

# Seventh grade pupils confirm laws of physics with research

Oshmyany school constructs wind generators and generates electricity from oranges

By Lyudmila Minakova

Naturally, most modern schoolchildren are interested in computer games but boys from class 7B at Oshmyany School #3 are fond of physics — conducting all sorts of experiments. They even devote their free time to the hobby and, recently, constructed a mini wind generator (under the guidance of the head master, physics teacher Anna Chubrik); this brought them victory at the Regional *TechnoIntellect* Contest of Youth Sci-Tech Art.

“Of course, our model is far from modern wind facilities but it does generate electricity!” notes seventh grade pupil Zhenya Kratkevich, turning the turbine. Look, the bulb is lit! “We aren’t discovering America, as wind generators operate under the same principle everywhere: wind turns a wheel, the blades make a rotor move and electricity is then produced. However, we’ve confirmed again that electricity can be generated in this way.”

The children chose the topic with good reason. “Our locality is situated



Young physicists keen on school experiments

on a hill, where winds are common. From November to February, wind speed reaches up to 10-15 metres a second (enough for similar wind turbines),” states

Ms. Chubrik. In fact, the Oshmyany pupils have actually designed their own wind generator, utilising recycled resources. “Our country has many obsolete

helicopters whose blades are made from a material suitable for wind turbine blades; sadly, ‘reuse’ of materials is underdeveloped in Belarus. We’d like to in-

stall a similar wind turbine on the roof of our school, to supply electricity to the building,” Ms. Chubrik asserts.

It took the children

about three months to design and make their generator. “We initially studied how wind facilities operate, choosing blades and a metal alloy,” says Zhenya Kratkevich. “Much time was spent on designing the rotating blades.”

“We thought thicker blades would be more effective but, in fact, a 1mm wire lit the bulb unexpectedly,” adds Maxim Gradoboev. “I had no hope of this being true, but then the bulb lit!”

No doubt, the children are lucky to have a teacher like Ms. Chubrik, who loves to surprise her pupils with experiments. “I realise that the subject would arouse no interest if I just told the children about it; physics primarily envisages experimentation. For example, yesterday, after classes, we were generating electricity from apples and oranges,” she smiles.

The children are now planning a device to treat cold-related diseases, based on light polarisation. Using a tourmaline crystal and an ordinary lamp, they hope to generate energy to treat sore throats, running noses and ear ache.

## More long-livers registered

By Anastasia Yanusheva

**Around 20,000 aged over 90 live in Belarus, in addition to over 500 in their second century**

The Health Ministry’s Main Therapist, Vadim Sushinsky, asserts that rising life expectancy is a recent trend. In the early 20th century, this stood at just 45 years in Belarus and Russia; it now exceeds 70 years in Belarus (64.8 for men and 76.6 for women).

The Deputy Head Doctor of the Republican Centre for Hygiene, Epidemiology and Public Health, Lyudmila Naroichik (also chief of preventative medicine and healthy living at the Health Ministry), emphasises that those who eat significant amounts of fruit, vegetables and fish, while refraining from smoking or drinking excessive amounts of alcohol, and exercising regularly are 65 percent more likely to live to 90 (in comparison to the average). Those who take regular exercise are 37 percent more likely to live to 90, those who refrain from smok-



Keeping fit and healthy

ing are 35 percent more likely to reach nine decades and those who eat healthily raise their chances by 23 percent. Those who consume alcohol in moderation raise their likelihood of reaching 90 by 22 percent.

Of course, some people have a genetic disposition towards a long life but a low-calorie diet incorporating dairy products can help. “A desire to socialise and a love for life are vital factors; those who live long tend to be calm, kind, optimistic and moderate in all they do. This gives them a ‘psychological shield’ against ageing and death,” smiles Ms. Naroichik, adding that an active public life also helps.

## Number of foreign students continues to rise steadily

**According to Victor Yakzhik, Belarus’ Deputy Education Minister, who took part in the opening of the 10th Joy of Easter International Exhibition, at the Belarusian National Technical University, the 2011-2012 academic year will see the number of foreign students in Belarus rise by over 2,000. Over 12,000 students from 88 countries currently study in Belarus.**

The annual *Joy of Easter* exhibition at the BNTU is already a tradition, with the university honouring the traditions of hospitable Belarus. The holiday is celebrated by students from Georgia, Syria, Latin America and elsewhere.

As 2012 is the Year of Book in Belarus, the jubilee event is dedicated to books as a source of spiritual, moral and cultural enlightenment. This year’s event includes the ‘Road of Good Charity’ campaign — an auction which raises funds to provide assistance to students with oncological diseases. The event aims to enable these students to believe in themselves and feel the care of friends



Plenty of interest at Joy of Easter International Exhibition

and colleagues, while supporting families facing difficulties.

This year, the Easter exhibition displays works from church parishes, as well as Orthodox collections from Georgia, Syria and Latin America. Moreover, a personal exhibition by the Dean of the BNTU’s Architecture Department, A. Sardarov, is being held, entitled *Christian Churches of Armenia and Belarus*. Books and works by teachers and students from the Architecture Depart-

ment are on show, in addition to an exhibition of 18th-19th century icons and books from Minsk’s Theological Academy and a photo exhibition by John Kunstatar (of the USA), entitled *Light as a Measure of Faith*.

The event is being organised by the International Association of University Graduates, the Belarusian National Technical University and the Belarusian Exarchate — with support from the Education Ministry.