

Science on Stage – Evropska mreža nastavnika nauke

Science on Stage Srbija

Natalija Budinski,

profesor matematike u
Osnovnoj i srednjoj školi sa domom
učenika
“Petro Kuzmjak” u Ruskom Krsturu



Science on Stage



Institut za moderno obrazovanje

Institute for Contemporary Education

STEM+Art=STEAM



Matematika i poezija



math + π oetry

Matematika i poezija

Koncept matematičke poezije

Primeri matematičke poezije

Mogućnosti za nastavu

Forma i metafora



Fib-poems (Fib-poezija)

*Kiss
me
again
tongue and lips
like Fibonacci's
sequence, each movement a spiral,
enfold, unfold, a working through and against, again.*

1,1,2,3,5,8,13,21,34,55,89,144,233,377...

$1+1=2$	$13+21=34$
$1+2=3$	$21+34=55$
$2+3=5$	$34+55=89$
$3+5=8$	$55+89=144$
$5+8=13$	$89+144=233$
$8+13=21$	$144+233=377$

“Fibonacci Poems” by Athena Kildegaard



Vizuelni oblik (Shape form)

**Life is a
Continuous Circle.
With no opening and
No ending like the brighter
Days and the darker nights
Repeating itself, it is one
Of the wonders made
By The Nature's
Creation**

**I have four ends
With four straight
Lines joining me
All in equal sizes
And in Length to
Form - A Square**

**I'm
Titled
The shape of
Life with Born One
Life one and Death one
To form a special shape named
As an human triangle with three ends**

Labudova senka

Dusk
Above the
water hang the
land
trees
hills
On
gray
them
What
When
Where
In us
No up to us at the very edges
of where we take shape in the dark air
this object bears its image awakening
ripples of recognition that will
break darkness up into light
A pale signal will appear
Soon before the shadow fades
Here in this pool of opened eye
No up to us at the very edges
even after this bird this hour both drift by atop the perfect sad instant now
already passing out of sight
toward yet-unwinked reflection
this image bears its object darkening
into memoral shades Scattered bits of
light No shadow On something across
water Breaking up No living gathered
soon Yet by then a song will have
gone Far out of mind into what
west
pale
break
of a
place
part
hidden dark as
if a man
was

Kako spojiti matematiku i poeziju?

Da li matematika i poezija imaju nešto zajedničko, na prvi pogled ne.

Matematika se oslanja na racionalno, a poezija ne emocionalno u nama.

Zajedničko im je lepota- za one koji ih razumeju.

π

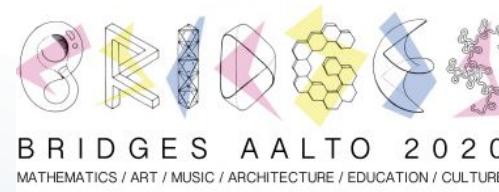
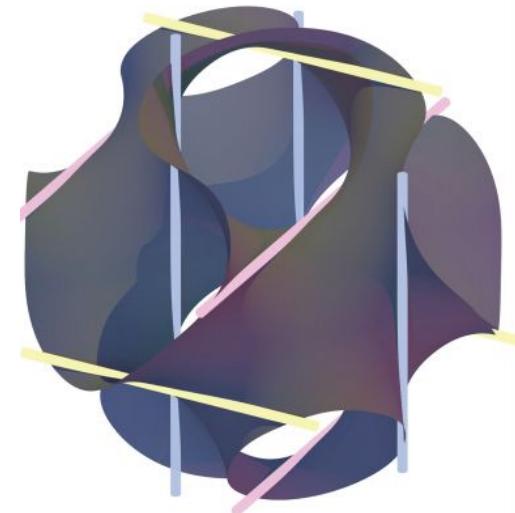
Vislava Šimborska,
dabitnica Nobelove
nagrade za
književnost, 1996.

3.14159265358979323846264338327950288419716939937
51058209749445923078164062862089986280348253421
1706798214808651328901175105611156505822317253
594081284811174665356763281834590399115659644622948
954930381964468109766593461284756482337867
8316527120190945648669234348610454326648213
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96282926409171536478925960011330530548820466
5213841469519415609433270367595919530921861
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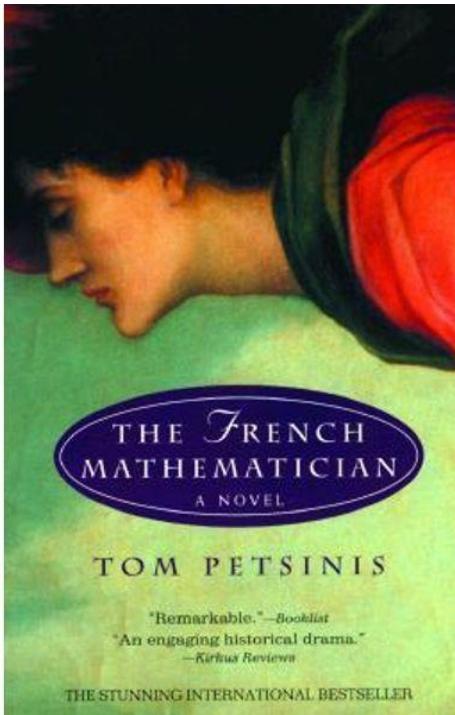
Matematika i poezija u učionici



Bridges-math&art
Centar za promociju nauke



Bridges



ODE TO NUMBERS



Poems by Sarah Glaz

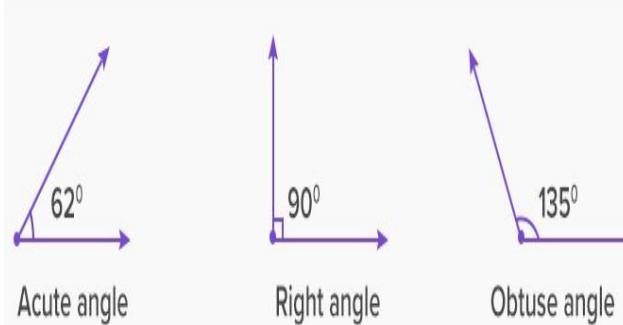
Formalne i neformalne aktivnosti



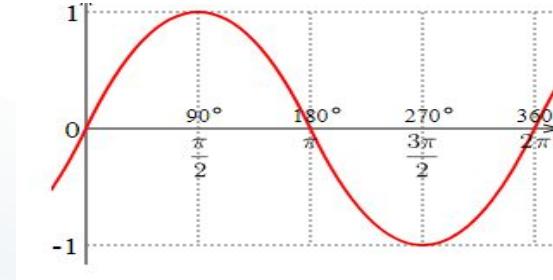


Ideje učenika i pisanje poezije

Pojam pravog ugla kao metafora dobrih odluka u životu.



Grafik sinusne funkcije kao metafora uspona i padova u životu.



Radionica za nastavnike i učenike naše škole

Objavljivanje literarnog dodatka u lokalnim novinama posvećenog matematici i poeziji

Snimanje video spota od strane učenika

- Matematičke ideje u drugačijem svetlu
- Obogaćivanje matematičkog volabulara
- Motivacija za učenje matematike

- C. Dorf. "*Collaboration in Creating the Mathematical Poem*
- S. Glaz and S. Liang, "*Modeling with Poetry in an Introductory College Algebra Course and Beyond*",
- B. Sriraman. "*Mathematics and Literature (the Sequel): Imagination as a Pathway to Advanced Mathematical Ideas and Philosophy.*"

Umesto zaključka



“U njoj je lepota hladna i stroga, poput kakvog kipa, filigranski čista i kadra za ozbiljnu perfekciju... duh egzaltacije i osećaja da se biva nečim više od čoveka”

Bertrand Rasel

Hvala na pažnji!

Literatura:

- C. Dorf. "Collaboration in Creating the Mathematical Poem.", *Bridges 2017 conference Proceedings*, pp.531-532.
- S. Glaz and S. Liang, "Modeling with Poetry in an Introductory College Algebra Course and Beyond", *Journal of Mathematics and the Arts*, vol. 3, 2009, pp. 123–133.
- B. Sriraman. "Mathematics and Literature (the Sequel): Imagination as a Pathway to Advanced Mathematical Ideas and Philosophy." *The Australian Mathematics Teacher*. vol. 60, no. 1, 2004, pp. 17-23.
- Goudarzi, M. M., Jamili, L. B., Zarrinjooee, B. (2014). A Journey to Poetry of Geometrical Shapes from the Ancient time to Poetry of John Hollander, *Journal of Novel Applied Sciences*, 3(7), 771-776.
- Милић, К. (2015). Функција математичких појмова у поезији Ежена Гијвика, УДК.

Uspešni STEM projekti – praktične ideje i prikaz

NINA STOJANOVIĆ

SCIENCE ON STAGE - FESTIVALSKI PROJEKTI



Nina Stojanović,

direktor Centra za projekte Instituta za moderno obrazovanje,
docent na Fakultetu Savremenih umetnosti i
član Nacionalnog upravnog odbora Science on Stage Srbija mreže

SCIENCE ON STAGE - FESTIVALSKI PROJEKTI



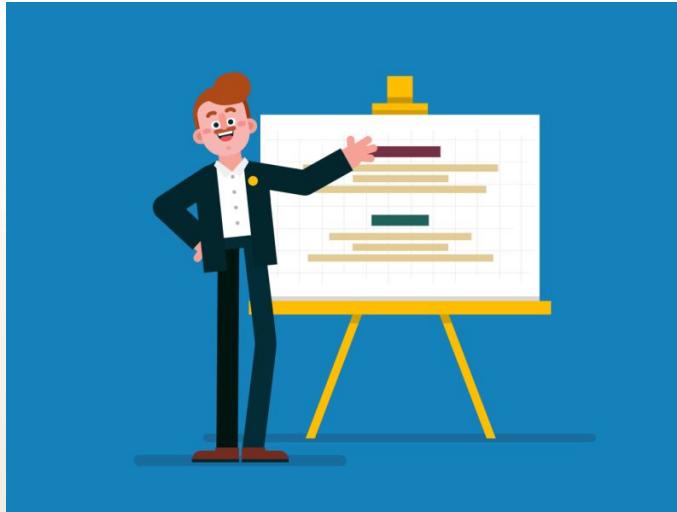
Pogledajte iza kulisa festivala Science on Stage 2019 i saznajte više o dalnjim aktivnostima.

Science on Stage festival 2022

12. Evropski Science on Stage festival održaće se od 24. do 27. marta 2022. u Pragu, Češka.

Na najvećem evropskom sajmu obrazovanja za nastavnike STEM-a oko 450 nastavnika osnovnih i srednjih škola iz preko 30 zemalja okupljaju se kako bi razmijenili koncepte podučavanja i najboljih praksi. Svoje najinovativnije ideje "od nastavnika za nastavnike" na sajmu, u radionicama i performansima.

SCIENCE ON STAGE - FESTIVALSKI PROJEKTI



1. PLAY A ROLE AND LEARN
SCIENCE IN EARLY YEARS
2. TERMIČKA IZOLACIJA? TEMA ZA OSNOVNU ŠKOLU ?
3. MISTERIOUS CUP
Low-Cost and Recycled Science
4. SENSORY INTEGRATION IN MATHEMATICS
Inclusive Science

PLAY A ROLE AND LEARN

PLAY A ROLE AND LEARN

Stand number K04

Country Finland

Teachers Kaisu Pöysö, Anniina Vimpari

Institution Päiväkoti Piilometsä

Subjects Mathematics, science, literature, history, exercise, art, music

Ako ste ikada predavali - ili čak samo gledali nekoga kako uči nešto novo kroz igru - uloga igre u učenju je fascinantna.

Ovde učenici mogu direktno da komuniciraju sa sadržajem bez grubog nadzora, ocenjivanja ili dešifrovanja „poruka nastavnika“.

Kada se to dogodi, više je volje za eksperimentisanjem, razumijevanjem, radoznalost i odgovornost prema vlastitim standardima za postignućima. Jedan neposredni efekat ovoga je personalizacija učenja za onoga koji uči.

Science in Early Years



Kaisu Pöyskö & Anniina Vimpari | Kindergarten Piilometsä | Oulu | Finland

Play a role and learn



Four outdoor projects

Prehistory

Creativity is an asset of the future. The children are allowed to play roles while exploring, experimenting and solving problems.



Water protection

Children are involved in project:

- Design, work and reflection.



Recycled and natural materials are used.

Teaching takes into account the interests of children.

- Children are allowed to use imagination.
- Children are active and come up with their own ideas.
- Instead of studying inside children work outdoor or in nature.
- Many subjects can be combined: example art and exercise.
- No whole group: individual and small group work.



U projektu **Piilometsa**, deca koriste svoju maštu, preuzimaju različite uloge i uče u isto vreme. Oni zajedno sa nastavnikom dizajniraju, implementiraju, dokumentuju i vrednuju projekat.

Projekti pokrivaju različite teme kao što su istraživanje života životinja, svemira i praistorijskog puta razvoja.

Institution [Päiväkoti Piilometsä](#)



The learning process motivates if it matters in the child's life.

Project: <http://www.piilometsa.fi/2019/08/play-role-and-learn-four-outdoor.html>

www.piilometsa.fi



LUMA CENTRE FINLAND

Nastava van učionice podstiče decu na rad i njihovu aktivnost, poboljšava istraživanje u malim grupama. Zanimljiva tema "vuče" decu da razumeju materiju i oni teže da sami reše probleme. Projekat je interdisciplinaran i uključuje matematiku, književnost, umetnost, izražavanje, ekologiju, prirodu i fizičke vežbe.

Учителји без јурбе подстичу децу да покушају да истраже свет око себе.

Play a role and learn

BE LIKE AN ANIMAL: BAT



Naziv projekta je **Dan kao šišmiš**.

Za ovu temu inspiracija je došla od šišmiša koji živi u podrumu bake Marije, bake jednog od učenika.



Potražnja šišmiša na obližnjem ostrvu

THE BAT LIVED
IN A NEIGHBOR'S CELLAR



IMAGINATION: LOOKING FOR BATS

AROUND THE ISLAND



Potražnja šišmiša na obližnjem ostrvu



©pujowetsoj

BAT'S NIGHT



OVERNIGHT IN THE HUT



U noćnom vrtu deca su prenociila u dvorištu



SE ON NISÄKÄS.

BAT'S LIFE

DIMENSIONS:

PITUUUS:

©Pihlometsä

48-70MM + HÄNTÄ 38-50MM

SIIPIVÄLI:

236-270 MM

PAINO:
8-14 G

ELINIKÄ
N. 14-15 YUOTTA



EMO SYNNYTÄÄ 1-2
POIKASTA.

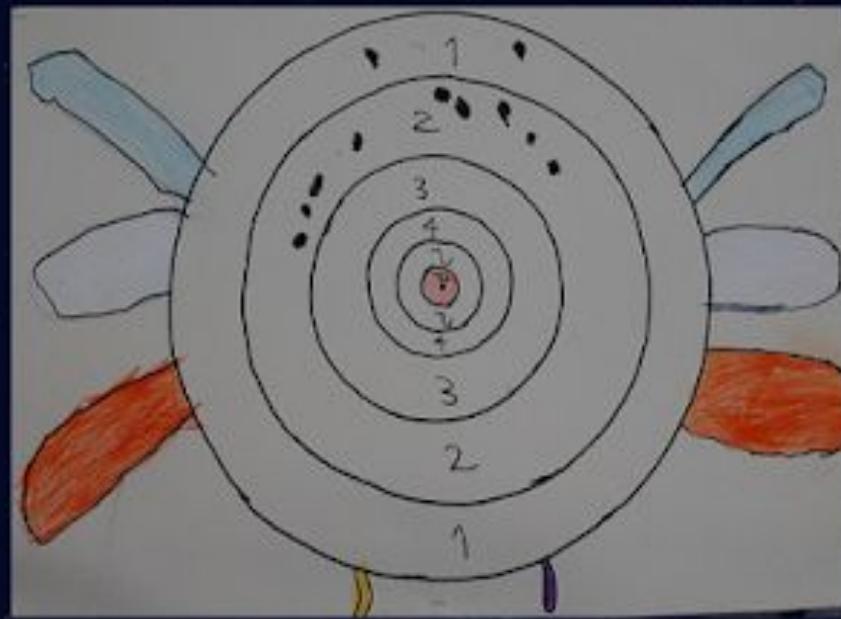
©Pihlometsä



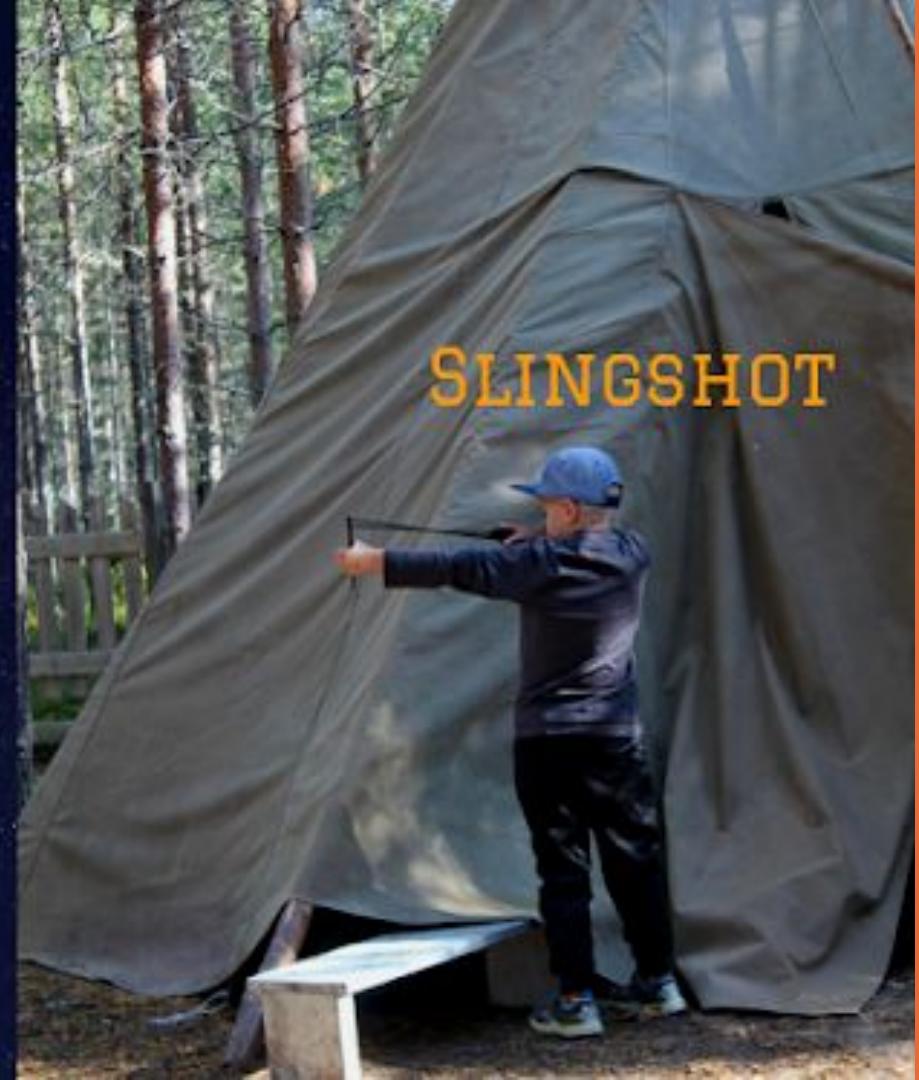
BATS COTTAGE



BAT GAME



* THE BAT CATCHES
THE INSECT.



BAT DETECTOR



Probali su detektor

čišćenja

koji je sposoban da registruje zvuk šišmiša.

28 MHZ



Izložba



DRAWING AND WRITING

THIS IS CALLED LILLI BATGIRL

THERE WAS AN ANIMAL ART EXHIBITION IN THE YARD.





Termička izolacija? Tema za osnovnu školu ?



Kompleksna i visoko naučna tema prilagođena interesima naših najmladih.

Termini **održivost** i **energetska efikasnost** su maksimalno prisutni u svakodnevnom životu ali šta to znači za decu?

Projekt pokazuje kako kompleksna tema termalne izolacije može biti prezentovana na jednostavan projektni način.

Cilj ideje da promoviše brigu o održivosti da implementira sopstvene ideje, da uključi konkretna stanja i da učenici nižih razreda shvate zakone fizike.



Termalna izolacija? Tema za osnovnu školu ?

Nagrađen projekt!

WE BECOME INSULATION EXPERTS!

Stand number K01

Country Germany

Teachers Silke Puda, Ricarda Rustige

Institution [Grundschule Birth](#)

Subjects Science, German, art



Termička izolacija? Tema za osnovnu školu ?

- Projekat je nastavna serija orijentisana na temu „toplota izolacija“.
- Učenici upoznaju tehničke načine razmišljanja i rade u cilju razvoja promocije održivog razmišljanja.
- Učenici su sproveli sopstvene ideje, posmatrali konkretnе uslove i iskusili efekte jednostavnih fizičkih sila.



A Mysterious cup

Šolja je u stanju da proizvede zvuke koji su ponekad neobični, poput onog koji možete čuti kada udarite u šolju punu vrućeg mleka i u koju ste dodali čokoladu u prahu.

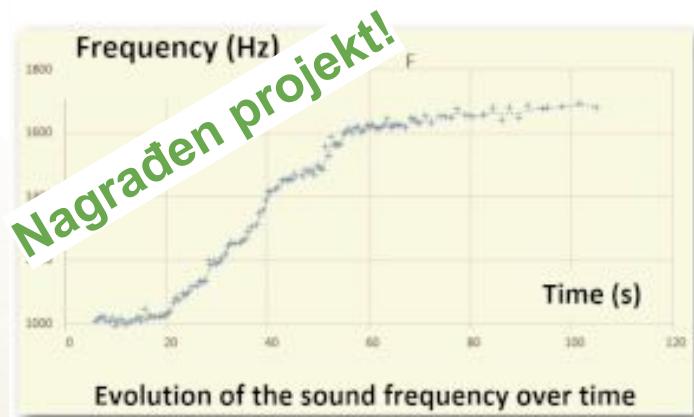
Zaista, frekvencija zvuka raste sa svakim snimkom. Kako to možemo objasniti?

Kroz ovaj projekat, studenti mogu da nauče naučni pristup koristeći pristupačne materijale: šolju, čokoladu, kašičicu.

Oni takođe koriste kao senzore, dnevnu tehnologiju (kompjuter mobilni telefon) kako bi obavili eksperiment.



Zaključak: pronaći rešenje zaista zabavno, Ali istraživanje je mnogo više interesantno i pokazuje učenicima Zašto je nauka čarobna!



Ovo je projekt pun iznenađenja, realnih priča, protkanih inspiracijom!

Na primer studenti vide kako mehurići nestaju u ovom eksperimentu.

Ali kako mehurići mogu promeniti zvučnu frekvenciju?

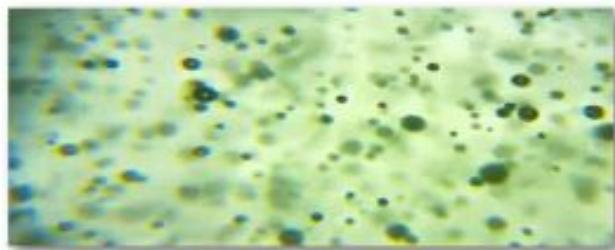
Pošto znamo da se frekvencija povećava, to znači da postoji parametar koji se menja kroz vreme.

Koji je ovaj parametar? Temperatura? Mehurići?

I kako možemo dokazati razne razmatrane mogućnosti?

Da bismo razumeli poreklo povećanja ove učestalosti, pratili su naučni proces kroz eksperimente.

Svaki korak ovog procesa je pomogao učenicima da dobiju više informacija koje vode do odgovora na zagonetku.



Nagrađen projekt!

A MYSTERIOUS CUP

Stand number

M10

Country

France

Teacher

Jean-Brice Meyer

Institution

LP2I

Subjects

Physics





SENSORY INTEGRATION IN MATHEMATICS



Nagrađen projekt!



Podučavanje matematike dece sa autizmom ili intelektualnim poteškoćama zahteva efikasnost metodoloških tehnika i alata.

Svrha projekta je stvaranje i upotreba vidljivih **SensoriMath-Lapbook** pri proučavanju razlomaka i upotreba posebnog okruženje, senzorna soba sa mekanim modulima, u procesu učenja matematike.

Vizuelni elementi i taktilna podrška pomažu deci sa autizmom; proširuju i usavršavaju ideju celine i delova. Rezultat je da su studenti bolje upoznati sa razlomcima.

Oni primećuju vezu između broja jednakih delova i imena svakog dela.

Čulna stimulacija pomaže deci da duže ostanu koncentrisana i pažljiva.



SENSORY INTEGRATION IN MATHEMATICS

Stand number L10

Country Ukraine

Teacher Olena Kovalova

Institution Secondary school №8

Subjects Mathematics



PANOE projektata možete pogledati
[ovde](#)

Low-Cost and Recycled Science



Low-Cost and Recycled Science |  

Dipl.-Ing. Angelika Fenzl | Oberschule - Secondary School | Innsbruck | Austria
An Experimental Box for kids

The students already knew that they can learn science through playing. A few pupils and teachers have decided to build their own experimental box and build up a real science workshop for the school. They wanted to make it available for all pupils and not just for those who have the chance to go to a science museum or to have a science teacher at home. The experiments are related more than anything else to the pupils' everyday life: safety, electricity, tools, water, plants and animals.

350 Students benefited from their self-made experimental box for their own use. This experimental box is used in class and can be taken home by the students to repeat the experiments and re-test and consolidate the results.

Experimental Box for Kids (Austria)



Low-Cost and Recycled Science |  

Ferd. Obermayer | Naturwissenschaften Klasse 10 | George C. College | Innsbruck | Austria
MathsMagic – Mathematics by magic tricks

Students are interested in mathematics. But many of them are afraid of it. We have decided to make it easier for them. We have created a small workshop where they can learn new things about mathematics. It's not just about learning new things, but also about having fun. The workshop is called "MathsMagic".

The MathsMagic box contains a lot of different things that help the pupils to understand mathematics better. There are also some games and puzzles that make learning more interesting.

MathsMagic (Austria)



Low-Cost and Recycled Science |  

Todor T. Ivanov | Natural High School of Advanced and Mathematics | Sofia | Bulgaria
Affordable Experiment For Every Pupil

Everyone has the right to have the same opportunities to learn. That's why we have created this website. It's for everyone who wants to learn something new. We have created a simple experiment for everyone to do at home. The experiment is about the properties of light and how it interacts with different materials. It's a simple experiment that anyone can do at home.

The experiment is based on the principle that light reflects off surfaces. By reflecting off surfaces, light can change its path. This is what we call reflection. The experiment is simple and easy to do. You just need a few simple materials like a mirror, a lamp, and a piece of paper.

Affordable experiment for every pupil (Bulgaria)



Low-Cost and Recycled Science |  

Antonela Nacheva | Prof. Prof. Stefan Nichev Mathematical High School | City of Zagreb | Bulgaria
Cheap Science – Real Physics

Students are curious about science. They want to know more about it. That's why we have created this website. It's for everyone who wants to learn about science. We have created a simple experiment for everyone to do at home. The experiment is based on the principle that light reflects off surfaces. By reflecting off surfaces, light can change its path. This is what we call reflection. The experiment is simple and easy to do. You just need a few simple materials like a mirror, a lamp, and a piece of paper.

The website is designed to be easy to use. It has clear instructions and step-by-step guides. It also has a lot of information about science, so you can learn more about it. The website is free to use, so you can use it whenever you want.

Cheap Science – Real Physics (Bulgaria)



Low-Cost and Recycled Science |  

Mihail Kavalev | First Private Mathematical High School | Sofia | Bulgaria
Liquid world – Interesting experiments with liquids

In this project, we demonstrate interesting phenomena, related to liquids. As part of our project, we will demonstrate some interesting experiments with liquids. We will show how liquids behave under different conditions and how they interact with each other.

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Liquid world (Bulgaria)



Low-Cost and Recycled Science |  

Paul Mirell | Grade 9 & 10 Secondary School | Toronto | Canada
Magnifying Curiosity – Foldscopes

Our Foldscope is a device that allows you to magnify objects up to 30x. It's made from a simple paper template that you can print out and fold into a microscope. It's perfect for learning about biology, chemistry, and physics. It's also great for exploring the world around us.

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Magnifying Curiosity – Foldscopes (Canada)



Low-Cost and Recycled Science |  

Jan Bráka Mirek | I.P.T. | Janaček Gymnasium | Prague | Czech Republic
Playing with Sound

This project aims to introduce students to the concept of sound and its properties. Students will learn how sound is created and how it travels through different media. They will also learn how sound can be measured and how it can be used to solve practical problems.

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Playing with sound (Czech Republic)



Low-Cost and Recycled Science |  

Isabelle Rizzo | Institut National de Recherche en Sciences et Technologies pour l'Environnement et l'Énergie | Paris | France
A mysterious cup

This project aims to introduce students to the concept of sound and its properties. Students will learn how sound is created and how it travels through different media. They will also learn how sound can be measured and how it can be used to solve practical problems.

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A mysterious cup (France)

WORLD SCIENCE DAY AS A TOOL TO ATTAIN SUSTAINABLE DEVELOPMENT

Stand number	I07
Country	Portugal
Teachers	Raquel Loureiro, Rosa Pereira
Institution	Colégio Luso-Internacional do Porto, CLIP
Subjects	Physics, biology, chemistry, science

UNESCO promotes education for a sustainable development by harmonizing environmental, societal, cultural and economic considerations in the pursuit of an enhanced quality of life. As a joint initiative from the Science Department at CLIP, every 10th November the World Science Day (WSD) takes place. The day was made up of a host of science based activities with the aim of inspiring students and extending their knowledge and understanding of science through fun and hands-on activities. This year, WSD for Peace and Development offered an opportunity to demonstrate how science is relevant to our daily lives and to engage the students and the community.

FIGHTING AGAINST RURAL DEPOPULATION USING TECHNOLOGY: OUR MOBILE APPS

Stand number	I08
Country	Spain
Teachers	Bárbara De Aymerich, Nerea Martínez Baranda
Institution	Escuela de Pequeños Científicos Espacio
Subjects	Technology, science, social sciences, rural development, inclusive science

Rural depopulation is a pressing problem in our region (Castilla y León), a situation that gets worse in the peripheral localities and with adverse climatological conditions, as in the locality in which we live, Espinosa de los Monteros. There, the access to science and technology is complex, but it is a very powerful weapon to fight against the loss of active population. Thanks to this project, girls between 7 and 11 years of age have been able to devise, develop and promote three mobile applications linked to three key aspects in improving the quality of life in rural areas: access to services, education and health care and the environment.

THE EFFECTS OF ACID RAIN ON PLANT GROWTH

Stand number	L05
Country	Spain
Teacher	Alfonso Ales Tejero
Institution	CEIP Joaquín Costas
Subjects	Mathematics, computer science/ICT, science, literacy

A group of students of 5th and 6th grade of primary education carried out an experiment about the effects of acid rain on plants in their zeal to see with their own eyes the impact of this environmental issue in their own village (Graus). It was hypothesised that acid rain would affect the growth of local plants negatively. Therefore, tomatoes and green beans were planted in four types of local soil and watered with different types of water, from the most basic to the most acidic. The results of this experiment, after four weeks of observation, were as expected. Through the scientific method, they could prove the negative effect of acid rain and opened other lines of investigation.



KATALOG projektnih ideja možete pogledati [ovde](#)



Science on Stage festival 2019
Science on Stage - 1 / 52

1 #SonS2019: Control Moment Gyro
Science on Stage 3:15

2 Walking Along the Chromosomes
Cesare Benedetti 1:11

3 #SonS2019: A mysterious cup
jean-brice meyer 6:05

4 #SonS2019: DIY boats
Katka Lipertova 3:33

5 #SonS2019: What have dough and cow dung to do with science?
Science on Stage 2:24

6 #SonS2019: Sharing Science - Junior engineers for space exploration
Science on Stage 4:15

#SonS2019: Was unsere Festivals so toll machen

All Arduino

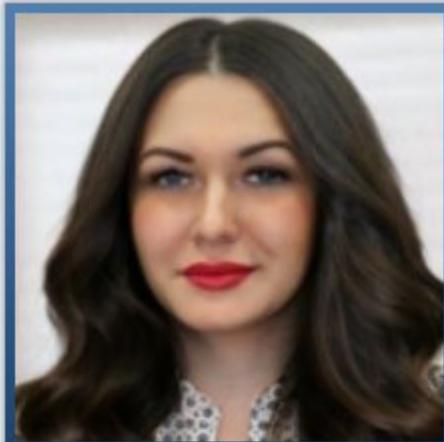


VIDEO prezentacije projektata možete pogledati [ovde](#)

Uspešni STEM projekti – praktične ideje i prikazi

Aleksandra Ikonov, nastavnik biologije i nacionalni koordinator Science on Stage Srbija mreže

Predstavljanje predavača



Aleksandra Ikonov

Koordinator NSC SonS
Srbija

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Ključna
aktivnost



Prvi nacionalni SonS festival, april
2021. godine



Prvi nacionalni Science on Stage Srbija festival: STE(A)M – obrazovanje za (n)ovo doba



BESPLATNA
MANIFESTACIJA
UŽIVO

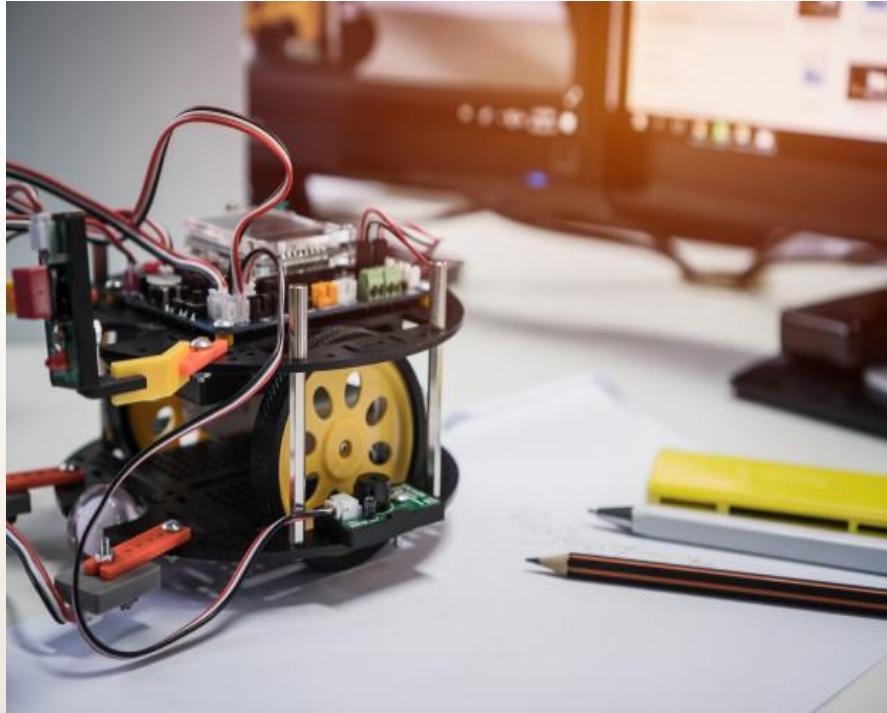


Institut za
moderno obrazovanje
Institute for
Contemporary Education



savremena
GIMNAZIJA I OSNOVNA ŠKOLA

Šta dobijate učešćem na Science on Stage Srbija STEAM festivalu?



★ Biraju se **sjajni primeri STEAM nastave** i **četiri najbolja nastavnika**, koje će Science on Stage Srbija i Institut za moderno obrazovanje poslati na dvanaesti po redu **internacionalni Science on Stage festival**, koji se održava u martu 2022. godine, u Pragu (Češka Republika).

Takmičarske teme SonS festivala

- ★ **Nauka za najmlađe** (projekti za predškolski uzrast i osnovnu školu)
- ★ **Ciljevi održivog razvoja u obrazovanju** (projekti koji pokazuju kako STEAM može doprineti postizanju ciljeva održivog razvoja)
- ★ **Primena tehnologije u STEAM obrazovanju** (projekti koji uključuju kodiranje, ICT, big data, AI, VR, network security)
- ★ **Raznolikost u STEAM obrazovanju** (projekti koji uključuju varijabilnost nastavnih metoda, saradnju između mlađih i starijih učenika, projekti za talentovane učenike, projekti za inkluzivno učenje)
- ★ **STEAM i umetnost** (projekti koji kombinuju STEAM sa drugim disciplinama – umetnošću, muzikom, sportom, istorijom)
- ★ **Kolaborativna partnerstva u STEAM obrazovanju** (projekti koji uključuju i lokalnu zajednicu, na primer između nastavnika, škola, kompanija, različitih zajednica)
- ★ **NOVO: Mogućnosti onlajn nastave (STEAM projekti tokom nastave na daljinu)**

Glavni kriterijumi za odabir najboljih STEAM nastavnih projekata



Prilikom kreiranja idealne projektne ideje za prvi nacionalni Science on Stage Srbija festival trebalo bi imati u vidu da projekat mora da:

- ★ podstiče interesovanje učenika za prirodne nauke;
- ★ povećava učeničku radoznalost, kritičko mišljenje i zaključivanje;
- ★ povezuje nauku i naučne principe sa svakodnevnim situacijama;
- ★ promoviše učenje zasnovano na projektnom ili problemskom naučnom istraživanju;
- ★ podstiče aktivno učenje kroz postavljanje pitanja, problema ili naučnih scenarija;
- ★ jača učenička znanja, digitalne i STEAM kompetencije.



Kako izgledaju festivalski projekti?





**PRIJAVA ZA PRVI NACIONALNI SONS
FESTIVAL JE OTVORENA – naučna
pozornica čeka na vas**

Slanje predloga projekata za festival do 1. aprila
2021. godine na sonsserbia@institut.edu.rs



Prvi krug – slanje predloga STEAM projekta



Do 1. aprila 2021. godine, poslati:

- kratku biografiju i sliku;
- naslov projekta i tekstualni opis projekta uz odabir takmičarske teme i kategorije (do 1 strane A4 formata – font 14, Times New Roman);
- video-materijal – prikaz projekta (materijal poslati u .mp4 formatu, maksimalne dužine 3–5 minuta);
- prezentaciju (maksimalne dužine do 15 slajdova).

Napomena: Materijal za nacionalni SonS festival možete poslati na srpskom ili engleskom jeziku. Za učešće na međunarodnom festivalu obavezno je znanje engleskog jezika.

Drugi krug – učešće na nacionalnom Science on Stage Srbija festivalu



- ★ Najbolji STEAM projektni predlozi biće deo zvanične agende nacionalnog Science on Stage Srbija festivala

- ★ Od učesnika festivala stručni žiri će odabrati četiri zvanična predstavnika Srbije, koji će imatu tu čast i priliku da se nađu među 100.000 STEAM nastavnika iz čak 35 zemalja sveta.



Prijava projekata za festival dostupna je na:
sons.institut.edu.rs/nacionalni-science-on-stage-festival/



Sve informacije o festivalu dostupne su na sajtu Science on Stage Srbija mreže i Instituta za moderno obrazovanje

Pošaljite nam vaše STEM projekte do 1. aprila 2021. na sonsserbia@institut.edu.rs i budite na korak od nacionalnog i međunarodnog festivala



HVALA NA PAŽNJI

Za više informacija možete nam se obratiti putem imejl-adrese: office@institut.edu.rs,
sonsserbia@institut.edu.rs ili pozivom na broj: 011/40-11-260.