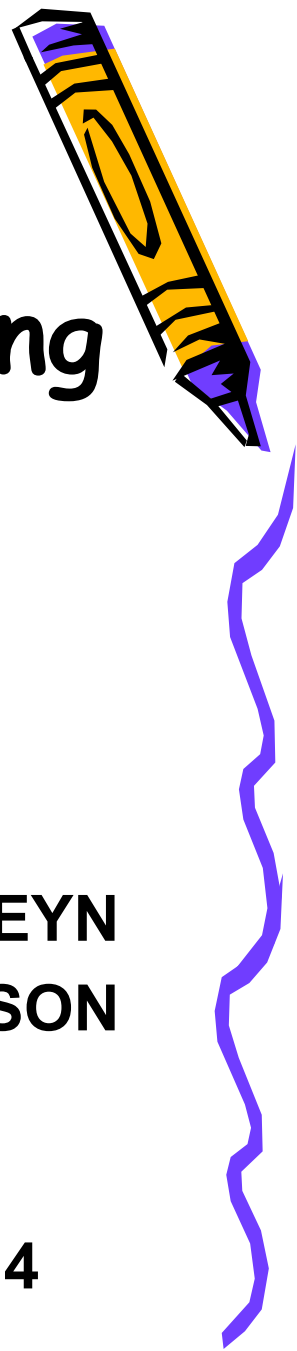


The World of Mathematics Museum as a Tool for Inspiring New Perspective Towards Mathematics in Russian Education

Mikhail EPSHTEYN
Sergei MIKHELSON

Matrix conference, Dresden, 20/09/2014



BACKGROUND:



- graduated from the mathematical department of the Russian State Pedagogical University (St. Petersburg)
- founded a non-profit educational center Uchastie (Concern) in 1991
- launched a number of projects in alternative education



Mathematics education in Russia:



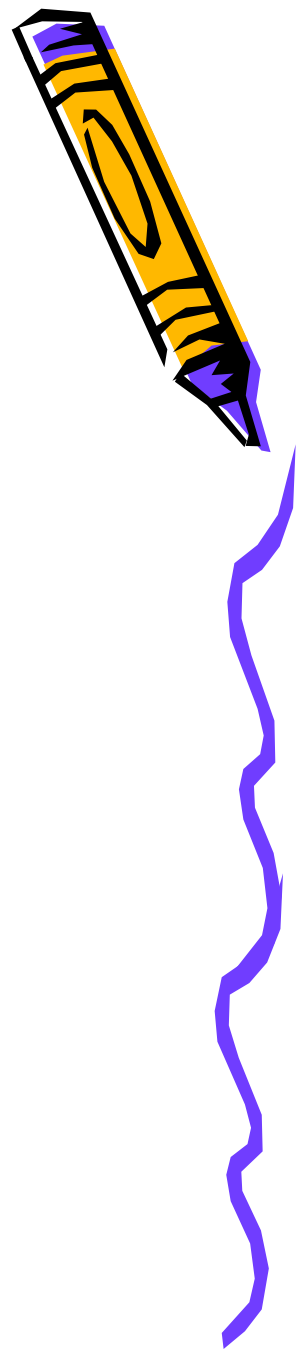
- Still strong in working with gifted students.
- The average level of regular kids deteriorates:
 - fear of math,
 - no connection to real life,
 - lack of problem solving skills,
 - no interactive learning,
 - lack of edutainment.



WINTER 2013 -
visit to MoMATH, New York



An idea to create
a museum of mathematics
in St. Petersburg



Our initial partners:



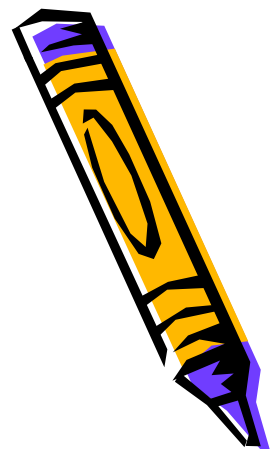
- KANGAROO - Mathematics For All



- School League (200 schools in 30 regions)



- Poligraphmash (rent discount)



образовательное пространство

МИРЫ УВЛЕЧЕНИЙ

WORLDS OF PASSIONS

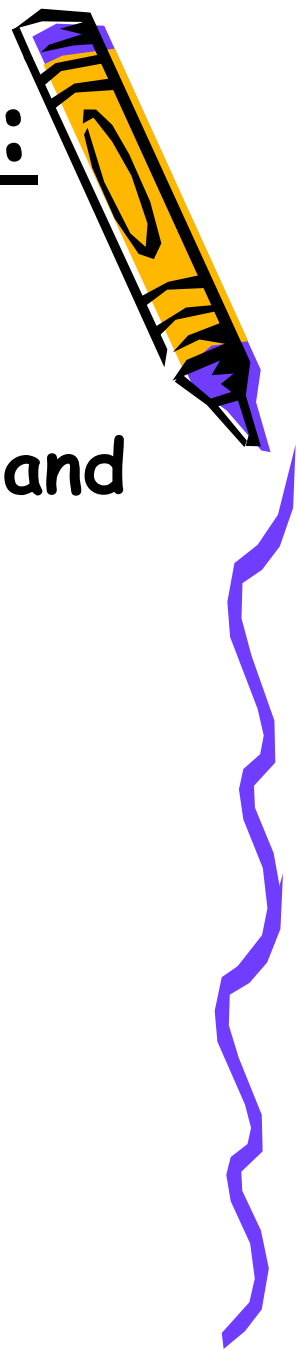


Several projects (worlds):

- World of mathematics itself
- World of books (library with books on popular math)
- World of techno (technopark) - *future plans*



The World of Mathematics is:



1. Objects to interact with:

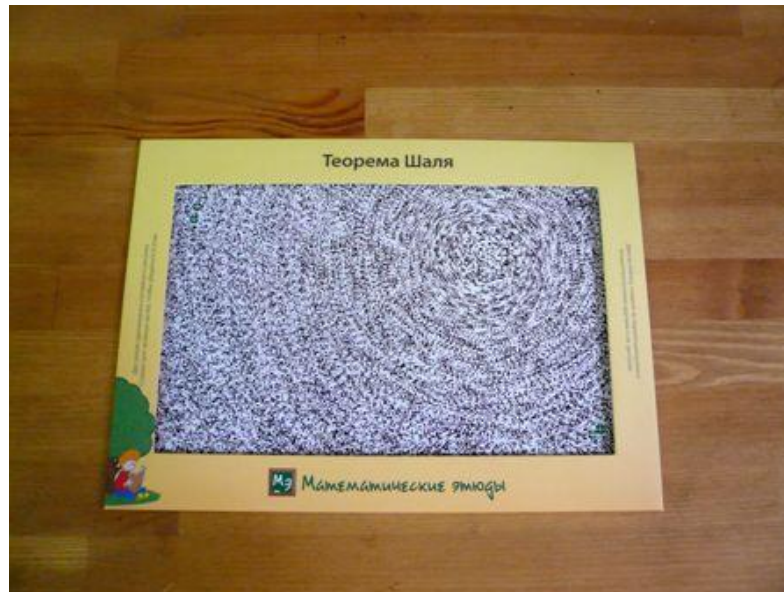
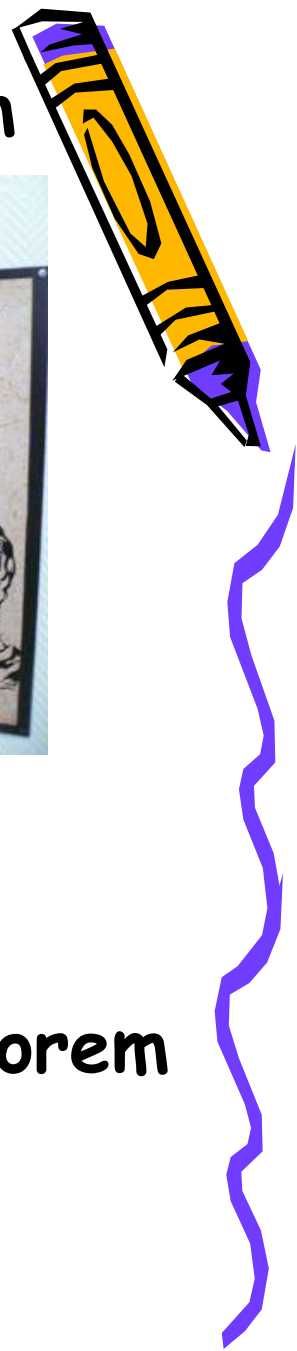
- demonstrations of mathematical facts and patterns;
- tools, devices, instruments;
- mathematical games;
- books, pictures;
- educational software;
- movies and cartoons, related to math.



Euler's path



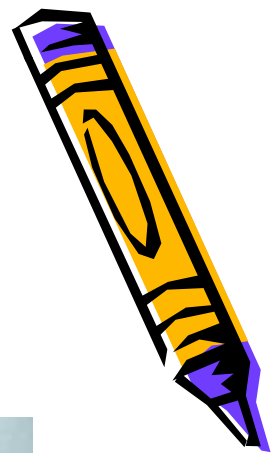
Pythagoras Theorem



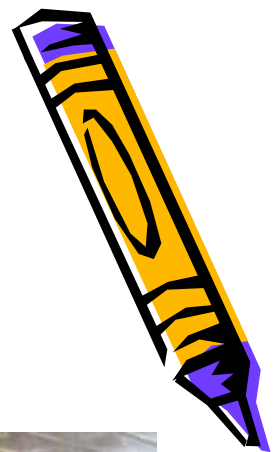
Shale Theorem



Geodesic and surveying measuring instruments



A-Mazing Math





Tower of Hanoi



Jenga



Geometric
games

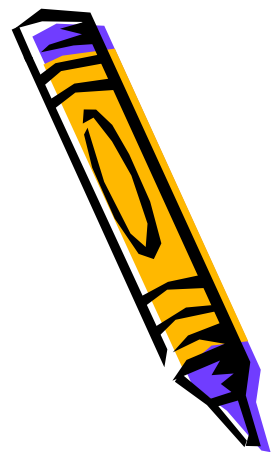




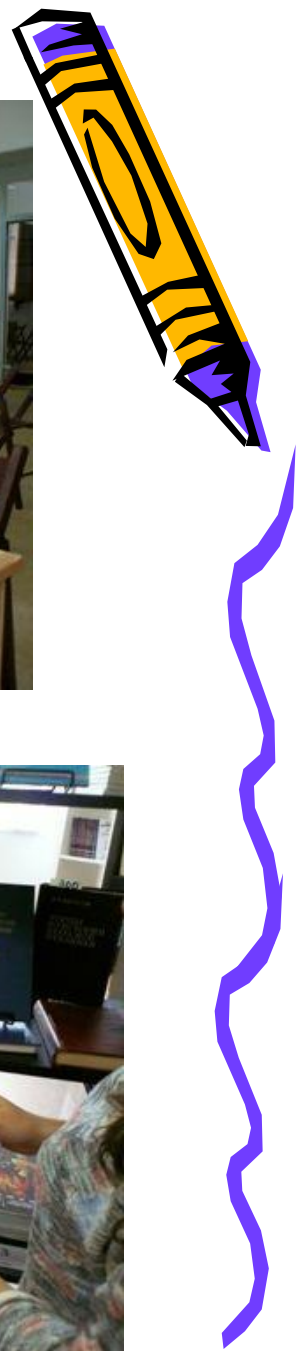
Logic
games



Conundrums



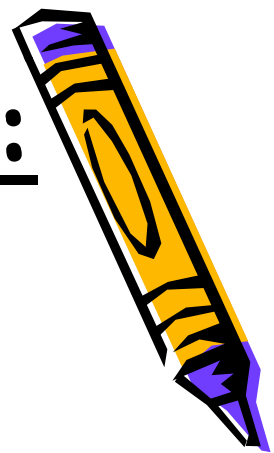
Math Illusions



Books on popular math



The World of Mathematics is:



1. Objects to interact with.
2. Educational programs around the objects or based on school curricula. *



Sample plans (in cooperation with school teachers and students of pedagogical universities):



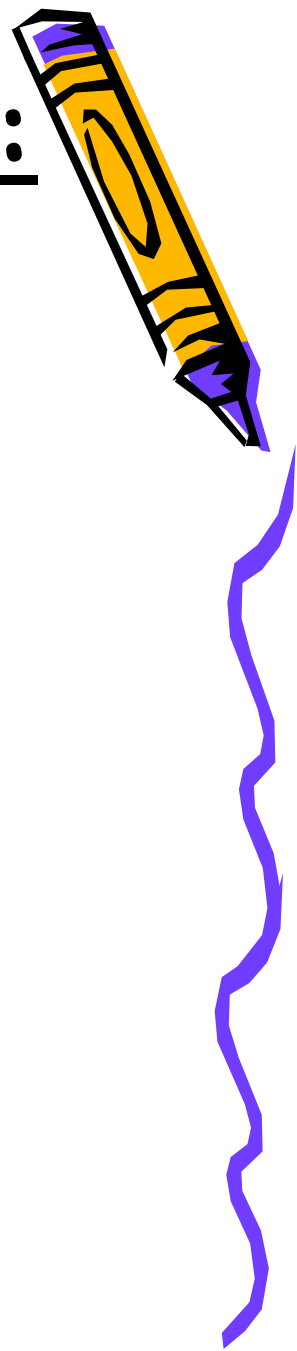
1. To develop a program around the measurement instruments.
2. To find objects for studying geometric optics.



3. A program in personal finance (trial run occurred in 12/2013).



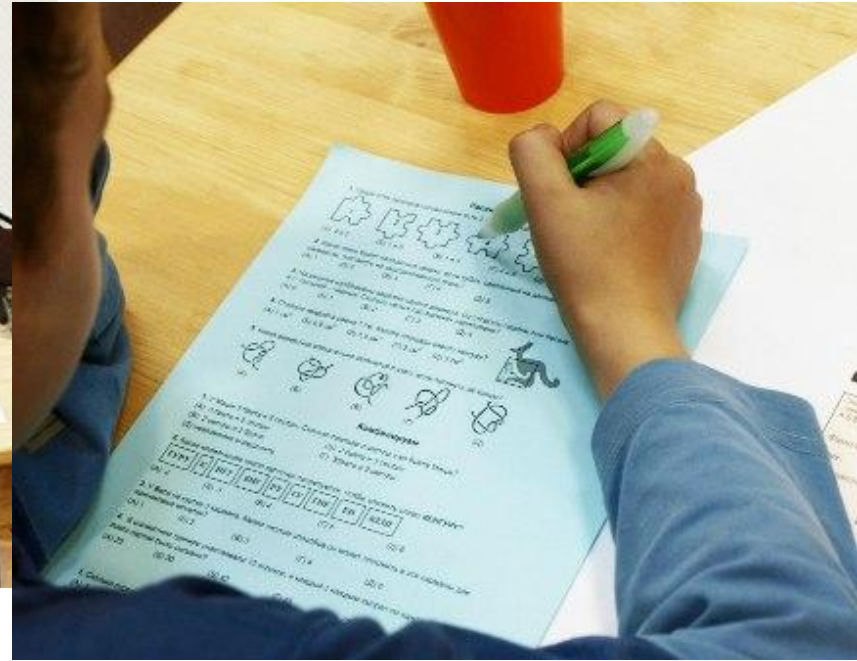
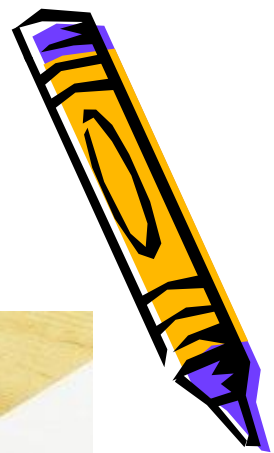
The World of Mathematics is:



1. Objects to interact with.
2. Educational programs around the objects or based on school curricula. *
3. Seminars for students and teachers. *



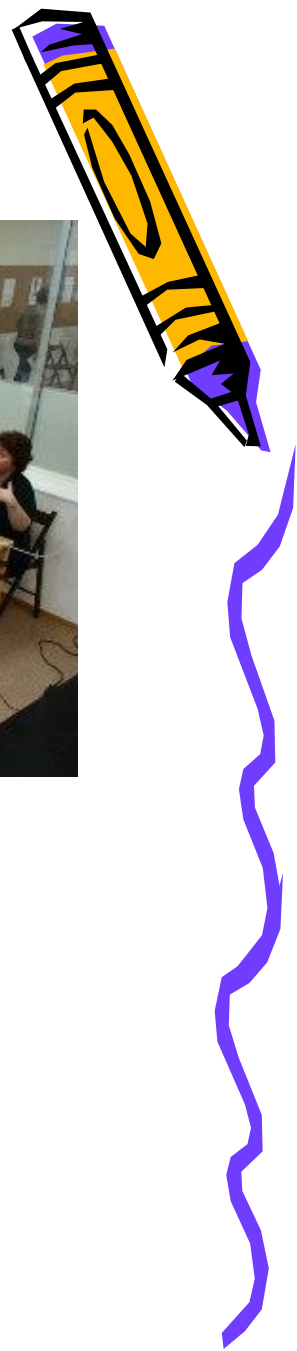
Kangaroo meetings for students



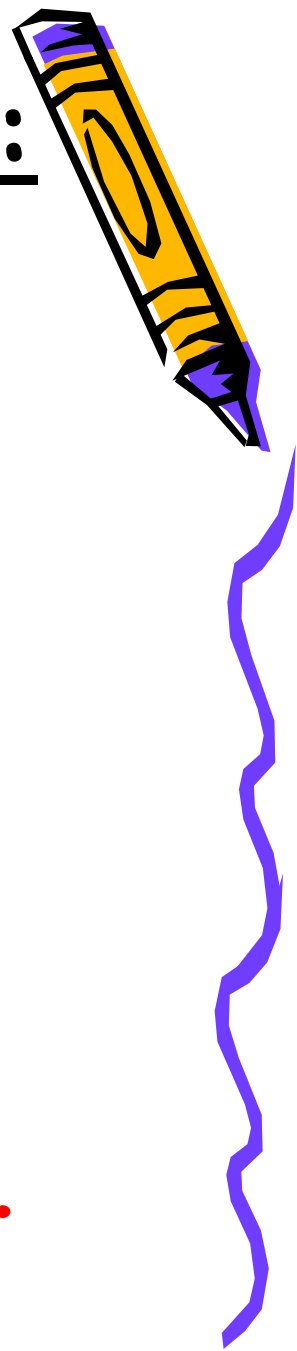
The Other Geometries seminar



Teaching Math With Technology seminar



The World of Mathematics is:



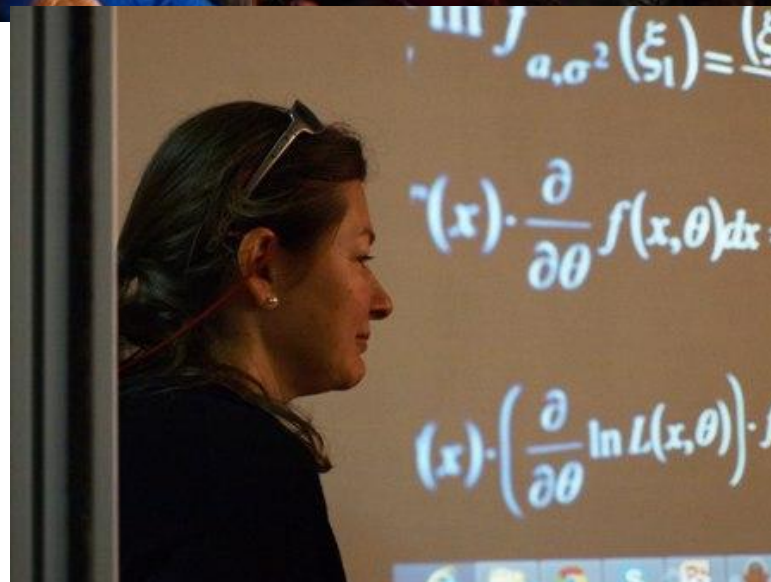
1. Objects to interact with.
2. Educational programs around the objects or based on school curricula. *
3. Seminars for students and teachers. *
4. Math related events.



Pi Day (first time in Russia)



The Colors of Math screening



Martin Gardner Day (planned for October 21, 2014)

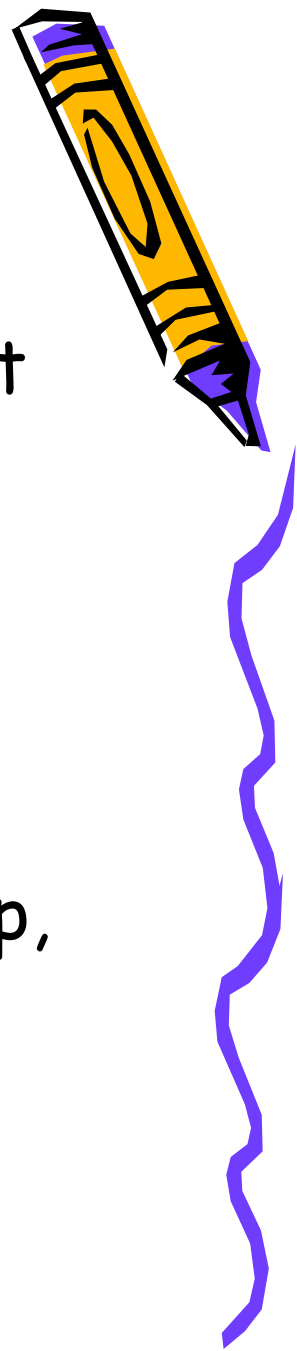


**Martin Gardner
100 years**

**(21.10.1914 -
22.05.2010)**



Challenges:



- Edutainment: how to turn entertainment into education and education into entertainment?
- How to attract state funding into edutainment?
- How to convince business to invest into education and to collaborate with it?
- How to establish meaningful partnership, including international, between 'edutainers'?



We want The World of Mathematics, besides being a place to visit for everyone, to become a strong interactive resource center for both students and teachers.

Ideally, it should generate a series of such centers in different cities.



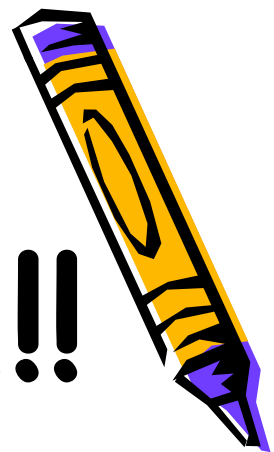
Looking for:



- financial support;
- people, capable of creating and carrying out various programs in the logic of our museum;
- more objects, books, other types of resources.



Thank you for your attention!!!



Sergei MIKHELSON,
LREI school,
New York, USA
smikhelson@lrei.org



Mikhail EPSHTEYN ,
Uchastie Educational Center,
St. Petersburg, Russia
alteredu@mail.ru



The World of Mathematics
interactive museum
(St. Petersburg, Russia)

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