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**Abstract.** This article proves about the use of integrated lessons in computer science, its advantages, and opportunities, components of integrated lessons, and interdisciplinary links of computer science.

**Keywords:** integration of computer science and sciences, integrated lessons, integrated lesson structure, presentations, tasks.

**ИНТЕГРАЦИЯ В КОМПЬЮТЕРНЫХ НАУКАХ**

**Аннотация.** В данной статье доказывается использование интегрированных уроков информатики, их преимущества и возможности, составные части интегрированных уроков, межпредметные связи информатики.

**Ключевые слова:** интеграция информатики и наук, интегрированные уроки, интегрированная структура урока, презентации, задания.

**INTRODUCTION**

In today's age of computerization and information, our children need to use computers anytime and anywhere to make their lives easier. Students should be able to perceive and process a very large amount of information, master modern tools and methods of working with them in any subject area.

The mission of a secondary school is to prepare a graduate who can apply their knowledge in real-life situations.

One of the directions of solving this problem can be considered the use of integration of informatics and information technologies with other general education sciences. In this context, information technology is becoming not only an object of study but also a learning tool and work environment. The main goal of integration is to create a holistic view of the world around the school student, that is, to form a worldview. Integrated lessons involve an equal combination of topics related to all school subjects, the study of which is interconnected.

**DISCUSSION AND RESULTS**

With the integrated construction of the educational process, opportunities are opened:

- Integration increases the information potential of the lesson;
- Integration helps to intensify the learning activities of students, helps to develop student's creativity, and allows them to apply their knowledge in real life;
- Interdisciplinary connections allow the learner to move modes of movement from one object to another, which facilitates learning and shapes the idea of the integrity of the world;
- The use of problem situations in the construction of integrated lessons activates the mental activity of the student;

- Integration allows the student to understand each stage of the work in a meaningful way and follow the process of action from goal to result.

The use of an integrated approach in the classroom allows the teacher to gain the ability to apply the knowledge gained by students in the study of other subjects. Students, on the other hand, understand that the knowledge gained in the subjects is closely interrelated and can be useful in daily life. Such lessons, clarity and practical application will appeal to children, allowing them to master the material more deeply.

Integration entered pedagogy in the early 1980s. The adoption of this term by teachers has been prepared by the development of the integration processes of education in the past decades and has led to the deep integration of these disciplines into each other. In particular, the penetration of mathematics, physics, and computer science into other fields of knowledge was associated with scientific and technological progress and the development of computer technology.

Integration is the deepest possible integration of generalized knowledge in a particular field into single learning material.

The result of integration is a new reality that preserves the core qualities of each component.

Integrated lessons give the student a very broad and vivid picture of the world in which he lives, the relationship between events and things, and the existence of a diverse world of material and artistic culture.

The main emphasis is not on mastering certain knowledge, but on developing different thinking. Combined lessons also include the mandatory development of students' creative activities. It allows you to use the content of all subjects, to draw information from different fields of science, culture, and art, referring to the events and happenings of life around you.

The need for integrated lessons depends on some factors.

First, the world of children around us is known for their diversity and unity, and often the objects of the school cycle aimed at studying some phenomena of this unity do not give a general idea of the phenomenon of dividing it into fragmented parts.

Second, integrated lessons develop students' potential, encouraging them to actively learn about the reality around them, and to understand and find cause-and-effect relationships. Develops logic, thinking, and communication skills.

Third, the form of holistic lessons is non-standard and interesting. The use of different types of work during the lesson keeps the students' attention at a high level, which allows us to talk about the adequacy of the lessons. Integrated lessons provide important pedagogical opportunities. Such lessons relieve fatigue, reduce student overload by switching to different activities, dramatically increase interest in knowledge, and serve to develop students' imagination, attention, thinking speech, and memory.

Fourth, integration in modern society explains the need for educational integration. Modern society needs highly qualified, well-qualified professionals. To meet this need training well-educated, well-trained professionals, starting with small classes with integration in primary school.

Fifth, integration creates opportunities for self-awareness, self-expression, and teacher creativity, and helps to uncover abilities. The advantages of integrated lessons are:

- Promotes the growth of educational motivation, the formation of students' interest in knowledge, a holistic scientific picture of the world, and a multi-faceted view of the phenomenon;
- More than ordinary lessons, they help to develop speech, to form students' ability to compare, generalize, and draw conclusions, intensify the learning process, to get rid of the overload;
- Not only deepen the understanding of the subject, and broaden the worldview, but also contribute to the formation of a multifaceted, harmonious, and intellectually developed personality;
- Integration is a source of finding new connections between facts that confirm or deepen students' observation results on different topics.

The structure of integrated lessons is characterized by clarity, conciseness, logical interdependence of learning material at each stage of the lesson, and the ability of the material to have a large volume of information.

In the form of integrated lessons, it is advisable to conduct generalizing lessons that reveal the most important problems for two or more subjects.

Integrated lessons are an important part of the system of interdisciplinary communication. Each of these classes is taught by two science teachers, for example, a math teacher and a computer science teacher in our system. The materials of such lessons show the unity of processes. Events in the world around us allow students to see the interdependence of different disciplines.

Interdisciplinary relations of computer science and mathematics are carried out in computer science classes. In these lessons, the teacher's task is to form the student's information competence, the ability to change information objects in practice using information technology. Such lessons also provide a visual demonstration of the connection between topics, teaching to apply theoretical knowledge in practice, teaching to work with a computer, activating students' mental activity, and encouraging them to learn on their own. Every student works, actively, and children develop interest, interest in knowledge.

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The first step in creating an integrated lesson is to agree on curricula on these topics: mathematics and computer science, to discuss and formulate common concepts, to agree on study time, and to consult with teachers.

Approaches to studying the same processes were then considered. Finally, the topics and syllabi of the integrated lessons were planned.

### CONCLUSION

Thus, integrated lessons give the student a very broad and clear idea of the interrelationships of the world, events, and things in which he lives, which solve many specific problems and their commonalities. The forms of the lesson may be different, but each must have enough material to use the active forces of the child given to him by nature.

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