FUNDAMENTALS OF WOOD MATERIALS AND HAND PROCESSING TECHNOLOGIES

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Abstract: This research article presents ideas on interactive methods recommended for use in technology lessons and their content. Examples of modern methods and various types of interactive methods are provided.

Keywords: innovative technology, method, technology, interactive, innovation, invention, conversation, problem situation.

YOG‘OCH MATERIALSHUNOSLIGI ASOSLARI VA ULARGA QO‘LDA ISHLOV BERISH TEXNOLOGIYASI

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Annotatsiya: Ushbu ilmiy maqolada texnologiya darslarida foydalanishga tavsiya etiladigan interfaol metodlar va ularning mazmuni xususidagi fikrlar keltirilgan.Turli ko’rinishdagi zamonaviy metodlar va interfaol usullardan namunalar keltirilgan.

Kalit so’zlar: Innovatsion texnologiya, metod, texnologiya, interfaol, yangilik yaratish, ixtiro qilish, suhbat, muammoli vaziyat.

ОСНОВЫ ДРЕВЕСНЫХ МАТЕРИАЛОВ И ТЕХНОЛОГИИ ИХ РУЧНОЙ ОБРАБОТКИ

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Аннотация: В данной научной статье представлены идеи об интерактивных методах, рекомендуемых для использования на уроках технологии, и их содержании. Приведены примеры современных методов и интерактивных методов различных типов.

Ключевые слова: инновационная технология, метод, технология, интерактивный, инновация, изобретение, беседа, проблемная ситуация.

The curriculum represents a system of knowledge, training, and skills acceptable from a pedagogical point of view, which students must master. The curriculum for the Woodworking subject is determined in accordance with production-specialized characteristics and the program and includes a system of practical knowledge, training, and skills. A thorough mastery of this curriculum results in the formation of a worker in a specific profession and with a certain level of qualifications [1].

The content of a carpenter's work activity is determined by production equipment, work tools, technological processes, work operations, and methods.

Depending on the type of equipment used in the technological process, the carpenter's work operations vary, but the following general tasks can be distinguished in their work activity: task analysis, drawing, and technical specifications; selection and preparation of work objects (raw materials, parts, assemblies); determination of methods and sequence of operations; selection and preparation of tools; selection of the workpiece operating mode; preparation of the machine for work (inspection, tool installation, machine adjustment, lubrication); placement and fastening of raw materials on the machine; movement of the tool or workpiece; Technological processing of a part,

handling of a tool or workpiece; removing the product from the machine; inspecting the finished product [2].

Teaching methods are understood as methods of collaborative work between the teacher and students in the educational process, with full understanding. All teaching methods are subject to two fundamental requirements: first, they must facilitate students' independent cognitive activity during the lesson, and second, they must ensure a deep understanding and complete assimilation of the material being studied. A system of methods based on the level of students' independent activity in acquiring knowledge fully meets these requirements [3-4].

Explanatory and demonstration method: the teacher provides ready-made information through various means, and students perceive, understand, and remember this information. Reproductive method: the teacher, using a system of instructions, assignments, and exercises, organizes a lesson that allows students to review the knowledge and work methods they have learned. Students learn to manufacture an object from a model and acquire skills. As students' knowledge and skills grow, they begin to increasingly use both methods together. Problem statement: The teacher poses a specific problem, solves it independently, searches for a possible solution, reveals logical paths to finding it step by step, and demonstrates scientific and evidence-based thinking to students. Students observe their thinking changing, participate in reasoning, and master the stages of problem solving.

One of the main requirements for education is the development of a base of highly qualified teachers who are experts in their field, as well as a properly organized methodology that ensures the selected technologies and methods are appropriate to the topics [5]. Developing a methodology leads to students' thorough acquisition of specific theoretical knowledge, saves time, encourages each student's activity, develops their ability to think freely and independently, and develops the skills to defend their own

opinions. To improve the effectiveness of technology-based teaching, teachers must effectively utilize advanced pedagogical technologies in all learning processes, search for relevant educational literature in subject areas, and collaborate with colleagues remotely on social media, exchanging ideas. Currently, it is a form of training, methodology and ICT tools used to solve existing problems in the field of education or the educational process based on a new approach and capable of guaranteeing highly effective results. For example, in the 5th grade, an experiment was conducted on the topic "Wooden Joining Technology." Detailed wooden structures are also widely used in carpentry. This, in turn, serves to increase efficiency without wasting wood. Various methods of joinery are also widely used in carpentry and construction work.

To manufacture various wooden products and perform other tasks, it is necessary to measure and plane wood materials. Special tools are used for this.

Any wood must be processed before use. This is often done in factories using specialized machines that are not available for home use. If a small amount of material needs to be processed, manual woodworking is used [6].

What is manual woodworking?

Mechanical woodworking is a type of material processing that involves changing the shape and size of wood while maintaining all its properties. Mechanical processing can be carried out using specialized technologies, as well as hand tools. This mechanical processing of small volumes of wood with hand tools is called manual woodworking. The technology for manual woodworking depends on the processing method. Manual woodworking includes the following methods:

— marking;

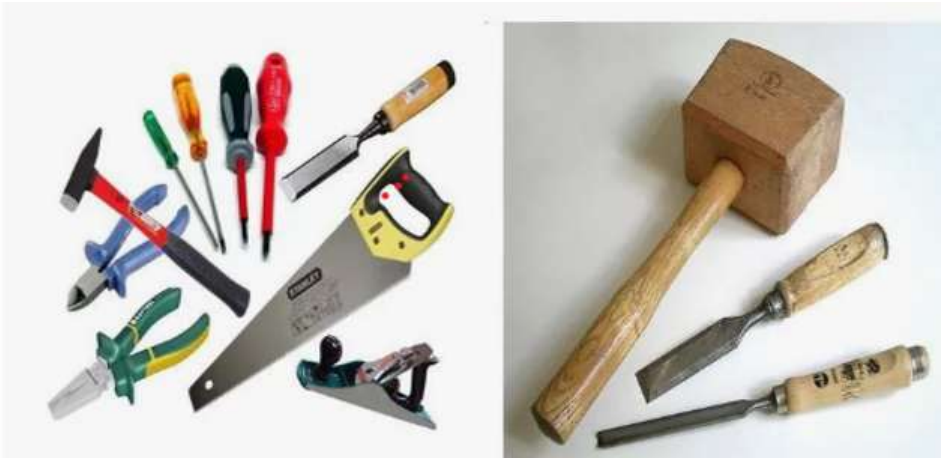
— reshaping and sizing: sawing;

— surface smoothing: planing, sanding, and lapping;

— burning holes using drilling, chisels, and gouges.

The precise dimensions and quality of wood and wood-based products, the cost of labor, and the savings in materials depend on the proper use of measuring and planing tools.

Measurement is the process of determining the size and shape of a piece of wood. Such tools include rulers, tape measures, measuring tapes, and measuring templates.



Yog'ochga ishlov beruvchi anjomlar

In conclusion, it can be said that in science and technology, woodworking, manual labor, and the proper use of tools are of great importance.

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