

# **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	
<b>Secondary schools</b> Attendance is not compulsory.		15 - 19	4	
Universities Attendance is not compulsory.		> 19	5	

# Post-compulsory education

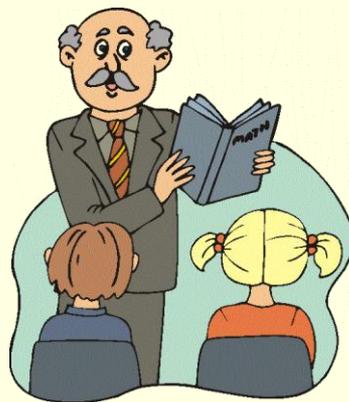
Secondary education	Levels of education	Length (years)	ISCED level	Theoretical age
Completed with „maturitní zkouška“ examination (A-level exam)	General	4	3A	15 - 19
	Technical			
	Art			
Education leading to apprenticeship certificate	Vocational education	2/3	3C	15-17/18

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

# OBSTRUCTIONS of TEACHING

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- 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

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## ■ 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
<b>Chemistry</b>	-	-	<b>2</b>	<b>2</b>	<b>4</b>
Biology	2	2	2	1	7
Geography	2	1	1	1	1
				Total:	24

# CHEMISTRY

## Typical primary school

	<b>1 class</b>	<b>2 classes</b>
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)

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- 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

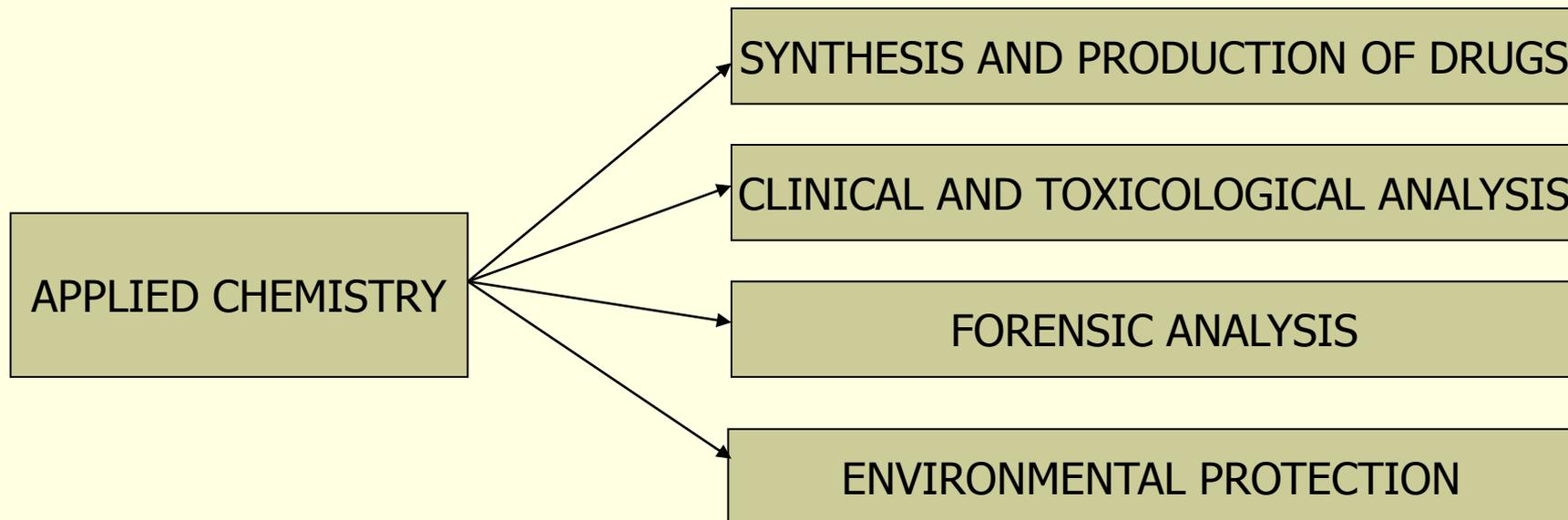


Prague 1, Křemencova 12

# APPLIED CHEMISTRY

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



# MSSCH activities for primary schools

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

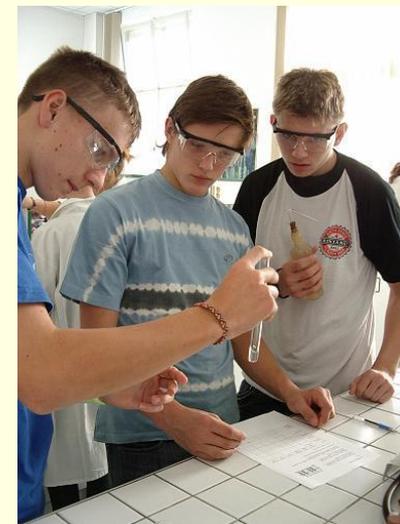
- **lectures** (theoretical part)  
focused on pupils' motivation for chemistry, difficulties in chemistry teaching, law regulation for chemistry teaching and so on
- **laboratory part**  
interesting and simple chemical experiments which can be used in education and which do not need special classroom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



# MSSCH activities for primary schools

## 2. For pupils (mainly for the 8<sup>th</sup> and 9<sup>th</sup> years)

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



# Chemical competition

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## 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”

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

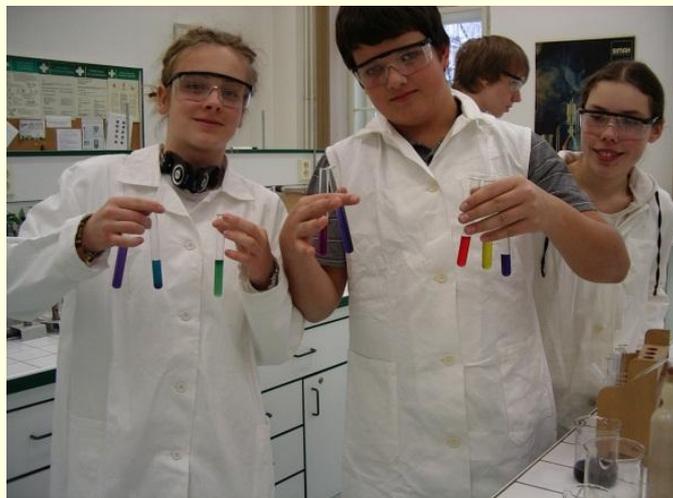


# “Chemohrátky”

## – neighbourly chemistry

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



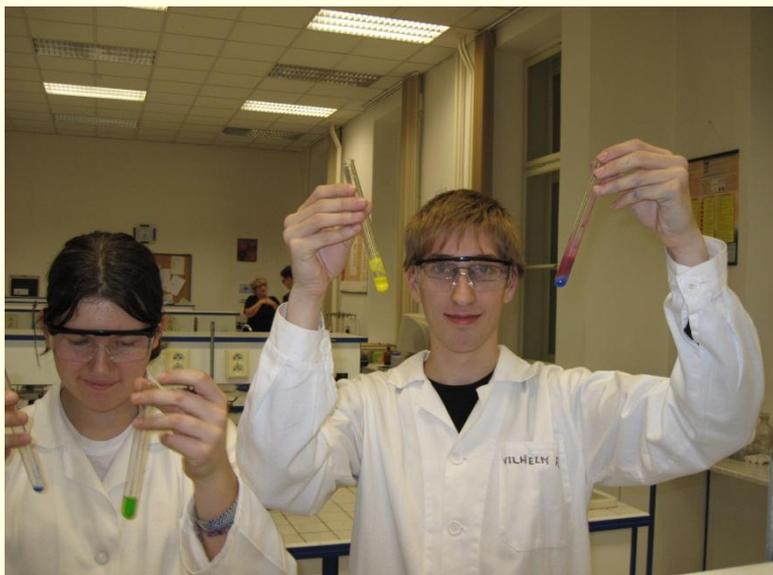
- Distillation
- Density measurement
- Filtration
- Coagulation
- Flame tests
- Chromatography

# The Open Days

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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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