

## Science in the German School System

### Primary School (year 1 – 4)

Science curricula are being implemented or have been implemented recently. Primary teachers need support and material for teaching science.

### Lower secondary school (year 5 – 10)

Common basic education:

**biology,**  
**physics,**  
**chemistry**



amount of time

- + integrated science and technology education in years 5 and 6<sup>1</sup>
- + additional options available in years 9 and 10<sup>1</sup>

### Upper secondary school (Year 11 – 12 or 13<sup>1</sup>)

(not professional education)

At least one of the subjects

**biology**  
**physics**  
**chemistry**

is to be chosen by the pupil, either as 3 hours/week elementary course or as 5 hours/week enriched level course (higher credit for qualification)

1) depends on the Bundesland

Deutscher Verein zur Förderung des mathematischen und naturwissenschaftlichen Unterrichts e.V.



Association of teachers of science (i.e. biology, physics, chemistry) and mathematics, including special subjects like astronomy

### Works for

- adequate portion (30%) of time for maths and sciences in general education
- ecological education, based on solid science knowledge
- adequate education in informatics
- improved teacher's training – scientifically based and fitting to the professional practice
- good equipment of schools with teachers and material
- promotion of gifted and interested pupils in science and mathematics
- our Journal "MNU" (8 issues/year) is interdisciplinary, combining didactic articles, classroom practice and reviews with the news of the STA itself

### Strengths

- interdisciplinarity
- regional sections correspond to the federal structure
- MNU as STA provides platforms for national discussions and developments in the different working fields
- is appreciated as a competent advisor by the education boards
- is often involved early
- organization of national and regional continued teacher's formation

### Weaknesses

- 100% dependence on voluntary work
- lack of young members, corresponding to the lack of young teachers
- need of intensive communication between the regional boards and national board of the STA

## Who influences the German education System?

### 16 Federal States - 16 Education Boards

**KMK** Permanent Conference of the 16 Education Ministers comes to common terms by negotiation (compromise)

**BMBF** National Board of Education and Research has no ruling competence for the federal states