

High Way to High Tech: School, University, Career

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Context: Secondary Education

Disciplines: Science, ICT, Mathematics, Technology, Engineering



PROJECT ABSTRACT: To develop "High Tech Educational Centre" at school for:

- teaching students to use high technology for enhancing Mathematics, Science, Computer Science, Engineering courses and to use it in everyday life;
- involving administrators, teachers and students in activities that increase awareness and interest in high tech college degree programs and careers.

It will contain two parts of resources:

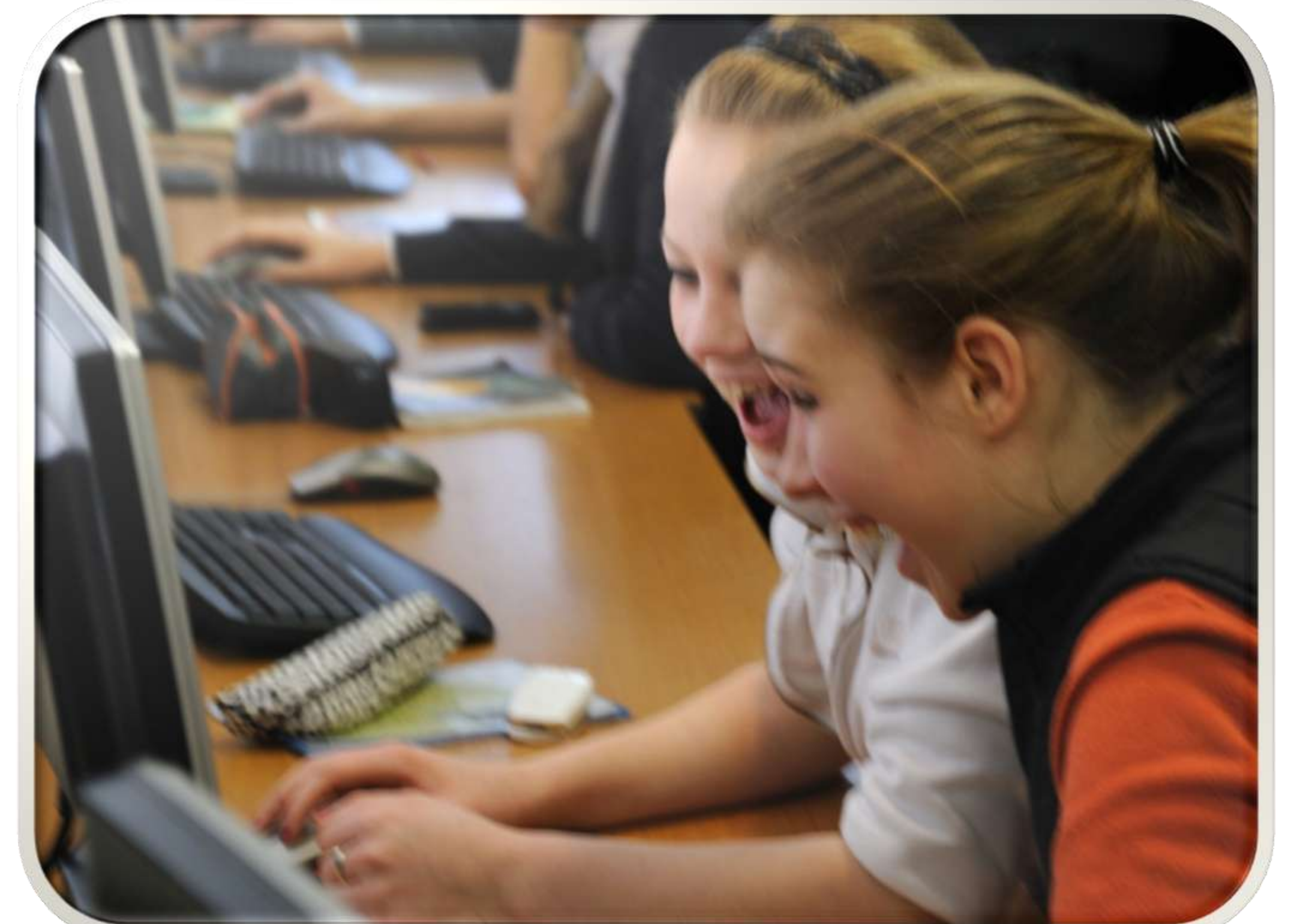
Technological resources: equipments that will be the part of school local computer network and will be used by students, teachers, administration in teaching/learning, self training, researches, projects in the sphere of ICT, Science, Mathematics, Design, Engineering, etc.

Educational resources: innovation curricula, training courses, instructions, practical works, virtual labs, multimedia textbooks, etc.

Such resources all together will provide our students "**High Way to High Tech**" from School through University to Career in High Technology.

Changes to Instruction from HP Grant

1. Students and their parents, teachers and administrators will get access to all school information via the Internet and school wireless computer network.
2. Multimedia and interactive objects, simulators, virtual labs make it possible to demonstrate to students subjects and processes which they cannot see real-life, or in live experiments.
3. New educational technologies (project-based learning, students' research teams) can help us to overcome the gap between Science and Life.



Measurement Methods Used

The matrix model in activity evaluation will be used. It starts with the project description and include column of activities with planned outcomes. To evaluate the results we will use questionnaires, feedback, interviews, school testing, verbal information from the students, teachers and administrators, event statistics.

Key Outcomes and Evidence

1. Setting up a community of innovative administrators and teachers based on a special computer network will develop or enhance their leadership skills and provide for sharing of innovative experience.
2. Redesigning of all learning environment by introducing multimedia and interactive teaching/learning tools, simulators, virtual labs, videoconferencing.
3. Overcoming the gap between Science and Life by exposing students to research work, fieldtrips, outdoors explorations.
4. Cooperation with University researchers and successful ICT businessmen will increase High Tech Career awareness.



Keywords: science and engineering education, innovation curricula, educational centre, learning environment