

PROJECT ACTIVITY DURING THE STUDY OF PHYSICS USING SYSTEM DYNAMICS

At the present stage of the process of teaching physics in primary school is an important place has not only the problem of the strength of students' knowledge acquisition, but also the ability to independently acquire meaningful knowledge for students, systematically improve them. Therefore, use is important project activities of students in the process of studying physics at school [1].

Is it possible to consume high school tap water? For this purpose, problem-based learning using system dynamics was used. Visual water transfer by the simulator and a model from Stella (Figure 1) helped us to perform laboratory tests.

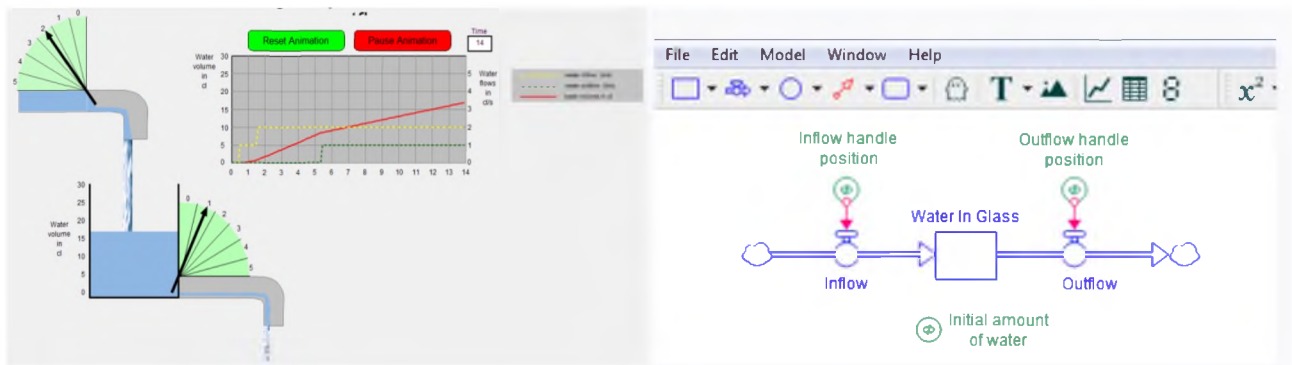


Figure 1. System dynamics model for water transfer

Comparing the physicochemical parameters of gymnasium water and bottled water "Dion", we found that tap water is suitable for consumption.

By knowing the distance and time that pets travel, you can calculate their speed. The simulation of the model in Stella makes it possible to compare these speeds (7th grade) and acceleration (9th grade) on the graphs.

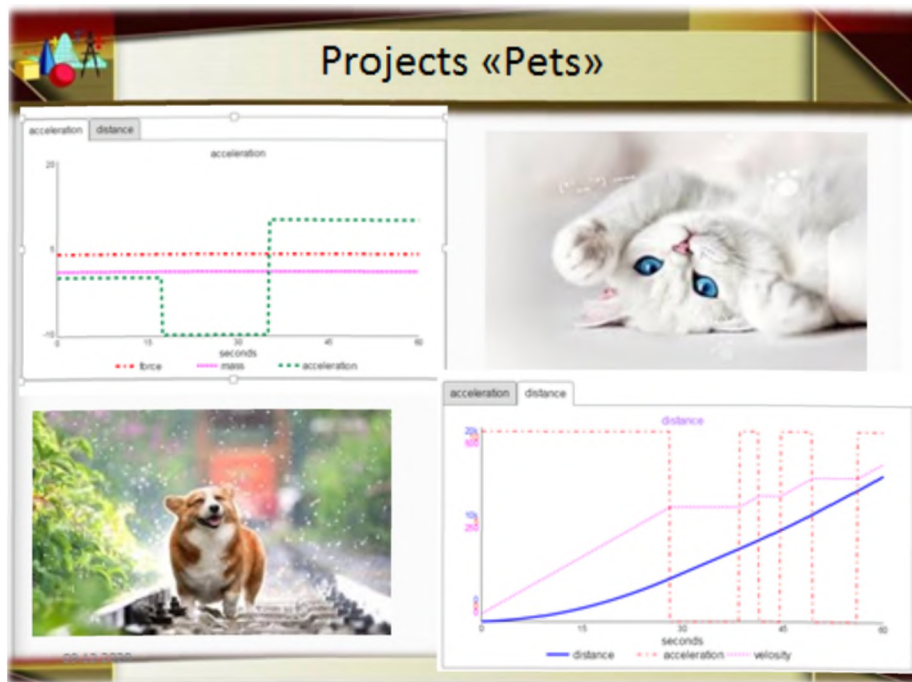


Figure 2. Dynamics of velocity, distance and acceleration

The Air Pollution Project with the Indian School was implemented using system dynamics. This project integrated different subjects. He helped solve a number of issues with air pollution in Delhi and Lviv.



Figure 3. Pollution problems

The use of system dynamics in project activities in the process of teaching physics increases the level of understanding of the laws physics, allows students to master the method of scientific knowledge, develops physical thinking, communicative competence. Involving school students in research and exploration activities contributes development of their cognitive interests.

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RELATIONSHIP BETWEEN PRICE AND WAGE IN UKRAINE: SYSTEM DYNAMIC EVALUATION

The subject of our research is to take a closer look at the relationship between wages and prices, in case of Ukraine. By view of Ricardo, prices are determined by wages. Broadly speaking, prices are determined by cost of production, while cost of production is determined by cost of labor.