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# TECHNOLOGICAL EDUCATION AND PROFESSIONAL CHOICE

# **PLANNING**

### Abdullayeva Kamila Tursunovna

*Uzbekistan* 

**Abstract** Technology teacher uses the method of interview to teach students the properties of solids, types of friction (physics), properties of polygons (geometry), properties of mixtures, emulsions and mineral oils (chemistry), etc. and based on the knowledge gained in these disciplines, the structure and cutting process of metals to be processed, the sharpening angles of cutting tools and the composition and properties of the fluid used to cool the part during processing, the friction surfaces of parts on the machine and friction by applying machine oil explains the methods.

**Basic phrases:** Planning, curriculum, syllabus, calendar thematic plan, interdisciplinary link, lesson plan, lesson description.

**Introduction.** Technology education, as a subject taught in school, provides endless opportunities for students to learn to apply their knowledge of general education subjects in practice. By setting up education correctly, it is important to help students see the objectively existing connections between the laws of nature and their manifestations in life. For example, in a physics course, students learn the properties of solids, such as force, mass, speed, friction, and so on. At this time, if they do not know the physical and mechanical properties and structure of the metals being processed in the training workshops, if they cannot choose the correct size of the cutting tool depending on the material being processed, if they do not know how to reduce friction of machine parts and etc. if they do not know, their previous knowledge will remain superficial. The teacher does not try to convey ready-made knowledge on the part of the teaching material that is strongly related to the students 'knowledge of the sciences in the natural-scientific cycle. Teachers of general education subjects should use students' practical experience in Technology to gain a deeper understanding of the laws of nature being studied. [A.1;, 2;, 3;].

Goals and objectives of planning. The purpose of technology education and career planning is to

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clearly organize the learning process, which should fully meet the principles of education and the requirements of the SST. Technology education, unlike other general education disciplines, has its own characteristics in the organization of education. By properly planning the learning process, teachers and students should be able to plan their work in accordance with the objectives and goals of Technology Education, its principles and other requirements for working with students. can be seen.

Planning the learning process plays a key role in preparing the teacher for the lesson. The preparation of a teacher for a lesson involves two stages. The process begins with the study of the curriculum, a calendar-themed plan and program related to vocational education. As the technology education teacher becomes familiar with these documents, he or she will have a clear idea of what types of professions and to what extent they need to develop general Technology knowledge and practical skills in the appropriate class of students. Students will learn what tools, equipment, and tools are needed to do this, what items they will need to prepare in their classes to fully meet the requirements of the Technology Education Program, and what materials will be required to make them accordingly.

When planning the learning process, the teacher solves the following main didactic tasks: it is possible to provide the educational process in a timely manner, in particular, the timing of the provision of workshops with various materials and tools is known in advance; The relationship between the content of technology classes and the content of other academic disciplines is highlighted; mutual coordination of different workshops is achieved, it is very important to adjust the work of students in time during the workshops, the effective use of the material supply base; facilitates the monitoring of the implementation of the curriculum for the teacher in summarizing the quarterly, semi-annual and annual results. Correct selection of educational and production facilities that fully meet the content of the training material on technology, in accordance with the requirements of the organization of technology-based training in the field of technology education and career guidance should ensure effective implementation. [A.3;, 4;, 5;].

**Technology education, career planning documents.** Documents planning for technology education and career choice should be developed taking into account all aspects of the learning process.

**Curriculum**. The organization of technology education and career guidance is based on the curriculum. Curriculum - is a government document. The subjects taught in each class are a document

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indicating the number of hours per week and the total number of hours to be taught in that class during the school year, approved by the Ministry of Public Education.

**Curriculum**. Available separately for each subject, the Technology Education curriculum is different from other subject curricula. Curriculum on technology education In each class, what knowledge and skills should be equipped with students in this subject, what work objects can be selected to equip them with these skills, the equipment used in their implementation, technical - The volume and consistency of technological data, which sections should be studied, as well as the number of hours allocated for the study of each section, approved by the Ministry of Public Education. ladi.

Table 1

	Planning documents	
Technology education	Curriculum	Curricula for natural sciences
curriculum		
List of work to be done in the	Thematic lesson plan	Graph of connection of
training workshop		technology education with
		sciences in the natural-scientific
		cycle
Calendar themed plan		
Methodical literature	Lesson plan	
Textbook	Abstract	Training

**Create a calendar themed plan.** Calendar thematic plan by each school teacher based on the curriculum and syllabus, taking into account local conditions is developed and approved by the school principal through the discussion of the school methodological association, pedagogical council.

In the calendar thematic plan, each section is divided into topics, which are determined in what sequence, how many hours and in what parts of the academic year. What form and method of teaching these topics should be taught, what work should be done in teaching each topic, what equipment, raw materials, technical and technological documents are needed for this, as well as technical means of teaching, literature and it is a document that predetermines which methodical manuals will be needed and is designed for each class for half a year or a year.

The full development of a calendar thematic plan requires that all columns of the following table be

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completed in a methodologically correct manner.

Table 2

17	Books 91	Measureme Equipment	∞ Raw material	Object of work	9 Lesson method
		Worker  Equipment and devices  Technical documentation  Interdisciplinary connection  Technical means	Measureme Equi Worker  Equipment and d  Technical docum  Interdisciplinary  Technical means	Raw material  Measureme Equi  Worker  Equipment and d  Technical docum  Interdisciplinary  Technical means	Object of work  Raw material  Measureme Equij  Worker  Equipment and d  Technical docum  Interdisciplinary  Technical means
	,	Worker  Equipment and d  Technical docum  Interdisciplinary	Measureme Equij Worker Equipment and d Technical docum Interdisciplinary	Raw material  Measureme Equi  Worker  Equipment and d  Technical docum  Interdisciplinary	Object of work  Raw material  Measureme Equij  Worker  Equipment and d  Technical docum  Interdisciplinary
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To complete this table, you will need a list of work to be done in the workshop and a schedule of links between technology education and the sciences in the natural-scientific cycle. Similarly, this list and chart are not enough to create a calendar thematic plan of lessons, they are interrelated, because it is necessary to choose which work object for which subject and its sequence or which subject to other subjects. in order to determine whether a topic should be linked, it will first be necessary to determine the topics to be covered in the Technology Education classes and their sequence. Therefore, the full development of a calendar themed plan involves two steps.

In the first stage, the name of the topics to be covered, the sequence of their teaching, the hours allotted to it and the time of teaching are determined.

In the second stage, after the list of work to be done in the training workshop and the schedule of connection of technology education with the sciences of the natural-scientific cycle, the remaining columns will be filled.

the first stage of developing a calendar thematic plan for lessons, it is necessary to get acquainted with the hours allocated for chapters from the curriculum for each class. The relevant sections define the technical information to be provided to the students and the content of the practical work to be performed, the curriculum separates the chapters first, then the topics covering the content of these chapters.

The order of teaching the topics is analyzed and arranged appropriately, the total number of hours allocated for the chapter in the thematic plan part of the program is distributed to the topics taking into

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account the content, size and possibilities of mastering.

The fifth pillar form of teaching is how they are organized to equip students with knowledge, skills, and abilities. There are several different forms of teaching technology education, which are selected taking into account the nature of educational work in the school, local conditions and the general goals and objectives of education. Organizational form refers to the ways in which students organize and manage educational-technological activities aimed at achieving the goal set by the teacher. These forms are selected according to the content of each topic and its objectives. Sometimes a single lesson can be organized in 2-3 different ways.

In the sixth column, the method of teaching is the assimilation of knowledge, skills and abilities by the teacher, and characterizes the specific ways in which students acquire these knowledge, skills and abilities.

The object of the work in the seventh column is to ensure that the principle of unity of theory and practice is followed in the teaching of each subject. Therefore, the work given must be consistent with each other. A relative solution to this is to use a list of work to be done in the training workshop. The first object of work is to determine which subject should be completed in the teaching, starting from which subject to teach, and then it is completed taking into account the time allotted for it. This should take into account the time spent on introductory instruction and other organizational work in each lesson.

Columns eight through ten indicate what raw materials (exact type, dimensions) are needed to prepare the work object, what measurements are required to perform and process, what tools, technological maps are needed.

The eleventh column shows the equipment and devices, tools or devices used in the work.

The twelfth column includes technical documents, passports or other technical documents of equipment or devices.

The thirteenth column shows the interdisciplinary links, based on the graph of the relationship of technology education with the disciplines of the natural-scientific cycle, each topic can be linked in advance to which topic of the department studied in other disciplines.

The fourteenth column shows the technical means of teaching - what type of OTV can be used (taking into account the conditions) in teaching the relevant topic.

The fifteenth column provides information on the occupations and occupations of the worker relevant to the subject.

In the sixteenth column, the teacher and the student clearly indicate which page of the literature or

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manual, how many paragraphs, the content of this topic can be read.

In the seventeenth column, comments can be made, and if for some reason there is a change in the curriculum or calendar thematic plan, instructions and other comments on the implementation of the program can be given. [A. 5;, 6;, 7;].

Develop a list of work to be done in training workshops. The list of work to be done in the training workshop - to determine in advance what work can be done in each class during the school year, to show the balance of theory and practice in this work and how to do them in sequence. as a document, each school teacher develops a calendar thematic plan, taking into account local conditions, incoming orders, a sample list of work objects specified in the curriculum, and approved by the school principal. A list of activities to be done in the workshop and a calendar thematic plan will be developed at the same time. The list of work to be done in the training workshop begins with determining how much time students will be engaged in practical work during the year, as this work will be done by the students during the lesson. To do this, the teacher analyzes the calendar thematic plan and identifies the following questions: What topics are not taught in practice, for example, in theoretical lessons, "The structure of wood and their properties", "General structure of the lathe" and the principle of operation "," Excursion to enterprises ", etc.

The total sum of practical hours is determined. In each practical session, the teacher should spend 1/4 of each lesson, ie up to 25%, on the organizational part of the lesson and the introductory instruction, as well as on the completion of the lesson. Taking into account the above, it is determined how long students will work during the academic year or quarter to complete practical work in the relevant department.

Suppose that X hours are planned for woodworking in the attached class, of which U hours are the only time that theoretical lessons are appropriate. XU hours remain for practical training. The net hours that students will be engaged in practical work will be as follows.

$$(XU) * \frac{3}{4} hour \leftrightarrow (XU) * \frac{3}{4} * 45 \approx 34 * (XU) min$$

This means that students should be able to complete the planned work in the chosen section in 1 hour. The second task that needs to be done in this practical work is to determine what work objects can be done in the appropriate class.

The syllabus provides an approximate list of several work objects recommended for completion in each class in each section. In addition, orders received by the school may also be work objects required for the needs of the school. The planning of these work objects by classes takes into account the topic studied in each class, the types of operations mastered by students and the age and

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individual characteristics of students, if the above work objects meet the requirements of the curriculum, first of all the order received by the school and the work facilities required for the school are planned.

Up to the class corresponding to the horizontal graph, and what types of work students will learn in that class are indicated in the program, everything is recorded in the sequence of completion of a work object. In the second vertical column, the projected work objects are easily overwritten. Each type of work object will be marked with a pen plus (+). The object of work in which the least types of work are involved is placed in the first step, and the most involved is placed in the second, third, and so on. Students in this class are written instead of a plus sign, expressing the time spent in each of the operations on the relevant work object in minutes. How much time is spent on each work object is equal to the sum of the time spent on the operations in it.

The time when students are directly involved in practical work is determined.

X - 14 hours

$$(XU) * \frac{3}{4} = (14-6) * \frac{3}{4} = 6 \text{ hours} = 6 \times 45 = 270 \text{ min}$$

It is 6 o'clock

This means that the objects of work should be selected in such a way that all of the above types of work are involved and can be completed by the student within 6 hours. You can choose from them (if not enough, you can add). The following table is completed to determine which works are involved in these work objects. So, for a 270 min or 6 hour practical work process, the last 3 work objects are sufficient (this also depends on the simplicity or complexity of the selected object structure, so its sketches It is recommended to develop a list of work to be done in the training workshop for each department. [A.5;, 7;, 8;].

The plan of interdependence of sciences. Graph of connection of technology education lessons with sciences of the natural-scientific cycle - deep, scientifically based understanding of the essence of each topic by students, effective use of time, application of theoretical knowledge in practice, life and production is created by the teacher in order to broaden their knowledge, expand their polytechnic understanding, and it is reflected in the calendar thematic plan.

This document, which plans the educational process, reveals the interrelationships of physics, mathematics, chemistry, drawing and other disciplines taught in school technology education. Connections between disciplines are of great importance in the educational process. In today's school, in addition to providing students with solid knowledge, technological skills and competencies, their

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in-depth and comprehensive approach to the studied phenomena, the production of acquired knowledge and the scientific explanation of technological phenomena, the acquisition of knowledge independently should be able to use.

In the development of the plan of interdependence of disciplines, teachers of general education subjects such as Technology Education, Physics, Mathematics, Chemistry, Biology, Drawing, etc. are involved. Each of them offers specific examples of how the curriculum relates to other disciplines, based on a careful analysis of the content of their subject, which is discussed, identified and supplemented if necessary. table, which indicates the duration of study of this or that subject for each subject.

Successful implementation of the interdisciplinary plan of sciences ensures not only high-quality training of students in technology, but also a wide range of their general knowledge. [A.1;, 3;, 8;].

Lesson plan and its description. The lesson plan is one of the main curriculum documents, which is developed by the teacher on the basis of the curriculum and calendar thematic plan. It indicates the educational goals of the lesson, teaching and educational issues, as well as the structure and stages of the lesson, the time allocated to each stage, the sequence and content of the teaching material explained by the teacher, the nature and content of independent work. , homework, etc. are represented. Based on the selected form and methods, a document is prepared by the teacher for each lesson as a document showing how to organize the lesson, its structure and the sequence of its content. approved by the Deputy Director before each session. The structure of the lesson plan differs drastically in terms of theoretical lessons, practical lessons, mixed and excursion lessons. [A.6;, 7;, 8;].

#### **Conclusion**

The main goal of the lesson plan is to help you plan the teaching process properly and increase its effectiveness. For a lesson to be successful, it is necessary to determine the purpose of the teacher's work in organizing it.

The lesson plan and its description are documents indicating that the teacher is prepared for the lesson. The syllabus is written in the sequence indicated in the syllabus, which contains the basic concepts, diagrams and charts that need to be conveyed to the students, as well as information that is relatively difficult to remember. In this case, it is required not to exceed the standards specified in the curriculum . The lesson description is written on the basis of textbooks and methodical literature, as well as the teacher's experience, approved by the deputy principal for academic affairs at the same time as the lesson plan, and the teacher enters the lesson with the lesson plan and syllabus.

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