

Chapter 11

School Week of High Technologies and Technical Entrepreneurship: Experience of the Educational Event

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ABSTRACT

For the modern school, the task of organizing the design and research activities of schoolchildren, connected with modern science and high technologies, is very actual. This is difficult to do without the interaction of the school with scientists and representatives of high-tech businesses. It is not easy to integrate such cooperation into the educational program of a secondary school. This chapter describes the experience of the School Week of High Technologies as an integrated model of the organization of the school's educational space. The chapter discusses the general logic of the preparation and conduct of such educational events as cycles of educational research, projects, conferences, problem lectures, excursions to high-tech production (including in the format of business games), meetings with leading specialists and enterprise management, and business games. Possible difficulties, educational results, social and pedagogical effects of realization of such forms of cooperation of the school, scientific organizations, and business partners are analyzed.

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BRIEF DISCUSSION ABOUT THE MEANING AND OBJECTIVES OF THE HIGH TECHNOLOGY WEEK AND TECHNOLOGY ENTREPRENEURSHIP

For the modern school, the task of organizing of school students' design and research activities, connected with modern science and high technologies, is very actual. It can be hardly implemented without school's interaction with scientists and representatives of high-tech business.

It is not easy to integrate such a cooperation in the educational program of a secondary school. The rigid structure of traditional mass school hardly opens to possible partners from other life spheres. For actualization of such substantial cooperation, those ways of working should be found that can expand the horizons of the class-and-lesson system. This chapter describes the experience of carrying the School Week of High Technologies and tech entrepreneurship (hereinafter referred to as Week) as an integrated model of the organization of the school's educational space. The Week allows organizing meetings and interaction of school students and their teachers with scientists and businesspeople, working in the high-tech areas.

In the chapter general logic of preparing and implementation of the Week as a educational event in whole is discussed, and separate programs and projects are presented that can become the component parts of the Week, such as: cycles of educational research, conferences, problem lectures; excursions to high-tech production (in a form of business games as well); meetings with leading specialists and enterprise management; business games that allow students in the model mode to get acquainted with the norms of research, production and technological, management activities of high-tech industries.

Possible difficulties, educational results, social and pedagogical effects of realization of such forms of cooperation between school, scientific organizations and business partners are described by the example of the Week of Nanotechnologies and tech entrepreneurship, led through the program "School league of Rusnano" (www.schoolnano.ru) which has been implemented in Russia since 2010.

"School league of Rusnano" is a network project which is designed to expand in the schools of Russian Federation the ideas which are focused on the development of the modern study, primarily science study. Uniting schools and teachers on one side and scientists and high-school lecturers, industry and business representatives on the other, League organizes their interaction to achieve League's overall objectives. More than 300 educational organizations from 60 regions of the country became the participants and partners of "School league of Rusnano" in 2010-2016. The project is implemented with the support of the Fund of the infrastructural and educational programs of Rosnanotech.

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