# USING OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN INFORMATICS LESSONS

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## Annotation:

Modernity makes ever higher demands on training. The volume of information is growing, and often the routine methods of transmitting, storing and processing it are ineffective. The use of information technology reveals the enormous potential of the computer as a learning tool. The creation and development of the information society presupposes the widespread use of information and communication technologies in education, which is determined by a number of factors.
## Key words:

"First, the introduction of ICT in education significantly accelerates the transfer of knowledge and accumulated technological and social experience of mankind, not only from generation to generation, but also from one person.

Secondly, modern ICT, improving the quality of training and education, allow a person to more successfully and quickly adapt to the environment and the ongoing social changes. This gives each person the opportunity to receive the necessary knowledge, both today and in the future post-industrial society.

Thirdly, active and effective implementation of these technologies in education is an important factor in creating an education system that meets the requirements of the information society and the process of reforming the traditional education system in the light of the requirements of a modern industrial society. "

The use of information and communication technologies in the educational process is an urgent problem of modern education. Today, a teacher in any discipline must be able to prepare and deliver a lesson using ICT. The use of modern technologies in education creates favorable conditions for the formation of the personality of students and meets the needs of modern society. Introduction to information culture is not only the acquisition of computer literacy, but also the acquisition of ethical, aesthetic and intellectual sensitivity. Informatization of the educational process is one of the most important tasks of modern education. It is associated with the development of the science-intensive base of educational institutions, the retraining of teachers and their adaptation to the latest teaching systems. The use of modern computer technologies, which are a fundamentally new means of teaching and a powerful tool of cognition, requires the development and qualitative improvement of methods and organizational forms of education. A lesson using ICT is visual, colorful, informative, interactive, saves the time of the teacher and the student, allows the student to work at his own pace, allows the teacher to work with the student in a differentiated and individual way, makes it possible to quickly monitor and evaluate the learning outcomes.

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So, the use of information technologies in the educational process, although a laborious process in all respects, but it justifies all the costs, makes learning more interesting, exciting and meaningful. The main indicator of my work is ¬ the intellectual development of students, the formation of their cognitive activity, knowledge, skills and abilities, ¬ implementation of the principle of individualization of the educational process while maintaining its integrity.

Teaching a student to work with information, teaching to learn is an important task of modern education. Improving the quality of education today is impossible without the use of new information and communication technologies.

Information and communication technologies in combination with advanced pedagogical technologies (personality-oriented approach and technologies of problem, programmed and project-based learning) can give very good results. Modern information technologies help to make the lesson informative, interactive and fun. The creation of multi-page sites is a practice-oriented activity of students, which works out possible professional skills with specific examples. Thus, a ready-made website on a given topic is the main criterion for assessing the practical activities of students and fully confirms the achievement of the goal of the lesson.

In most companies, the creation of a software product is carried out by a team of developers, so it is proposed to divide the class into subgroups, each of whose participants performs his task. Thus, such joint activity maximizes the activity-based approach to learning. In the process of such a lesson, students independently find material, collectively discuss the results of their work. This form of the lesson promotes the activation of the cognitive activity of students and the formation of their skills of independent work, including independent work with information.

In addition, students practice structuring web pages in Html using CSS style sheets. All of the above is aimed at the formation of personal, subject and meta-subject learning outcomes. A modern lesson is considered complete if it effectively uses various ICT tools. The lesson is designed for a computer class with a local network and the possibility of a network display, which contributes to the visualization of educational material. With the help of these means, the works of students of past years were demonstrated, on the example of which mistakes were sorted out and the positive aspects of the selected works were noted. The local network allows you to quickly collect the website pages created by students into one folder and demonstrate the finished product.

An example of an unconventional lesson using ICT

**Lesson title "Creating a thematic Web site"**
**Lesson topic: Hyperlinks**

**Teacher:** Kodirova Elena Vladimirovna
**Discipline:** Information Technology
**Topic:** Hyperlinks
**Lesson duration:** 80 minutes
**The purpose of the lesson:** Creation of a four-page website on a given topic.
**Tasks:**
1. Consider creating hyperlinks in HTML
2. Organize group work of students to consolidate knowledge in the field of developing web pages in HTML language and page design using CSS style sheets
3. Evaluate student work
**Expected results:**
Personal:
- to show interest in the culture and history of their people, their native country; - apply the rules of business cooperation: compare different points of view; reckon with the opinion of

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another person; - show patience and goodwill in a dispute (discussion), trust in the interlocutor (accomplice) of the activity;

**Metasubject results:**

- the ability to express their thoughts with sufficient completeness and accuracy in accordance with the tasks and conditions of communication; - formation of the ability to work in pairs and small groups; - analyze and correct deformed text: find errors, supplement, change, restore the logic of presentation; - search and selection of the necessary information; application of information retrieval methods, including with the help of computer tools

**Subject:**
- Ability to customize the appearance of the site using CSS style sheets
- Ability to properly structure a WEB page in HTML
- Use list structure
- Use images
- Embed a table on a WEB page
- Format tex

**Teaching methods:**
Joint activity organization technology, reproductive, heuristic;

**Forms of work in the lesson:** group, frontal.

**Lesson type:** combined.

**Technical teaching aids, software:** computer, Notepad ++, MultiPoint, Internet, Center for educational purposes.

**ICT efficiency:**
Working in a system with a common server allows a group of students to freely work on one page of the site. Saving pages to a shared folder allows you to combine them into a single site when you start the main page. Information search is conducted on the Internet.

| Lesson stage | Lesson stage content |
|---|---|
| 1. Organizational moment 2 minutes | Greetings, fixing the absent, checking the preparedness of students for the class. |
| 2. Analysis of typical mistakes, finished project 10 minutes | Using the MultiPoint system, examples of ready-made sites created by professionals and students of past years are broadcast. Website design is discussed: pros and cons.  The style sheet of the most successful site design is analyzed |

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| 3. Studying a new topic<br>8 minutes | The codes of the pages of one of the reviewed sites are being translated. Students should find lines of code they didn't know before.<br>Example line:<br>**Example string: \<a htrf='home.html'>to home\</a>**<br>Analyzing the names of the pages of the entire site, students conclude that after the word href the name of the page is indicated, and between the tags \<a> ... \</a> the word, when clicked on which the transition occurs<br> |
| 4. Division into groups "pig in a poke"<br>2 minutes | Students are offered a set of colored pencils (4 colors, quantity depending on students). Each student "blindly" draws one pencil, the color of which corresponds to a certain group: Red - Group 1 (Main page), Green - Group 2 (Images), Blue - Group 3 (table), Yellow - Group 4 (lists). |
| 5. Work on the site page. Pinning a new topic<br>33 minutes | Before starting work, the group is assigned responsibilities: - layout designer (responsible for the structure of the page - HTML code) - designer (responsible for formatting the page - CSS - code) - speaker - responsible for the content Each group is given a task: write a Web page and format with style sheets (CSS) (Appendix 1) After reviewing the assignment, the designers of the group are invited to jointly discuss the design of the future site: decide on colors, fonts, sizes, etc. Group work on the assignment. |
| 6. Package of the website<br>3 min | At this stage of the lesson, the Web site is "assembled"; for this, the guys write in one of the blocks of their page hyperlinks to the pages of other groups (according to previously agreed names) and save them on the server.<br> |
| 7. Job protection | When protecting "their" page of the website, the |

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| and job self-esteem<br>15 minutes | speaker was asked to tell: 1. about the "main" page element (main page, image, list, table) 2. about the selected page formatting elements (CSS) 3. how information was selected for the page content 4 . about difficulties in performing work After protecting their page, the group evaluates their work and answers questions from classmates |
| 8. Assessment of student performance by the teacher<br>5 minutes | In accordance with the criteria (Appendix 2) and taking into account the self-assessment of students, the teacher puts a mark |
| 9. Reflection<br>2 minutes | the teacher summarizes the lesson in the form of a frontal survey: What is a hyperlink? How is a hyperlink written? What is important to remember when creating a multi-page website? |

The use of this non-traditional type of lesson will be useful for teachers of computer science, with an in-depth study of computer science and information technology. Of particular interest, the materials of this lesson are for teachers who practice joint and practice-oriented student activities in their work, since as a result of the lesson, students receive a ready-made website, only in the case of correctly planned activities, both on the part of the students and on the part of the teacher.

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