of accumulating assessments.

To deepen knowledge as additional material to the lessons.

When checking the front independent work. Provides along with oral visual control of the results. When solving problems of educational nature. Helps to execute the drawing, to make the decision plan and to control intermediate and final results of independent work on this plan

A means of emotional relief. During the block lessons or long consultations before exams-it is necessary to include video sequences of experiments or cartoons at the same time the students disappear fatigue, there is interest, they are looking for answers, turn to the teacher with questions, charged with new energy. Multimedia programs look like a video, but with the ability to intervene in the course of action and dialogue.

As a means to making distributing didactic material, codogram and cards. Personal computer in the hands of teachers, in addition to the scanner and printer is a mini-printing office of a teacher.

In educational activities, the use of the computer is possible in three forms, 1) the machine as a simulator, 2) the machine as a tutor, performing certain functions for the teacher, and such that the machine can perform better than a person. 3) a Device that simulates a certain environment and the actions of specialists in it.

Training systems are most appropriate to apply to consolidate previously acquired skills. Tutoring systems are best used provided that the goals and objectives of training are clearly defined. Simulation training modeling is most suitable when the training material is not systematic and its boundaries are not clearly defined.

When using a multimedia presentation, it can be used in a classroom system or use new models of its application.

It is possible to note a method of projects as the most perspective pedagogical technology which allows to open most fully creative abilities of trained, to form ability to be guided in the huge sea of information, focusing attention on the main thing, to take responsibility and to make decisions.

Of course, the method of projects requires the highest qualification of the teacher, creative approach to the school curriculum, the ability to aggregate knowledge in several subjects and, of course, organizational skills. The use of information technology in the project at school and, of course, in the development of materials for it, was decisive, breathed new life into the well-known design methodology for a long time. The main components of the project method are the research work of schoolchildren and the evaluation of this activity

Of all the tools of cognition, multimedia is the best way to represent knowledge in a variety of ways, including all the modalities of perception. Working with multimedia tools, students have at their disposal a rich Arsenal for self-expression of the studied material. Multimedia implements a more creative approach to the process of assimilation and presentation of knowledge.

The system of training, in which students acquire knowledge and skills in the process of planning and implementation of gradually increasing complexity of practical tasks-projects. One of the personality-oriented technologies, a way of organizing independent activities of students, aimed at solving the problem of the educational project, integrating the problem approach, group methods, reflexive and other techniques.

In our opinion, the most progressive possibilities of multimedia are to use them in the educational process as an interactive multi-channel learning tool. Research, project approach in the system of education, development of their own multimedia / hypermedia projects, constant use of multimedia for educational purposes in all

blocks of disciplines of General cultural and subject training, allow to transform the traditional learning process into developing and creative. Information technology allows students to give a unique opportunity to learn a new concept independently of the teacher, to notice a pattern, to put forward their own hypothesis, to feel how mathematical questions arise. The ability to use the method of projects-an indicator of high qualification of the teacher, his progressive methods of teaching and development of students.

No wonder these technologies are referred to the technologies of the XXI century, assuming, first of all, the ability to adapt to the rapidly changing conditions of human life of post-industrial society. But it should also be noted that the project method can be useful only if it is used correctly, a well-thought-out structure of the projects and the personal interest of all project participants in its implementation. Teaching methods have a close relationship with the nature of presentation and perception of information for both the learner and the trainer. And in connection with this fact it should be noted that the use of multimedia technologies significantly affects the nature of the presentation of information, and, consequently, on the methods of teaching there Are opportunities to use the methodical technique of do as I do - it is a joint activity of the teacher and the student. Or option the presentation is not brought to the end, and it is offered to the trained to illustrate the text. Game teaching methods are widely used.

Multimedia elements create additional psychological structures that contribute to the perception and memorization of the material, for example, the summing up of each presentation is preceded by a certain sound or melody that sets the student to a certain type of work. The following problems can be identified in current research on the use of multimedia: personalized learning styles are not taken into account when using multimedia. In other words, the real individualization of learning through the use of multimedia occurs only if the cognitive style of the author of

multimedia programs matches the style of the user; communicative or socio-cognitive aspects of learning are not taken into account.

The introduction of graphics, video images and audio information does not solve the problems of ensuring effective communication, which has a significant emotional (and therefore motivational) impact on the student; the introduction of different types of media impact (including sound, graphics, video, animation) does not always solve the problem of improving perception, understanding and memorization of information, and sometimes interferes with the perception of students due to noise channels; the lack of preparedness of teachers to free use of multimedia in education due to low media literacy (the ability to make informed choices of media tools to achieve educational goals, knowledge opportunities and modern trends in the development of multimedia capability of developing multimedia educational purpose for the Assembly of multimedia modules); the problem of rejection of existing programs and resources, which occurs for reasons of inadequacy multimedia programs real educational process; the use of multimedia as a new didactic tool in traditional learning systems does not allow optimal implementation of educational and developmental multimedia resource. A multimedia lesson can achieve maximum learning effect if it appears as a meaningful whole product rather than a random set of slides. A certain list of oral, visual, textual information turns a slide into an educational episode. The developer should strive to turn each of the episodes into an independent didactic unit.

Pedagogical reference books define a didactic unit as a logically independent part of the educational material, in its volume and structure corresponding to such components of the content as the concept, theory, law, phenomenon, fact, object, etc. Thus, preparing a training episode and considering it as a didactic unit, the developer must clearly understand what training objectives he pursues this episode, what means he will achieve their implementation. One of the obvious advantages of multimedia lessons is to enhance visibility. The use of visibility is all the more

important because in schools, as a rule, there is no necessary set of tables, diagrams, reproductions, illustrations. In this case, the projector can provide invaluable assistance. However, it is possible to achieve the expected effect if certain requirements for presentation are met.

1. Visibility, which must correspond to the presentation of written or oral information.

2. The dynamics of presentation of visibility. Demonstration time should be optimal, and correspond to the currently studied educational information. It is very important not to overdo the effects.

3. Sophisticated algorithm of video sequence of images. Multimedia provides the teacher with the ability to present the desired image to the nearest instant. It is enough for the teacher to think over the sequence of images on the screen in detail, so that the learning effect is as large as possible.

4. The optimal size of the visibility. And this applies not only to the minimum, but also the maximum size, which can also have a negative impact on the learning process, contribute to more rapid fatigue of students. The teacher should remember that the optimal size of the image on the monitor screen in any case does not correspond to the optimal size of the image of the large screen of the projector.

5. The optimal number of images presented on the screen. Do not get carried away by the number of slides, photos, etc., which distract students, do not allow to focus on the main thing. When preparing an educational episode, the teacher will necessarily face the problem of presenting a printed text. It is necessary to pay attention to the following requirements to the text: structure; volume; format. The text on the screen should act as a unit of communication. It has either a subordinate character that helps the teacher to strengthen the semantic load, or it is an independent unit of information that the teacher deliberately does not voice. It is quite natural when definitions of terms and key phrases appear on the screen. Often on the screen we see a kind of thesis lesson plan. In this case, the main thing is not

to overdo it, not to clutter the screen with text. Obviously, a large amount of writing is poorly perceived from the screen.

The teacher should strive to replace the printed text with clarity whenever possible. In fact, this is also a text, but presented in a different language. Recall the definition of text in encyclopedic reference books as a sequence of graphic or sound language characters, limited to a single purpose. It is also important how the printed text will be presented from the screen. As well as visibility, the text should appear in advance thought-out by the teacher time. The teacher either comments on the presented text, or reinforces the oral information presented to them. It is very important that the teacher in any case does not duplicate the text from the screen. Then the students will not have the illusion of an extra link of incoming information. Although there may be cases where duplication of printed text by the teacher or student didactically justified. This technique is used in primary school, when the teacher achieves a comprehensive approach to learning, connecting different channels of perception.

Skills of reading, oral account and so on are improved. Duplication of printed text is also mandatory at any age when conducting multimedia didactic games. Thus, the teacher achieves equal conditions for all students: both those who are easier to perceive oral information, and easier to assimilate the information of the printed text. While preparing a multimedia lesson, the developer should have at least an elementary idea of color, color gamut, which can successfully affect the design of the color scenario of the educational episode.

Do not neglect the recommendations of psychologists, designers about the influence of color on the cognitive activity of students, the combination of colors, the optimal number of colors on the screen. It should be noted that the color perception on the monitor screen and on the big screen are significantly different, and multimedia lesson should be prepared in the first place with the expectation of the projector screen. Also important is the use of sound in the classroom. Sound can

play the role of: noise effect; sound illustration; sound accompaniment. As a noise effect, sound can be used to attract the attention of students, switching to another type of educational activity. The presence of a multimedia collection of Microsoft Office sound effects does not necessarily mean their use. The noise effect should be didactically justified.

For example, in the case of a multimedia educational game jerky noise effect can be a signal to the beginning of the discussion of the question or, conversely, a signal to the end of the discussion and the need to present an answer. It is very important that students are accustomed to this, so that the sound does not cause them excessive excitement. An important role is played by sound illustration as an additional channel of information. For example, a visual image of animals or birds can be accompanied by their growling, singing and so on. A drawing or photograph of a historical figure may be accompanied by his recorded speech.

Finally, the sound can play the role of educational sound visual image, animation, video. In this case, the teacher should carefully weigh how it will be rational to use sound in the classroom. What will be the role of the teacher during the soundtrack? It will be more acceptable to use sound as a teaching text in the course of self-preparation for the lesson. At the same lesson it is recommended to reduce the sound to a minimum. Summing up the above, we can say that modern technology can be successfully used in the multimedia lesson fragments of videos. The use of video information and animation can greatly enhance the learning effect. It is the film, or rather a small educational fragment, that most contributes to the visualization of the educational process, the presentation of animated results, simulation of various processes in real-time learning. Where learning does not help stationary illustration, table, can help multidimensional moving figure, animation, video and more.

However, when using video information, do not forget to keep the pace of the lesson. The video should be extremely short in time, and the teacher should take care

of providing feedback to students. That is, video information should be accompanied by a number of questions of a developing nature, causing the guys to dialogue, commenting on what is happening. It is preferable to replace the sound of the video with live speech of the teacher and students.

Conclusion

As stated in the law "On education" and in the "National program of training of personnel", the changes taking place in the educational system of socio – economic relations in our country, an important task is set before each teacher of science. These tasks are expressed in a variety of science programs, curricula, textbooks, as well as in the methodological system, which are specific to education.

In the correct understanding and understanding of the essence of each Science, the law of development, it is most important to determine the processes, the content of concepts that determine the content of this science. The use of modern pedagogical technologies in teaching foreign languages to the young people gives good results in achieving the intended goal. In this regard, it is planned to create multimedia electronic hands-on devices developed on the basis of pedagogical technologies and information technologies.

The multimedia electronic guide to the science of foreign languages, first of all, provides a rich scientific knowledge, as well as a wide range of opportunities for the formation of a complete picture in young people about some delicate concepts related to the content of the subject in contrast to other methods of application in English science. Also, the use of multimedia tools in the course process will help to strengthen the minds and minds of students, to cultivate their creative abilities, to increase interest in the lesson, to develop their independent mind, to facilitate the explanation and understanding of the lesson, to give them a deep and clear picture of their relationship to life.

Proceeding from the above considerations, the development and use of educational institutions in the educational process in the form of a multimedia electronic guide in the interesting passage of lessons to schoolchildren-young people in the teaching of I subjects in educational and educational institutions is of great benefit.

Multimedia can be used for the presentation of knowledge, for the organization of control, consolidation, repetition, generalization, it successfully performs all didactic functions. Training and educating functions of this method are caused by high efficiency of impact of visual images. The information presented in a visual form is the most accessible to perception, is absorbed easier and faster.

Having considered the main types of multimedia technologies, we came to the conclusion that they can and should be used in foreign language lessons, since the use of modern ICT in the educational process provides an opportunity to:

- give students more complete, accurate information about the phenomena and processes studied;
- increase the role of visibility in the learning process;
- meet the needs, desires and interests of students;
- release teachers from part of the technical work related to the control and correction of knowledge;
- establish effective feedback;
- to organize a complete and systematic monitoring, an objective accounting of progress.

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