

USING THE ELECTRONIC EDUCATIONAL RESOURCES IN BIOLOGY LESSONS

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Abstract: *the use of modern educational innovative technologies is a prerequisite for teaching a modern student, his intellectual, creative, moral development. When using modern technical means, the role of the teacher and student, the nature of the educational process itself, its method and content are significantly changing. This article is devoted to improving the quality of a training lesson using electronic educational resources in biology classes. The computer as a method and learning tool is used in a modern school multifaceted.*

Keywords: *electronic resources, computer training, biology lessons, teacher, pupils, biology, presentation, drawings, objects, textbooks, methodological materials, didactic materials.*

ПРИМЕНЕНИЕ ЭЛЕКТРОННЫХ ОБРАЗОВАТЕЛЬНЫХ РЕСУРСОВ НА УРОКАХ БИОЛОГИИ

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Аннотация: *использование современных образовательных инновационных технологий является обязательным условием обучения современного школьника, его интеллектуального, творческого, нравственного развития. При использовании современных технических средств значительно меняется роль педагога и учащегося, характер самого учебного процесса, его метод и содержание. Данная статья посвящена повышению качества учебного занятия с применением электронных образовательных ресурсов на уроках биологии. Компьютер как метод и средство обучения используется в современной школе многогранно.*

Ключевые слова: *электронные ресурсы, компьютерное обучение, уроки биологии, учитель, учащиеся, биология, презентация, рисунки, объекты, учебники, методические материалы, дидактические материалы.*

One of the advantages of ICT technologies is to improve the quality of training due to the novelty of activities, interest in working with a computer. In addition, computer technology can create conditions for children to work at an individual pace, comfortable mode, not only for strong and well-performing on the subject of pupils, but also for children with poor knowledge of the subject, as they can create a situation of success. The center of activity is the pupil who builds the process of cognition based on his individual abilities and interests. The teacher often acts as an assistant, consultant, encouraging original findings, stimulating activity, initiative and independence [1].

We believe that these technologies can create conditions for the formation of motivation, development of individual abilities, activate cognitive interest, and as a result – increases the effectiveness of training [2].

At the stage of explaining the new material it is advisable to use the following types of training activities:

1. Color drawings and photos. Textbooks and manuals cannot have much illustrative material, as this dramatically increases their cost. Digital technologies allow you to saturate the publication with a large number of color illustrations at the same cost. Color drawings and photos allow to expand the illustrative series, to give it more emotionality, proximity to real life. The use of a computer in the lessons allows a large illustrative material to be used in explaining the new material, which contributes to better learning of the material.

2. Slideshows - changing illustrations (photos, drawings) with a dictatorial support. The use of slideshows in explaining the new material provides an opportunity to illustrate the new material more clearly, to attract the attention of students. Slide shows are particularly useful in studying the diversity of living organisms of different systematic groups, as they allow you to illustrate the rich living world.

3. Video clips - perform a function similar to the used educational movies and videos, but in combination with computer technology bring them to a new level [3].

Video clips using a computer, allow you to use the video as a highly effective means of creating a problem situation in the classroom.

4. Animation - analogues of traditional fragments of "cartoons" included in educational films and videos to illustrate the mechanisms of certain biological processes, including the microcosm. Psychologically attractive due to the use of modern computer design, introduced into the consciousness of the schoolboy by television. In such animations, it is easier to stop and move to the desired fragment, due to the synchronized sound, a qualified explanation of the process with the necessary visual accents is possible.

5. Interactive models and drawings, schemes.

Interactive models - animation, the course of which depends on the initial conditions. Can be used to simulate biological processes. This type of object can include interactive tables in which fragments can "come to life" in short animations or be enlarged with the appearance of new details.

6. Multimedia presentations.

Creating presentation lessons requires the ability to use computer technology and a large amount of time, which is eventually justified by increasing the cognitive interest of pupils to the subject. This form allows us to present the training material as a system of bright reference images filled with comprehensive structured information in a similar order. In this case, different channels of perception of pupils are used, which allows to put information not only in factual, but also in associative form in the memory of students. The purpose of such presentation of educational information is to form a system of thought images in schoolchildren. The delivery of educational material in the form of a multimedia presentation reduces the training time. The use of multimedia presentations in the lessons allows building an educational process on the basis of psychologically correct modes of operation of attention, memory, social activity.

Computer as a method and means of learning is used in modern school multifaceted: as a teaching device, as a trainer, tutor, as a modeling device for a variety of situations, as a means of audio and visual clarity, as a printing house, to create handouts.

Also in the study of biology, the use of electronic and information resources with audio information of recording sounds of living and non-living nature is of great assistance.

In some biology lessons I demonstrate multimedia textbooks - a set of interactive learning tools that contain high-quality graphics, slides, videos and audio content in addition to hypertext. Such use of the computer allows to impart to pupils skills of research activity, to form cognitive interest, to increase motivation, to develop scientific thinking. For example: control and generalizing lessons on the topics: "Chemical organization of the cell"; "Hereditary information and its implementation in the cell"; "Invertebrates"; "Human Origin and Development", "Biology – grade 7", "Electronic resources in biology".

It is known that modern technologies should be regulated by hygienic standards. Long stay at the computer can adversely affect the health of the pupil, there is fatigue, which leads to inhibition of perception of educational material, distraction and addiction. Therefore, it is important to use health-saving technologies (physical training, quiet classical and relaxing music). Information technology should be used as elements in the classroom. And not all lessons should be conducted using multimedia presentations.

The use of ICT is also useful for the organization of independent work, project and research activities of pupils in biology and extracurricular activities.

The introduction of information technologies into the educational process ensures the unity of educational, developmental and educational functions of education. As a result of the use of ICT, the cognitive activity of pupils in lessons is developed, the quality of knowledge is improved, and there is an increase in motivation, participation of children in competitions, conferences, in project and research activities.

One of the most important tasks facing the school is not only to give knowledge to children, but to teach them to learn, to equip pupils with skills and abilities to work with the book, with other sources of information, to work willingly, independently, creatively.

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