

Integration of TSP into education system at University of Education Heidelberg

- Place: Faculty of natural sciences and social sciences
- prescribed for all students
- courses can be freely chosen, in accordance with modules 1 and 2 respectively

integrated mathematics and natural sciences studies (teacher education, pre-service)

Module 1: basics of integrated mathematics and natural sciences studies

Topic / content:	competencies
<p>-Specific methods of the various disciplines that constitute mathematics and natural sciences</p> <ul style="list-style-type: none">- methods to deal with complex problems in an interdisciplinary approach- Use of modern information technologies	<ul style="list-style-type: none">-ability to demonstrate scientific thinking and scientific approaches to problem solving for concrete issues-ability to describe and analyse basic phenomena from everyday life, using fundamental methods of the disciplines involved

integrated mathematics and natural sciences studies (teacher education, pre-service)

Module 2 * : advanced teaching and learning of integrated mathematics and natural sciences studies

Topic / content:	competencies
-realization of an exemplary project in context with reality - didactics of interdisciplinary learning / didactics of project work	-ability to apply different scientific perspectives and methods -ability to plan and execute a project

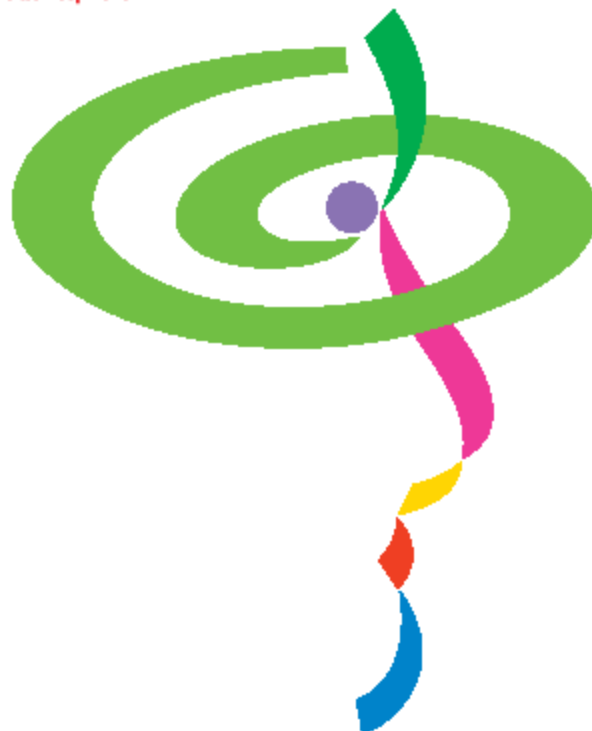
*** Cooperation of at least two different disciplines is required**

Curricular reforms in Germany:

a change of focus to standards in
science education

The Development of National Educational Standards

An Expertise



School programmes are the primary medium in which strengths and problem areas are identified, developmental goals are formulated and measures are planned.

All too often, however, school programmes are dominated by statements about the school's culture as a whole and cross-curricular activities and projects.

Subject-specific teaching and learning processes and the establishment of competencies within learning areas often play a rather minor role – considering the vital importance of these issues for the success of the schools and learning – in these initiatives for internal school development.

Klieme, E., et. al (2004). *The Development of National Educational Standards*. Berlin: Bundesministerium für Bildung und Forschung (BMBF). Publications and website division.

The teaching staff of each school will need to discuss and agree on how the standards can be met and to plan transitions and connections between grades, thereby helping to establish and maintain productive transitions between school forms (such as primary and lower secondary schools).

Klieme, E., et. al (2004). *The Development of National Educational Standards*. Berlin: Bundesministerium für Bildung und Forschung (BMBF). Publications and website devision.