

Masaryk Secondary School Activities Aimed to Support of Teaching Chemistry at Primary Schools

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The POSITION of MSSCH IN the EDUCATION SYSTEM

Simplified chart of Education system

Education		A typical age	Length (years)	
Pre-school education Attendance is not compulsory.		3 - 6	3	
Primary schools Attendance is compulsory.	1st stage	6 - 10	5	9
	2nd stage	11- 15	4	
Secondary schools Attendance is not compulsory.		15 - 19	4	
Universities Attendance is not compulsory.		> 19	5	

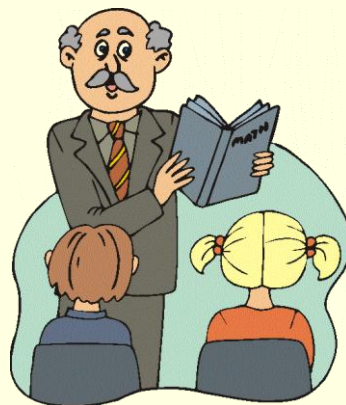
Post-compulsory education

Secondary education	Levels of education	Length (years)	ISCED level	Theoretical age
Completed with „maturitní zkouška” examination (A-level exam)	General	4	3A	15 - 19
	Technical			
	Art			
Education leading to apprenticeship certificate	Vocational education	2/3	3C	15-17/18

Pupils can choose their careers at the age of about 14 years.

OBSTRUCTIONS of TEACHING

- Chemistry in the primary school curriculum (teachers qualification)
- Strict regulations on using chemicals at schools (REACH, GHS, national regulation)
- Necessity to have a specific equipment for practical training



CHEMISTRY IN the PRIMARY SCHOOL CURRICULUM

■ Framework Educational Programmes

Under these programmes, schools had to prepare their own educational programmes.

■ School Educational Programme (SEP)

Educational area:

Human and nature (Second stage)

Physics	Minimally: 13 lesson/a week (+ disposal lessons)
Chemistry	
Biology	
Geography	

Human and nature in SEP

A number of lessons per week (example)

Year	6.	7.	8.	9.	Total
Subject					
Physics	2	2	2	2	8
Chemistry	-	-	2	2	4
Biology	2	2	2	1	7
Geography	2	1	1	1	1
				Total:	24

CHEMISTRY

Typical primary school

	1 class	2 classes
Year 8	2	4
Year 9	2	4
Total:	4	8

Full time teacher at primary school:

22 lessons per week

Number of lessons at school:

4 – 8 lessons per week

Teaching qualification:

Chemistry + ?

MASARYK SECONDARY SCHOOL OF CHEMISTRY (MSSCH)

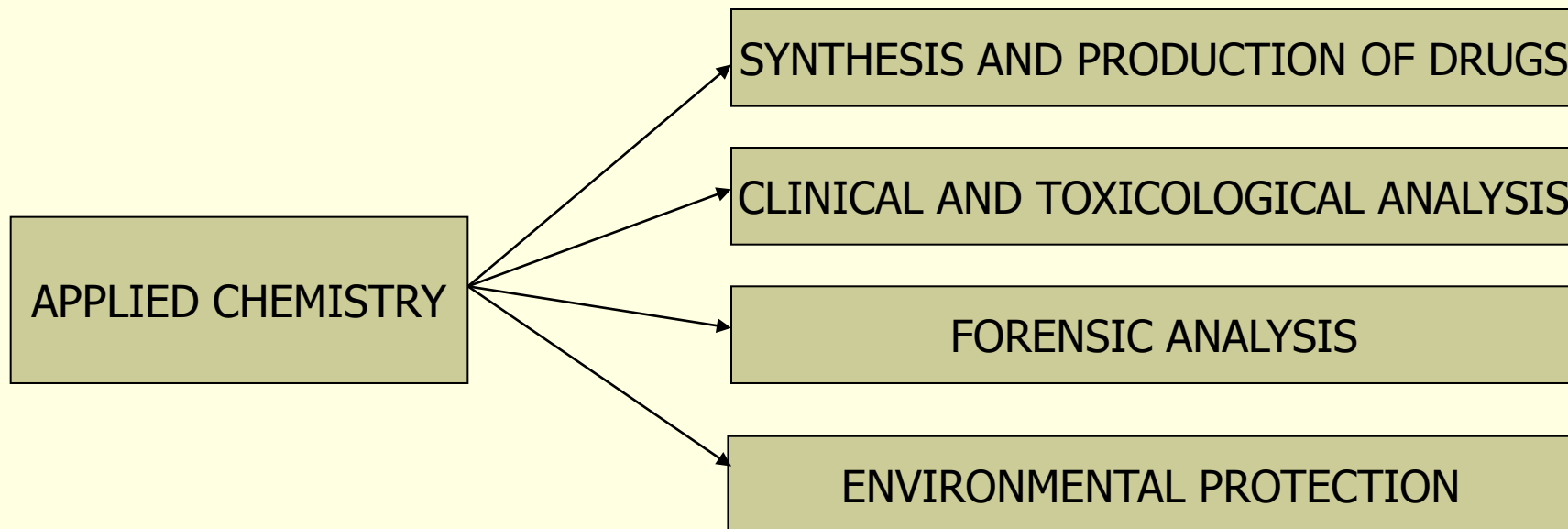
- Upper secondary
- Run by the city council
- Study is free of charge
- School is financed from the budget
- 320 students
- 52 staff
- 9 chemistry teachers



Prague 1, Křemencova 12

APPLIED CHEMISTRY

The first grade is common for all students, then they are divided into classes with different specializations:



MSSCH activities for primary schools

1. For teachers and their training and education Day-long workshops

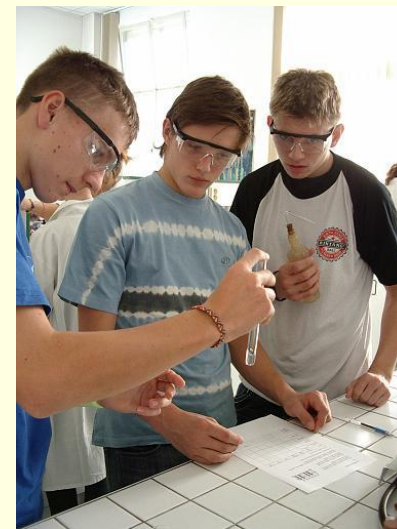
- **lectures** (theoretical part)
focused on pupils' motivation for chemistry, difficulties in chemistry teaching, law regulation for chemistry teaching and so on
- **laboratory part**
interesting and simple chemical experiments which can be used in education and which do not need special classroom or laboratory



MSSCH activities for primary schools

2. For pupils (mainly for the 8th and 9th years)

- Chemical competition
- “The Project days”
- “Chemohrátky” – neighbourly chemistry
- The Open Days



Chemical competition

Theoretical part

- is held at a primary school
- test assessed by a primary school teacher
- three or four best pupils create a team

Laboratory part

- is organized in the MSSCH laboratory



“The Project Days”

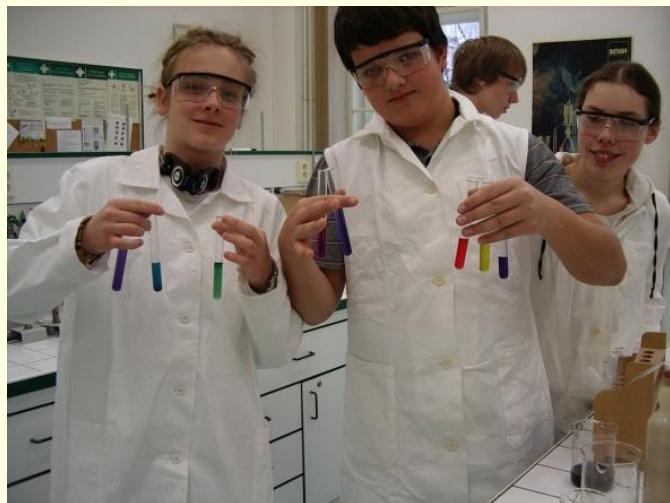
- focused on chemistry, biology and ecology
- content connected with the primary school curriculum
- practical training in a laboratory
(filtration, vaporization, weighing, dissolving, etc.)



“Chemohrátky”

– neighbourly chemistry

A primary school teacher can use our laboratory for chemical experiments connected with a primary school curriculum.

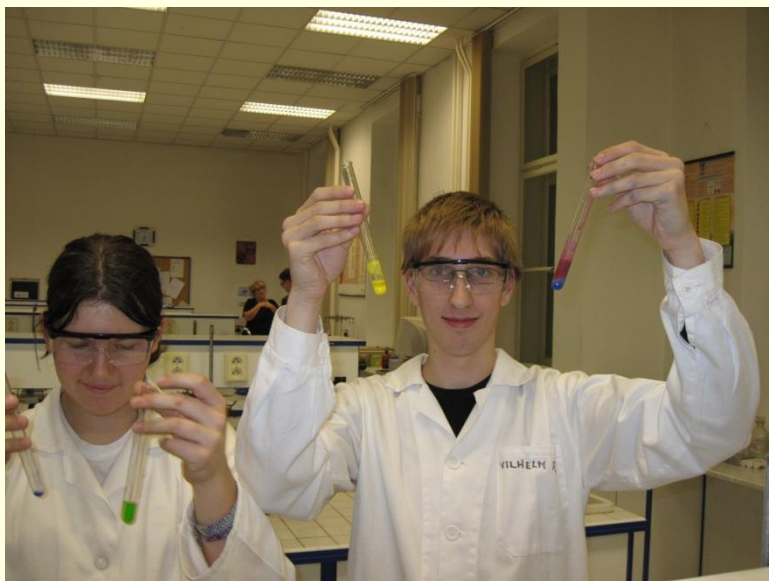


- Distillation
- Density measurement
- Filtration
- Coagulation
- Flame tests
- Chromatography

The Open Days

We invite pupils and their parents to our school.

- study branches presentation
- exhibitions of our fellow worker companies
- illustration of a career in chemistry



“Chemical Fun Fair”

We regularly participate in „Fun Fairs“ with our „Alchemy show“



THANK YOU FOR YOUR ATTENTION



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