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ADVANTAGES OF USING 3D STUDIO MAX FOR CONDUCTING CHEMICAL EXPERIMENTS

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ANNOTATION

The basis of a modern education system is quality and high creates a technological environment. Its creation and development technically complex, as well as training in such an environment to improve the system, information communication in the educational process serves to introduce technologies. Education in the process the use of multimedia technologies interactive lessons mode. The basis of a modern education system is quality and high creates a technological environment. Its creation and development technically complex, as well as training in such an environment to improve the system, information communication in the educational process serves to introduce technologies.

Keywords: Multimedia technologies, Organic Chemistry, Outright image and animation, Didactic bases, 3D Studio MAX.

INTRODUCTION

In the learning process, the use of multimedia technologies interactive lessons regime allows you to carry. We know that the reader, through the sense of sight, receives more information than the sense of hearing, and can clearly see its content, its essence. This, in turn, encourages teachers to look for ways and means to convey information to the student's mind easily and quickly, rather than through an oral explanation of an element. Hardware and software of information and communication technologies around the world.

We live in a time of rapid development. It is no exaggeration to say that there are no areas that are not covered by personal computers. For example, consider the following experiments: Experiment on "The effect of the catalyst on the reaction rate." Take two test tubes and pour 3 ml of hydrogen peroxide solution. Note the rate of gas release. Pour a little manganese (IV) oxide MnO2 on the tip of a knife into one of the solutions. What is observed? Catalyst for reaction rate draw conclusions about the effect of g. Experiments on the interaction of zinc with sulfuric acid. For the experiment, pour 3-4 ml of a solution of sulfuric acid H2 SO4 into the solution and add to it a piece of zinc. Observe the release of hydrogen write the reaction equation. Indicate the oxidizer and reducing agent based on the electronic equation.

Extraction of copper from the composition of the compound using iron. Pour 3-4 ml of copper sulfate solution into the solution. Its surface is a rust-free steel plate pour down. Do not let the top of the iron plate sink into the liquid. After 2-3 minutes, remove the plate from the solution. Rinse with water and observe that the copper separates freely on the plate.

Compute the general and electronic equations of the reaction. Specify the oxidizer and reducing agent. In addition to conducting and explaining these experiences in practice, providing information through multimedia e-learning resources also serves to increase the effectiveness

of teaching. Because multimedia is a computer or other digital data the text provided to you by other working technical means, complex visual information consisting of image, sound, and video is calculated.

Outright image and animation, video and because of the text being received in the form of an attractive sound you can feel the information broadly in your mind and imagination. If this process if interactivity is applied, then the sphere of influence is further increased. A number of works on the use of information and communication technologies in teaching science have been carried out. In particular, H. Mahmudova's research work includes an automated training, control program based on new information technologies' system was created, and with the help of them, a method of conducting laboratory training in the "Optics" section of the general physics course was developed.

Didactic bases for the use of computer programs in the study of physics have been developed. In the research work of B.Sattarova pedagogical bases of introduction of modern ICT in transfer of astronomical knowledge in higher pedagogical education, the electronic educational-methodical complex "Astronomy" for the purpose of development of independent educational activity of students and developed a methodology for using software products designed to be performed on a computer in astronomy classes. In the research work of Sh.Tashkhodjaev identified ideas and concepts that can form a molecular-kinetic theory on a computer, methods of their implementation are methodologically based and imitation-multiplicative dynamic models and teaching methods aimed at improving the quality of learning, criteria for determining effectiveness. O. Tigay's research work is scientifically based on the didactic requirements for modern computer software and pedagogical tools for teaching physics.

Created an electronic textbook of instructional control. LT Zaylobov's research work on oxidation-reduction processes in general chemistry dedicated to improving teaching based on information technology. The research has developed didactic conditions for the use of information technology tools, scientific and methodological bases for the use of information technology tools, which allow to increase the effectiveness of teaching. I.E. Shernazarov's research work on "Integrated technologies and their use in the teaching of" Organic Chemistry "in academic lyceums «Methods, forms, methods and tools of teaching using information and communication and pedagogical technologies are indicated in teaching. It was also recommended to include information and pedagogical technologies in the educational process, which is organized in advanced training and retraining courses for teachers of chemistry in the field of natural sciences of academic lyceums.

Based on the analysis of the literature, in the teaching of chemistry in general secondary schools we believe that it is necessary to study the possibilities of using 3D Studio MAX when performing chemical experiments. To do this, you create objects in 3D Studio MAX in the construction area. To do this, the cursor shape changes when you select the desired tool and move the cursor to the construction area.

Using the mouse, you give the dimensions of the object. You can use special camera and lighting tools to create film effects on created objects. You can select different materials for the object surface that is; you can give it a transparent or rough surface, for example.

You can create small animations by moving objects created on the construction site. To do this, press the {Animation} button to move to the last frame by moving the object, changing the frames.

Then press the {Play} button from the animation panel. As a result, frames are exchanged and animation is created. It saves the created animation in the form of a file in computer memory and reads any video images we can read using the program we get. The file is saved in a format with the extension.

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