### **ScienceMath** – The Teacher's Professional Development Ljubljana 23th – 28<sup>th</sup> August 2009

## **Programme**

#### **Sunday 23th August**

Arrival of the Participants for Teacher's Professional Development

All the sessions/meetings will be held in the room 4.c at the second floor of the *Diocesan Classical Gymnasium* at *St. Stanislav`s Institution*, Zavod sv. Stanislava, Štula 23, 1210 Ljubljana, Slovenia - EU

### Monday 24<sup>th</sup> August

Time	Approx.	Session	Theme
8-12	15 min	Presentation	Welcome, Introduction
	45 min	Presentation	ScienceMath project presentation: Aims and Results
	30 min	Discussion	Participants introduce themselves
	15 min		Coffee
	120 min	Presentation	Calculus; from physics
12-14	Lunch		
14-17	180 min	Workshop	towards mathematics
17-	Visit to the Ljubljana downtown		

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# Tuesday 25<sup>th</sup> August

Time	Approx.	Session	Theme	
8-12	30 min	Presentation	Functions and Sounds	
	60 min	Workshop	Functional relations Part 1: Introduction and trying the material - a	
0-12	15 min		Coffee	
	120 min		Functional relations Part 1: Introduction and trying the material - b	
12-14		Lunch		
14-17	60 min	Workshop	Nutrition Circle, Proportions: Similarity and Allometry	
	15 min		Coffee	
	90 min	Workshop	Creating interdisciplinary lessons between math and science; Part 1	
17-	Free			

# Wednesday 26<sup>th</sup> August

Time	Approx.	Session	Theme	
8-12	60 min	Presentation	Experiments and concept of variable	
	90 min	Workshop	Functional relations Part 2: Creating own worksheets	
	15 min	Coffee		
	60 min	Workshop	Creating interdisciplinary lessons between math and science; Part 2	
12-14		Lunch		
14-20 (or 13 - 20)	360 min	Excursion (Workshop)	Measurements in real world – field work incorporated into science teaching (tourist) excursion	

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# Thursday 27<sup>th</sup> August

Time	Approx.	Session	Theme
0.12	30 min	Presentation	Concept of parallelism and concept of gravity
	45 min	Presentation	Fermat meets Pythagoras and Fermat's Principle
	30 min	Presentation	Parabola and Technology
8-12	15 min		Coffee
	30 min	Presentation	Students' discussions about mathematics and society: Modelling population growth.
	60 min	Workshop	Functional relations Part 3: Discussing the module
12-14	Lunch		
	90 min	Workshop	Arithmetic mean and car differential
14-17	15 min	Coffee	
	60 min	Presentation	Logarithms
17-	Typical Slovenian dinner		

Friday 28<sup>th</sup> August

Time	Approx.	Session	Theme
8-12	30 min	Presentation	Modelling motion: the case of shooting in water
	60 min	Presentation	From coupled pendulum toward Fourier analyses
	15 min		Coffee
	90 min	Discussion	Final discussion
	30 min		Conclusion and farewell