



Sparkling Science >

Science linking with School
School linking with Science

PROJECT OUTLOOK, 28th January 2009

Youth Research: Traffic and Security

LEADING INSTITUTION

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Institute of Mechanics and Mechatronics
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SCIENTIFIC CO-OPERATION PARTNERS

Driving School "Regenbogen",
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Stadt Wien MA 46 - Verkehrsorganisation

SCHOOLS INVOLVED

Higher Technical College and
Versuchsanstalt Mödling
Polgargymnasium Vienna 22



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Austrian Federal Ministry of
Science and Research

Youth Research Traffic and Security

Children and teenagers grow up with vehicles and in general they are soon fascinated by them, since they increase the personal mobility. With growing age first the bicycle and later motorized vehicles in general are highly important to young people. Therefore, it seems obvious to build on this elementary interest and curiosity in transportation means, and to familiarise young people with science and research.

The project is based on the idea to let pupils carry out data acquisition, measurements and data interpretation. Such parameters are e.g. the walking speed of pedestrians, driving speeds of powered and non-powered road users, braking deceleration of vehicles, etc. The measurements are concerned with physical quantities, which are descriptive and to which pupils have or can establish a relation. Data acquisition of such parameters in real traffic requires the use of modern measurement equipment on one hand, but must still be simple enough to be used, in order to let the young people work independently and on their own. Moreover, the entire project is subdivided in smaller project units, to allow for adjusting the level of demand to the level of skills of the pupils. All tasks can be worked on a level suitable for the knowledge and talents of secondary school pupils. Multidisciplinary work is also possible, since the general theme of this project concerns Mathematics, Physics, Psychology, engineering disciplines, and more.

From a scientific point of view the project is interesting and shows promise, since there is a demand for up-to-date data of traffic-related parameters of all kinds. Specifically data for teenagers are sought after, and therefore their participation is essential and well needed in this project. Also there is a chance to acquire more data in less time by taking advantage of the large number of pupils available in each of the cooperating schools. From a statistical point of view this is also very promising and an advantageous aspect of the project. All-in-all this project has scientific significance and combines the goal to familiarize pupils with science and to acquire new research results.



Statements

Pupil: „I think it is cool, that our class and school participates in Sparkling Science, since I am interested in project management and would like to manage projects by myself in the future“.

Pupil: „Provides a welcome change to common-or-garden lessons“.


Pupil: „The acquired knowledge can be used in everyday life, there is a relation to normal life.“

Teacher: „Projects offer a good opportunity for the pupils to get a different class experience and make for a welcome change in the daily teaching routine“.

Teacher: „The traffic safety project will be very useful, since it can be used by interested pupils for their special field project“.

Teacher: „Team work of the pupils, organisational skills and time management will be put to the test.“





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