

More information and teaching material
is available at

www.sciencemath.ph-gmuend.de



Education and Culture

Socrates

Comenius



Science Math

Mathematical literacy
and cross curricular competencies
through interdisciplinarity,
mathematising and
modelling science.



Target Groups

European mathematics and science teachers and
their students in secondary schools,
all levels.

student teachers, teacher trainees,
teacher educators

The Project

The ScienceMath project is an
interdisciplinary European co-operation
project for the promotion of mathematical
and scientific literacy. It is supported by the
European Commission within programme
Comenius 2.1.

The **global aim of the project** is to develop, evaluate and disseminate teaching-sequences resp. learning-modules for secondary school that lead to a comprehensive and multi-dimensional learning of mathematic contents and concepts.

The **educational and teaching approaches** are marked by mathematics and science being interdisciplinary. The idea behind that is the following: Scientific contents offer the opportunity for realistic teaching. Actual physical, chemical and biological correlations may initiate mathematic activities and lead to authentic experiences. Mathematic contents and methods are apprehensible in reasonable contexts; pupils' reality may be extended by mathematical understanding. Various realistic references lead to different models and may therefore contribute to the distinction of conceptual attributes and different models. The variety of scientific phenomena allows open terms of references and therefore self-dependent development of mathematics.

The teaching-modules of the project concern to the following, e.g.:

- Mathematics through Every-Day-Life Problems and Scientific Questions
- Modelling Processes and Integration of Mathematics and Sciences
- Learning mathematical concepts like function, variable etc. through experiments

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