Translations, Articles and News

Sukhomlinsky News

No. 64
December 2020

Very best wishes for 2021!

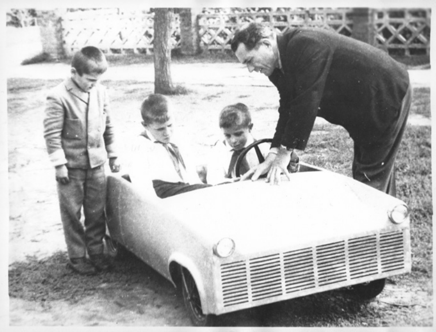
Dear readers,

I would like to wish all subscribers to 'Sukhomlinsky News' a happy and healthy New Year. Successful trials of several vaccines around the world offer a glimmer of hope that during 2021 our lives can return to something resembling normalcy.

In 2020 many schools have been forced to modify their learning programs so that they can be conducted online. The types of practical training that Sukhomlinsky is describing in this month's issue can only be conducted face to face, in workshops and on the land. The sort of peer mentoring that played such an important part in Sukhomlinsky's approach to education also requires students to congregate on site and interact face to face. Let us hope that school closures will soon be a thing of the past, and that efforts to combat the pandemic can bring the world's peoples closer together.

Best wishes,

Alan Cockerill



Work education

In this issue we continue our translation of extracts from the sixth chapter of *Pavlysh Secondary School*, which is on work education.

Teaching work skills (continued from last month)

In the primary classes, children begin to use tools. We attach great significance to the children's hand tools. During their work lessons in the metal workshop, middle school students prepare knives and cutting tools for the junior classes to use for wood carving, and for cutting out paper and cardboard. We have made a special machine tool that the little children use to make little clay bricks for building toy buildings. Little chisels, hatchets and hammers are all used in children's work. Learning to work with materials, children gradually progress to the preparation of objects in which the perfection of the whole depends on the perfection of the parts and their interaction.

Precise calculation, accuracy in processing and assembling, precise interaction of the various parts that go to make up the whole, these features of work in the primary school are very important for further instruction in work skills. For instance, students in grade four use springs and shears to make tools for cutting branches from little trees.

In life, some professional skills become universal skills (for instance, the ability to use a simple lathe). They become part of the ABC of work. For this reason, we have added the ability to turn wood or metal on a lathe to our primary school curriculum. Using a miniature lathe, children turn cylinders and bolts from wood and soft alloys.

Working on the experimental plots, young school students learn the skills of creative agricultural work. They do not carry out auxiliary, secondary types of work, but initiate and complete work assignments that are comparatively complex for their age, and achieve material results. From grade one, children begin several cycles of agricultural work (on small plots), preparing the soil and increasing its fertility, looking after trees, growing grain and other industrial crops. One cycle is planned for a year, one for four years, and a third for seven or eight years.

[Continued on the following page]

Considerations in work education (cont.)

During their primary school years every child produces a high-yielding crop: harvesting two ears of grain where people previously harvested one, and understanding the dependence of nature's gifts upon human reason, will and creativity. Individual work experience plays a major role in the formation of this conviction. Each student in grade two is allocated a square metre of earth on which they grow 500 grams of wheat, which equates to a yield of five tonnes per hectare. In grades three and four they produce an even higher yield: 600 or 700 grams from one square metre (six or seven tonnes per hectare). The children carefully nurture each plant and count every grain.

By the time they complete primary school, each student has grown some three or four-year-old cuttings (this work begins in the first autumn or spring of their school life). In addition, each student plants a fruit tree during the first autumn of their school studies, which, by the time they complete primary school, has begun to bear fruit.

The aim of work in the workshops and on the experimental plots in grades five to eight is the further development of skills, the enhancement of the socially useful and productive aspects of work, and differentiation of interests on the basis of developing students' talents and abilities. Students develop skills in metalworking, turning, electrical wiring, horticulture, and animal husbandry. Experience has convinced us that in grade eight it is expedient to transition to the study of the foundations of production. (In grade eight our students study internal combustion engines, the operational principles of the most common industrial machines, and electrical wiring.)

During the middle years, the study element of work is combined with production to an even greater extent. Not just to learn how, but to do something useful and necessary, that is one of the main rules of work education. In our workshops and work rooms, students in grades five to eight make study aids and equipment, working models, tools, mechanical implements, and equipment for technological processes. Each year every class or group of students manufactures relatively complex mechanical equipment: lathes, drills and milling machines, equipment for working the soil or managing crops, and so on.

All this work has a polytechnical orientation and facilitates the all-round development of the personality. Adolescent students already have some familiarity with general principles of production and have acquired skills common to a number of concrete areas of work.

We pay particular attention to the preparation of visual aids for mathematics, physics and chemistry, the manufacture of simple, primitive tools for working on our experimental plots and in our workshops, and simple equipment and teaching aids for mechanics and electrical engineering. However much technology develops, whatever heights technological thought reaches, the pathway to the highest levels of scientific thought and work culture will always be through a mastery of the ABC of technology, through studying internal combustion engines, turbines, band and circular saws, and so on. Just as it is impossible to reach the outer frontiers of science without knowing the alphabet, it is impossible to master complex technology and achieve a high level of work culture without knowledge of simple tools, equipment and mechanisms.

During grades five to eight each student completes the

following individual assignments on our experimental plots: to grow grain and other industrial crops (from three to ten crops), to graft cultivated varieties of fruit trees to 25 rootstocks, to cultivate young fruit trees, to lay out a plant nursery, to increase soil fertility.

Each assignment has an experimental, research orientation. Some students, for example, will investigate the quality of seed and fertiliser. In this case, work on the experimental plots is combined with work in the nature laboratory. Children and adolescents who are interested in agricultural production take on comparatively large plots (20-100 square metres) and by applying the achievements of science, especially chemistry, they produce yields two, three or four times greater than are achieved on the collective farm fields.

The girls, like the boys, master skills that are essential in an age of highly developed technology, but for the girls we select work tasks that require less physical effort, and more precision, constructive creativity, and expertise. If the boys, for example, are making a massive metal lathe, the girls are busy making some automatic equipment, or a model that is based on the principles of automation.

Work instruction in grades eight to ten consists of theoretical lessons and of work, in the course of which students master skills. The theoretical course includes such topics as a general description of the branches of industry in our country, the basic features of the main branches of industrial and agricultural production, a description of energy sources, general principles of the structure and functioning of engines and industrial machinery, the structure and applications of internal combustion engines and electric motors in industrial machines, and chemical technology used in the most common areas of work.

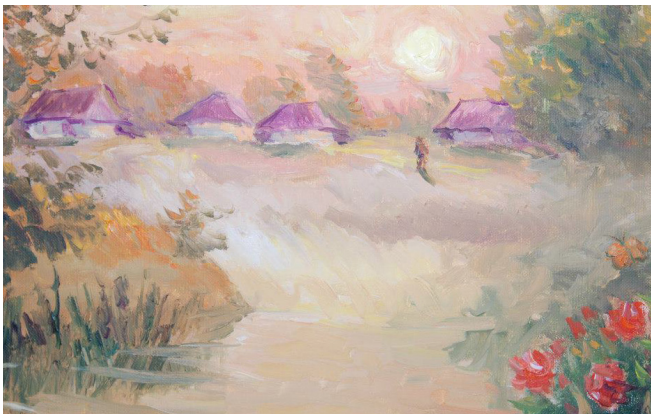
At practical lessons, students master skills of a polytechnical nature, that is, those that find application in many branches of production. In grade eight, students study stationary internal combustion engines and industrial machinery, and also electrical wiring and generators. In grades nine and ten, they study tractors, cars, and combine harvesters, and continue studying electrical work. They study radio technology with elements of electronics and automation, and learn to work with lathes, drills, and milling machines. The acquisition of skills is closely connected with construction and modelling, with the repair and restoration of machines and mechanisms, with the manufacture of metal-working tools and measuring instruments. In grades eight to ten all students study a theoretical course in horticulture and animal husbandry, and complete a practicum associated with the course during an especially programmed time during the summer. The practicum in horticulture and animal husbandry is usually conducted simultaneously with tractor work. During grade ten, students study an eighteen-hour course in agricultural chemistry, and complete practical work associated with that course.

Work instruction in the senior classes is thus built on a broad polytechnical foundation, and theory is closely associated with practice. There are strong inner links between the theoretical course in the foundations of production, and mathematics, physics, chemistry and biology. Thanks to these links, three hours a week is sufficient for work instruction during the senior years. For instance, the theoretical course in agricultural chemistry fits into eighteen hours only because the teaching is based on active application of knowledge acquired during the study of inorganic and organic chemistry.

At first glance it may appear that studying the foundations of production during the senior years places a heavy burden on students. They are studying engines, generators, tractors, cars, electrical wiring, radio technology, horticulture, and animal husbandry. This would indeed be an excessive burden, if our children had not already been involved in various clubs during the early and middle years, where they learnt about machinery, learnt how to use metal-working machine tools, and took a keen interest in experimentation. We could not study electrical wiring and radio-electronics in such a short time (around 36 hours) if each student in grades five to eight had not made a generator and a radio with their own hands in the technology clubs. Early involvement in productive work lightens polytechnical education, and gives students in the senior years the opportunity to master a wide range of polytechnical skills.

Thanks to the polytechnical nature of the knowledge and skills acquired, every senior student has the opportunity to choose a profession in which they can display their abilities and talents. We also need to keep in mind that along with the compulsory work instruction lessons, along with the compulsory range of knowledge and skills, there are extracurricular activities: clubs that function outside school hours, scientific subject clubs, where everyone is engaged in their favourite activities. These involve reading and work. If not for these spheres of intellectual and work activity, successful polytechnical education and work instruction in the senior years would be out of the question.

[To be continued next month.]



Stories

Grandma's hands

Grandma knits stockings. Her old, overworked hands move rapidly. Now the right and left hands come together, one helping the other. Now they have stopped and seem to be consulting each other. They consult each other, and then get back to work. They begin to knit even more quickly. But in the evening the fingers of one hand squeeze the fingers of the other hand. They are thanking each other for their cheerful work.

But then grandma falls ill. The illness has laid her low, and she is lying in bed. Mum says, 'It is the years that have laid her low.'

Her hands are motionless. They lie on her chest next to each other. Her fingers move slightly, as if her hands want to be with each other. But the years do not allow it. The right hand creeps over to the left, and her fingers grip each other, and are still. Her hand is complaining of the pain.

Gradually grandma gets better. Her hands come to life. She still does not get up, but her hands cannot live without each other, and they knit some stockings. But why do they keep consulting each other? Can they really have forgotten how to knit?

The wooden stork

In a village lived a family: a husband and wife and their little boy Seryozha. Seryozha's grandfather also lived with them, but not in the house. He lived in a tiny room allocated to him by his son, Seryozha's father.

Seryozha's birthday was approaching. He was turning five. The young parents decided to celebrate the birthday of their only son. They invited many guests to the party: the collective farm chairman, the team leader, and neighbours.

The only person they forgot to invite was Seryozha's grandfather. For many days he had been making a present for Seryozha: a stork that he had carved from wood.

In the evening, when all the guests arrived with presents, celebrations began under the apple trees. But Seryozha's grandfather was sitting in his tiny room. The wooden stork stood on a little table in front of him. The bird raised its head and looked out the window, as if listening to the music that carried from the garden.

The green saucepan

Every evening Tolya crawls onto his grandma's bed and she tells him stories. When his eyes grow heavy with sleep, she carries her grandson in her arms and puts him to bed. These are the happiest moments in the boy's life.

Grandma is often sad. Tolya asks her, 'Why are your eyes sad, grandma?' But she does not tell him.

One day Tolya wakes up very early, and sees his grandmother washing a green saucepan, and crying. The boy knows that his mother only uses the green saucepan to cook for his grandmother.

When it is time to have dinner, Tolya's mother pours some soup for grandma from the green saucepan and puts her bowl on a little table near the door. That is where grandma eats.

Tolya feels very sorry for grandma, and says, 'Mum, I want some soup from the green saucepan.

His mother looks at Tolya in amazement and whispers angrily, 'Don't be smart!'

Tolya starts crying. 'No, mum, I'm not being smart. I just want to eat with grandma.'

He leaves the dining table, sits down at grandma's table, and begins to eat soup from her bowl.

The room falls deathly silent.

The father and mother put spoons on the dining table.

Grandma cries.