



Scientix - idėjos ir resursai STEM mokytojams

Rigonda Skorulskienė
Scientix Deputy Ambassador
Kauno jėzuitų gimnazija

The work presented in this document is supported by the European Commission's FP7 programme – project Scientix 2 (Grant agreement N. 337250). The content of this document is the sole responsibility of the consortium members and it does not represent the opinion of the European Commission and the Commission is not responsible for any use that might be made of information contained herein.



European Commission
Directorate-General for Research



SEVENTH FRAMEWORK
PROGRAMME





STEM Science, Technology, Engineering, Mathematics

- Kaip praktiškai STEAM metodą pritaikote pamokose? 😊
- Kuo šis metodas skiriasi ir yra geresnis už kitus ugdymo metodus? 😊

www.scientix.eu

English

Sign in

Search

HOME

NEWS

EVENTS



SCIENTIX INTERVIEW SERIES

REGISTER

Fields marked with * are mandatory

Username*

Only letters and numbers, minimum 6 characters.

First name*

Family name*

Email*

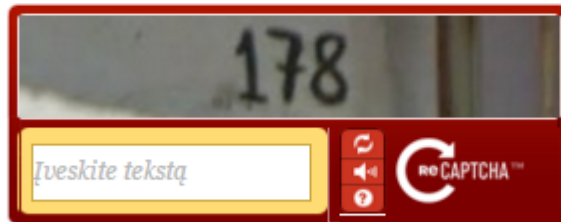
Enter a valid, existing email address

Password*

Choose a strong one!
Minimum 6 characters.
It must contain a mix of letters and at least 1 digit.

Confirm password*

Security check*



Answering the question will prove this is a genuine request and not automated software.

Cannot read it? [Try another one.](#)

I declare that I have read and accept the EUN Partnership AISBL legal statements and privacy policy.*

SUBMIT

Type here your Username/OpenID

SIGN IN

[Create account](#)

[Forgot your password?](#)

[In your country](#)

[Observatory](#)

[Scientix Moodle](#)



English ▾

Sign in

Search



NEWS

RESOURCES

CONFERENCE

Type here your Username/OpenID

rigonda.id.europeanschoolnet.org

SIGN IN

[Create account](#)

[Forgot your password?](#)

Prisijungti

Prašome prisijungti, jeigu norite atverti pageidaujama puslapi .

https:// rigonda .id.europeanschoolnet.org

Jūsų slaptažodis |

GO

Laikyti prisijungus (Panaikinkite žymėjimą, jeigu kompiuteris yra bendras)

Ar jūs [pamiršote savo vartotojo vardą ar slaptažodį?](#)





SCIENTIX

The community for science education in Europe

HOME

PROJECTS

COMMUNITY

NEWS

RESOURCES

CONFERENCE

EVENTS

SCIENTIX LIVE

ABOUT

[Home](#) › [Resources](#)

RESOURCE REPOSITORY

Find resources by keyword

GO

ADVANCED SEARCH

Subject

Min age

Max age

Type

Languages

TEACHING MATERIALS

REPORTS LIBRARY

TRAINING COURSES

LRE MATERIALS

In your country

Observatory

Scientix Moodle

Science it's a girl thing!

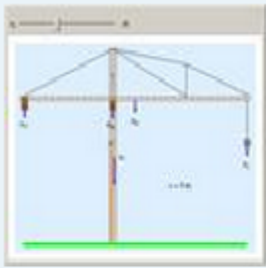
Scientix blog

UPLOAD RESOURCES

SCIENTIX AWARDS

TRANSLATION SERVICE

Get **free** translation of learning resource materials in the Scientix repository



♥ Add to favourites

! Report a problem

Tower Crane

Users' Tags: *primary school, College Physics, Mechanics, Physics,*

Descriptor: *physics*

Copyright: Age: *Older than 14 years old.*

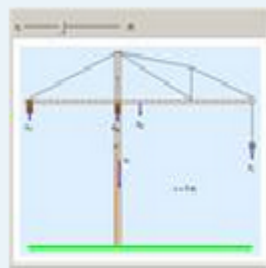
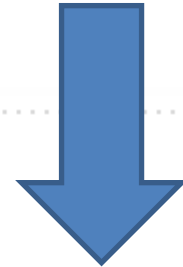
Project: *Wolfram, EU, USA, Japan*

Description: *Tower cranes are used at major construction sites to raise loads up to 120 tons. A tower crane consi...*

DESCRIPTION

GET THIS RESOURCE

COMMENTS



♥ Add to favourites

! Report a problem

Tower Crane

View this in:

en

DESCRIPTION

GET THIS RESOURCE

COMMENTS





THE FIBRE OPTIC CABLE CLASS



♥ Add to favourites

! Report a problem

Users' Tags:

Descriptor: *astronomy optics physics*

Age range: *10 - 14*

Resource type: *enquiry-oriented activity*

Creative commons:

Project: *astroEDU*

Author: *Amee Hennig*

BACK

DESCRIPTION

This activity is an interactive "out-of-the-seat" demo that allows the students to become involved in learning about fibre optic cables by imitating the way that one of them basically functions. While enjoying the physicality of the demo the children will pick up basic details of light, reflection, optical properties, and applications to technology. Additionally, the activity will go into details of how fibre optics is used in astronomy technology to improve our understanding of the universe. Emphasis should be placed on putting direct questions to the children about how these applications can influence technology, astronomy and our world, to reinforce the concepts that they are learning about.

VIEW THIS IN

Lithuanian

English

REQUEST TRANSLATION

bg

bs

ca

cs

cy

da

de

el

es

et

eu

The "NANOPINION: [ix.eu](http://www.scientix.eu/web/TitleResource=NANOPINION)) has been accepted.

a - gl - he -
k - sl - sq - sr

♥ Add to favo

! Report a pr



Pamoka apie šviesolaidinį kabelį

Susipažinkite su nuostabia šviesolaidžio technologija, kuri labai paspartinto techninę pažangą Žemėje ir padeda tyrinėti tai, kas plyti virš mūsų galvų.

Amee Hennig, Integruotos prieigos tinklų centras

Amžius 10–14 m.	Lygis Žemesnysis vidurinis ugdymas, aukštesnysis vidurinis ugdymas	Trukmė 1 val.
Darbas grupėje Darbas grupėje	Prižiūrima Prižiūrima	Kaina Vidutinė (5–25 eurai)
Vieta Patalpa (nedidelė, pvz., klasė)	Svarbiausi gebėjimai Užduoti klausimus; planuoti ir vykdyti tyrimus	Mokymosi veiklos rūšis Dalinė apklausa

Trumpas aprašymas

Ši užduotis – interaktyvi „ne suoluose“ atliekama demonstracinė veikla, kuri padeda sudominti mokinius šviesolaidiniais kabeliais, modeliuojant svarbiausias jų funkcijas. Su malonumu atlikdami fizinius užduoties veiksmus vaikai sužinos svarbiausią informaciją apie šviesą, atspindį, optines savybes ir jų pritaikymą technologijoje. Be to, ši užduotis atskleis, kaip šviesolaidžiai naudojami astronomijoje ir kaip jie padeda mums geriau pažinti visatą. Užduoties akcentas turėtų būti vaikams užduodami tiesioginiai klausimai apie tai, kokią įtaką šios koncepcijos gali daryti technologijai, astronomijai ir mūsų pasauliui, taip įtvirtinant tai, ką jie išmoko.

<http://astroedu.iau.org>

$F_g = \frac{GMm}{r^2} = \gamma \frac{Mm}{r^2}$
 $-\frac{d}{dt} \int 2adA = \int \frac{d^2x}{dt^2} dx = - \int \left(\frac{2g}{2t} = \text{out} (3 \times v) \right)$
 $HCl + H_2O \rightleftharpoons Cl^- + H_3O^+$
 $v = \frac{1}{2} \omega r = \frac{1}{2} (30 \text{ rev} + 30 \text{ rev} + 4 \text{ rev}) \times \frac{1}{60 \text{ sec}} \times \frac{1}{4} \text{ m}$

ASTROEDU

WINNER★ 1st PRIZE
OF SCIENTIX AWARD



JOIN US
VOLUNTEER

PEER-REVIEWED ASTRONOMY EDUCATION ACTIVITIES

Black holes **Search**





English ▾

Sign in

Search



SCIENTIX

The community for science education in Europe

HOME

PROJECTS

COMMUNITY

NEWS

RESOURCES

CONFERENCE

EVENTS

SCIENTIX LIVE

ABOUT

[Home](#) [Scientix Live](#) > [Scientix webinars](#)

2015 SCIENTIX WEBINARS

Scientix is organising a series of webinars on STEM education. They will take place throughout 2015 and are open to anybody interested in science teaching and learning.

The one hour-long webinar sessions are an ideal opportunity for Scientix community members to explore exciting STEM-related topics, such as 1:1 computing, language learning in the science classroom, STEM in lower grades, or online science simulations in IBSE.

Each webinar is led by an expert in the particular field – a member of the Scientix Teacher Panel. Participation is free, registration is required. Places are reserved on a first-come, first-served basis and attendees receive a certificate of attendance.

For further details and instructions, look out for the information on upcoming webinars.

PAST AND UPCOMING WEBINARS

In your country

Observatory

Scientix Moodle

Science it's a

Scientix blog

2015
27 Oct

MOBILE APPLICATIONS FOR STEM EDUCATION: HOW TO USE THEM IN CLASS

Location: Online

Organizer: Scientix

Type of event: webinar

engineering, technology

Language of event: English

Target groups: counsellors, educational authorities, learners, policy makers, researchers, teachers

Topic: information and communications technology, science education, software

Register for the webinar!

The webinar will take place on **27 October 2015 at 17.00 Central European Time in the Scientix online meeting room**. After registration, you will receive an email with instructions. NB: Places are limited and will be allocated on a first-come, first-served basis!

Webinar outline:

In this webinar, Tatjana Gulic will present various applications for Android, iOS tablets and other mobile devices and how to use them in class.

Some of these applications are useful for maths classes (Math Duel, Fraction Plus, MyScript Calculator, MathAlly Graphing Calculator) and some for astronomy (Google Sky Map, Solar System). Tatjana will also present tools that help to make books "interactive" (Aurasma) and applications for knowledge quick view and/or assessment (Plickers and some other quizzes apps).

The focus will be on how to use them in the classroom. At the end, she would like to invite the participants to share their favourite tools for tablets and their experience with them in real contexts.

About the presenter:

Tatjana Gulic is a Scientix Ambassador, a teacher of maths and physics in lower-secondary school (age 12 to 15) and co-author of physics textbooks and workbooks for students. She is also the designer of a school's website and administrator of the online portal of a physics teachers' community in Slovenia. She has been an eTwinning Ambassador for several years.

Url: <http://goo.gl/forms/oy8vcUhoZm>

Registration to Scientix Webinar - Mobile applications for STEM education: how to use them in class - 27/10/2015

The webinar will take place on the Scientix online meeting room. After registration, you will receive an email with instructions. Places are reserved on a first-come, first-served basis.

* Required

Name *

Surname *

Country *

email *

You are a: *

- Scientix Ambassador
 Scientix Deputy Ambassador
 STEM Teacher

Other:

How did you find out about the webinar? *

- Via the Scientix (Deputy) Ambassador mailing list
 Through the Scientix Digest
 Via the Scientix website
 Via my national Scientix (Deputy) Ambassador
 Via Social media

Other:



SCIENTIX

The community for science education in Europe



English ▾

Sign in

Search



HOME

SCIENTIX LIVE

COMMUNITY

EVENTS

PROJECTS

CONFERENCE

NEWS

RESOURCES

ABOUT

[Home](#) > [Projects](#)

PROJECTS



Filter by:

[See all](#)

Country ▾	Topic ▾	Target groups ▾
Funding ▾	Starts after ▾	Ends before ▾

Projects looking for teachers

Ongoing projects

APPLY FILTER



XJENZA@HANDAQ: ENTREPRENEURSHIP IN SCIENCE

19/10/2015

Have you ever lit up a bulb while you exercise, seen a dancing plant or a chemical clock? At Xjenza@Handaq you will see this ...and much much more!

[Read more...](#)



GOING RENEWABLE

22/10/2015

[In your country](#)

[Observatory](#)

[Scientix Moodle](#)

[Science it's a girl thing!](#)

[Scientix blog](#)

If you know of European or national project on STEM education, please let us know.

SUBMIT PROJECT

Read more on what Scientix offers to science education projects

• [Online meeting room](#)

Search Results



Make your own digital telescope!

Wednesday, September 9th, 2015

Reading an article about the Mobizen app I came to an idea that I had thought about when I was a 12 year old boy. As a child, I was interested in astronomy. I remember my first use of a telescope. I didn't have much knowledge about planets and stars...

Posted in [Uncategorized](#) | [No Comments](#) »



Making the most out of your tablet

Thursday, July 9th, 2015

Image: Shutterstock/Monkey Business Images (2) The Android marketplace is a glory place for everyone. Here you can find apps for everything: kids can find the best games, managers can find ways to improve their productivity and teachers, the best apps for their lessons. That's why it is not even...

Tags: [app](#), [ICT](#), [mobile technology](#), [tablet](#)

Posted in [Uncategorized](#) | [1 Comment](#) »

WELCOME TO THE SCIENTIX BLOG

Through this blog, people connected to Scientix (EUN colleagues, Scientix Ambassadors and Deputy Ambassadors, Scientix friends) will publish personal stories on science education in Europe.

The opinions in the articles are the sole responsibility of the corresponding authors and they do not represent the opinion of the European Commission, European Schoolnet (EUN) nor Scientix, and neither the Commission nor EUN nor Scientix are responsible for any use that might be made of information contained herein.

For official news, please check the Scientix website:
www.scientix.eu

Search for:

REGISTER FOR THE NEXT SCIENCE WORKSHOP AND SCIENTIX NETWORKING EVENT

19/10/2015



Country:
Belgium

Topic:
Applied sciences,
Education, Project,
Meeting, Event

Target groups:
education authorities,
policy makers,
researchers, teachers,
trainee teachers

The ninth and final edition of the Science Projects Workshop in the Future Classroom Lab and the Scientix Projects Networking Event this year will take place in Brussels, Belgium, from Friday 6 to 8 November.

Representatives of European and national science education projects and organisations are invited to participate in the **Scientix Projects Networking Event on Friday 6 November 2015**. This event is organised in collaboration with the [I-LINC project](#) and presents experiences of STEM and digital skills inside and outside the classroom.

[Find more information about the event and register here no later than 23 October if hotel and flights to Brussels are needed, and 28 October if no such booking is required.](#)

Following this event, Scientix invites thirty heads of schools to participate in its **Science Projects Workshop in the Future Classroom Lab from 6 to 8 November 2015**. The attendees are introduced to the Scientix project and how STEM teachers benefit from it and other science projects.

[Find more information about the event and register here no later than 19 October 2015.](#)



[Observatory](#)

[Scientix Moodle](#)

[Science it's a girl thing!](#)

[Scientix blog](#)

[SUBMIT NEWS](#)

Let us know about any news you have for teachers or researchers in science education.

Subscribe to our email updates to get all the latest news!

[SIGN UP](#)

[INTERVIEW SERIES](#)

[DID YOU KNOW?](#)

The Future Classroom Lab



The Future Classroom Lab



The Future Classroom Lab



The Future Classroom Lab





SCIENTIX

The community for science education in Europe

Scientix Moodle

You are not logged in. ([Login](#))

English (en) ▼

Online Users

(last 5 minutes)
None

Calendar

April 2015

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Course categories

- Scientix courses
 - New courses!! (March 2015)
 - Courses (September 2014)
 - A-STEM Tools for Teachers
 - B-Office Tools for Teachers
 - C-Web2 Tools for Teachers
 - D-Moodle training
- Other courses
 - SPICE
 - FP7
 - Extra courses

[In your country](#)

[Observatory](#)

[Scientix Moodle](#)

[Science it's a girl thing!](#)

[Scientix blog](#)

Search courses:



Activities

Forums

Search Forums

Go
Advanced search ?

Administration

Enrol me in this course
Profile

My courses

Using GP education
All courses

Topic outline

The exponential decay law

Aim of the course

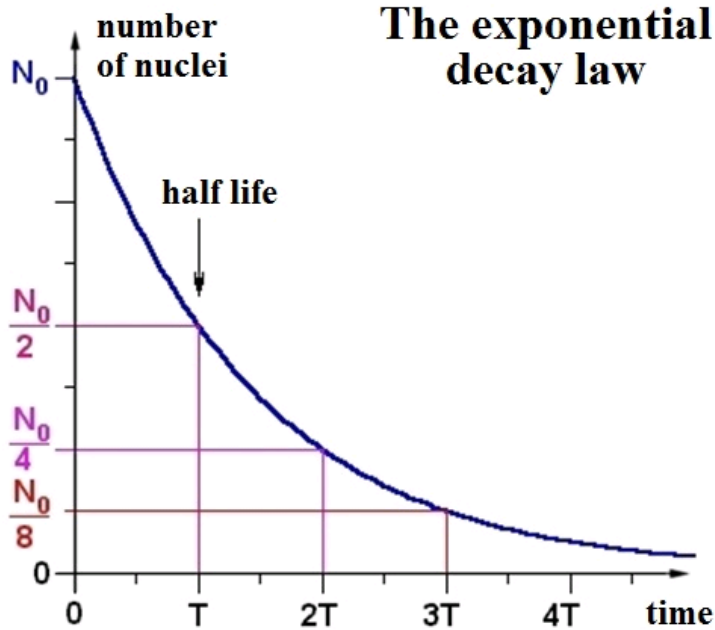
The aim of this course is to teach some of the fundamental properties of the radioactivity: the random behaviour, the exponential decay law, notions of half-life, decay constant and activity.

Necessary tools:

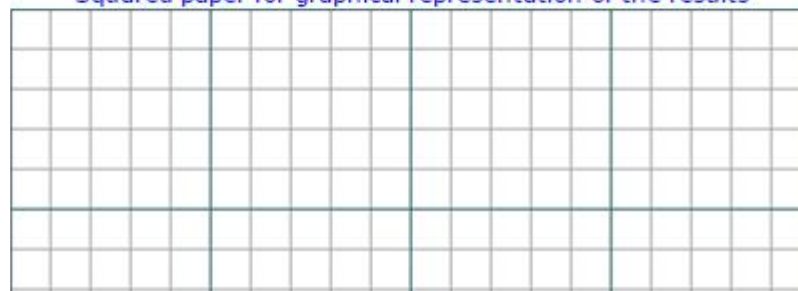
30 similar coins, these are modeling the radioactive nuclei

Introduction

If the result is plotted well, you get a curve similar see below.








Squared paper for graphical representation of the results

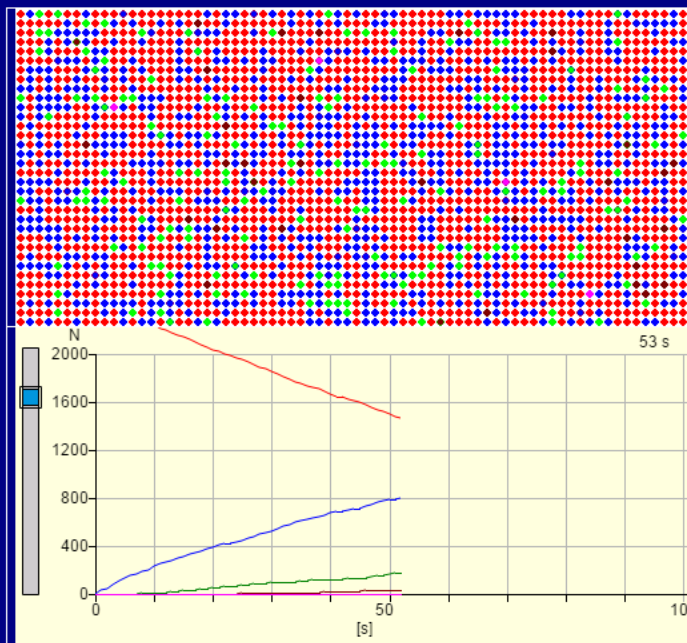


Simulation of decay chain © Cs. Sükösd 2013

Restart Continue Stop **Running**

Color	Decay probability / s	No. of particles
	0.01 [1/s]	1467
	0.0 [1/s]	799
	0.0 [1/s]	179
	0.0 [1/s]	33
	0.0 [1/s]	4

The simulation shows the temporal development of a decay chain – consisting of 5 members –, where the 5th member is a stable isotope (its decay constant is zero), and the decay constants of the first four elements can be set. The screen refreshes in every second. In the initial state there are 2482 atoms from the first element. The 5 elements of the decay chain are represented by circles of different colors: red => blue => green => brown => purple. [More...](#)



7 Useful links

<http://sukjaro.eu/SCsaba/DecaySeries/DecaySeries.htm>

<http://www.walter-fendt.de/ph14e/decayseries.htm>

<http://www.walter-fendt.de/ph14e/lawdecay.htm>

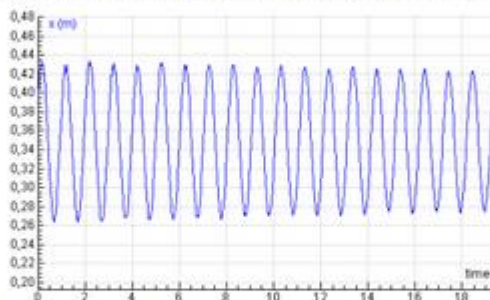
<http://www.sikh-history.com/education/physics/rad.html>



2 Unit 2. Oscillations

In this unit you can learn:

1. How to prepare a data-logging experiment and analyze data using Coach 6 or Insight iLOG?
2. How to carry out physics lessons based on data-logging experiments?



You can create own graph based on real data.

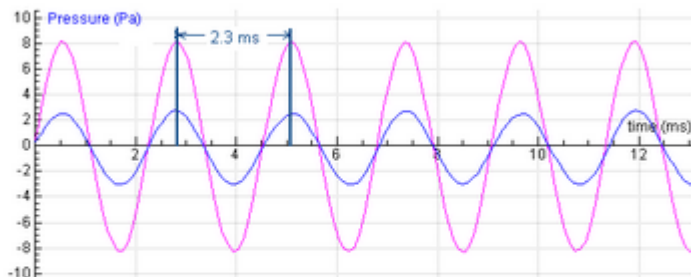
- [Demonstration videos](#)
- [Oscillations - lesson plan](#)

Download the file [oscillation_data.xlsx](#) (see below) and create a **position**. What is the relationship between force and position? Is the graph presented on video?

- [oscillation data](#)

3 Unit 3. To see sound

Now you can make data-logging experiment - registration of the acoustic signal generated by a vibrating tuning fork and the vocal cords (pronouncing vowels).



Two sound waveform graphs of the same tuning fork were registered. What is the difference between them? How was it done? Can you see connection between sounds and oscillations?

Unit SOUND, developed by ESTABLISH project, contains a lot of interesting data-logging student activities and materials for teachers.

- [Unit Sound - ESTABLISH project](#)

Using GPS in science education

You are logged in as [Rigonda Skorulskienė](#) (Logout)

Scientix ► SCX203

People

 [Participants](#)

Activities

 [Assignments](#)
 [Forums](#)
 [Resources](#)
 [Surveys](#)

Search Forums

[Advanced search](#) 

Administration

 [Grades](#)
 [Profile](#)

My courses

 [Using GPS in science education](#)
[All courses ...](#)

Topic outline

Using GPS in science education



The author

This course was done by [Norbertas Airošius](#), Scientix Deputy Ambassador for Lithuania, and teacher of informatics and robotics at Neringa. Norbertas has participated as teacher-researcher in EUN projects as ASPECT, ITEC and SMILE.

This course consists of three linked modules. In first module "Effective GPS application model" we review and determine the success assumptions for effective GPS application in science education. In the next module "Android App for GPS" you will gather the necessary skills to GPS-based research and learning using Android App "GPS

SCIENCE: IT'S A GIRL THING!

In 2012, the European Commission has launched the campaign "Science: it's a girl thing!" to encourage girls aged 13-18 to study science. That is the age range when young people tend to choose major school subjects that will influence their future career. At this point in their education they gravitate towards or away from science and technology studies.

"Science: it's a girl thing!" is rooted in the active participation of women scientists acting as role models. Up to now, more than 100 of them have contributed to the campaign through various activities: participation in [events](#) and workshops with teenagers, [video portraits](#), [chats](#) on the Facebook page to exchange with girls on their careers and passion for science, and photos of their professional and private life for the '[Instant Science](#)' [photo album](#).



Through a partnership with Scientix, the campaign is now addressing teachers as well. To this end, a brochure to promote gender equality in the classroom is in preparation, and will be finalised with the support of science teachers and science education/gender experts. The brochure will be part of a "teacher's suitcase", together with gadgets from the campaign, and will be free of charge for you. More activities for teachers on gender will be organised in collaboration with Scientix in the course of

2014.

Invite your students to learn more on this campaign!

Join us on [Facebook](#)

Visit our [website](#)

Contact: RTD-WIRI@ec.europa.eu

WOMEN IN RESEARCH AND INNOVATION



[In your country](#)

[Observatory](#)

[Scientix Moodle](#)

[Science it's a girl thing](#)

[Scientix blog](#)

Subscribe to the Science: it's a girl thing! newsletter to be kept right up-to-date about the latest events and initiatives of the campaign:

[SIGN UP](#)



RESEARCH & INNOVATION

Science: It's a girl thing!

European Commission > Research & Innovation > Science: It's a girl thing! > Science: it's a girl thing!

Share



SCIENCE: IT'S A GIRL THING!



bg български

cs čeština

da dansk

de deutsch

et eesti

el ελληνικά

en english

es español

fr français

ga gaeilge

hr hrvatska

it italiano

lt lietuvių

lv latviešu

hu magyar

mt malti

nl nederlands

pl polski

pt português

ro română

sk slovenčina

sl slovenščina

fi suomi

sv svenska

TIKSIEJI MOKSLAI TINKA IR MERGAITĖMS!



Estelle Mossou,

Prancūzija,
Fizikė,
Laue-Langevino
institutas, Grenoble



→ Moterų mokslininkių istorijos

Atrask savyje mokslininkę Klausimynas



Tavo svajonių darbas
vos po 3
spragtelėjimų!

Nuotraukų konkursas

Ką tau reiškia mokslas?



Dalyvaukite

Organizacijos ir renginiai



Kodėl tu PAMILSI mokslą ♡

Svajonių darbas

Mechanikos inžinierė



→ Žiūrėkite visus svajonių darbus

Pradžia | Moterų mokslininkių istorijos | Organizacijos
Svajonių darbas

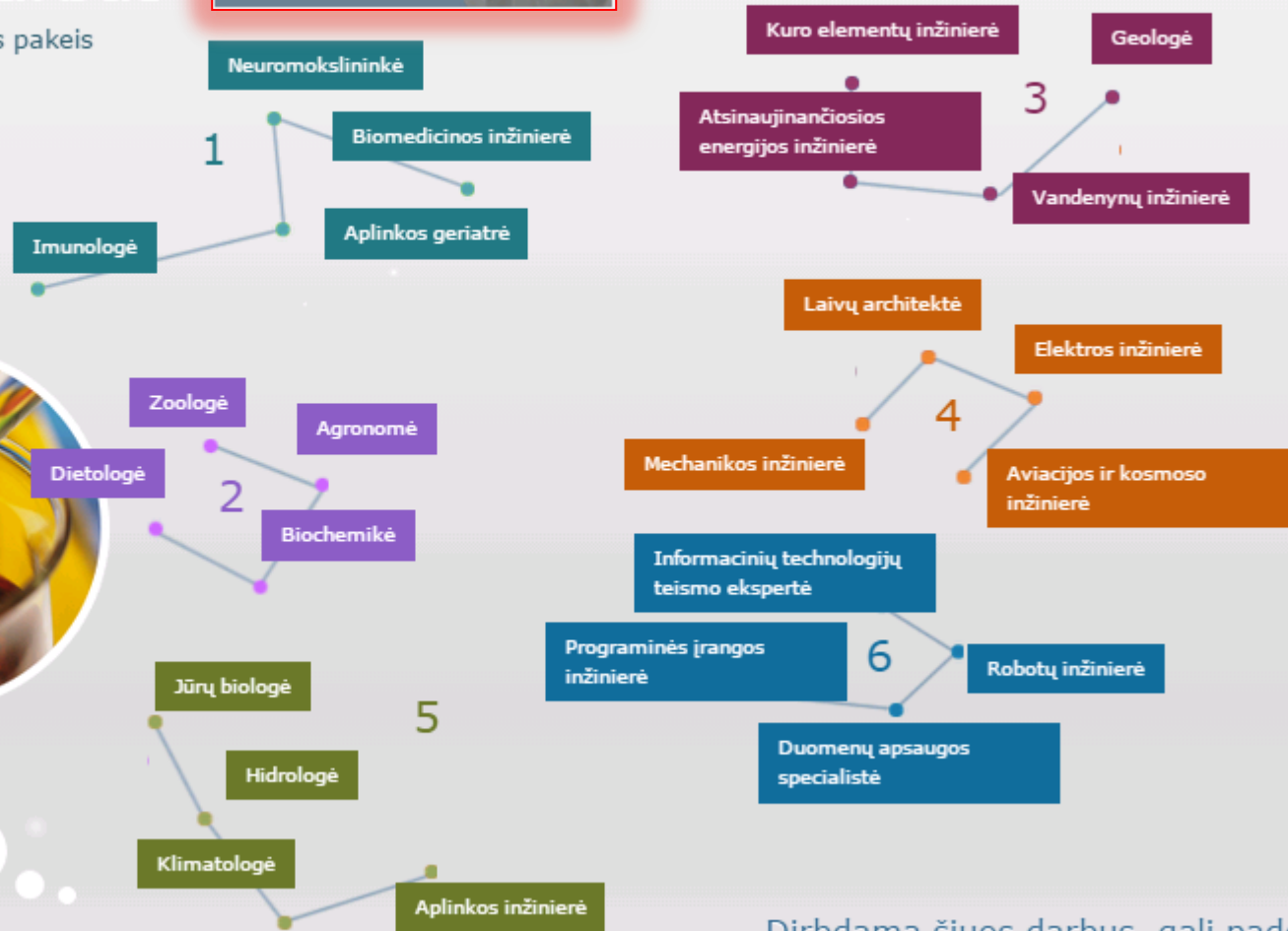
Bendrinti

f Programa – klausk mokslininkės




Svajonių darbas

Išsirink mokslinį darbą, kuris pakeis ateitį




Dirbdama šiuos darbus, gali padėti spręsti tokius iššūkius kaip...

Nuotraukų konkursas „Ką tau reiškia mokslas?“

Apie konkursą 

Dalyvaukite 

Dabartinis konkursas 

Ankstesni konkursai

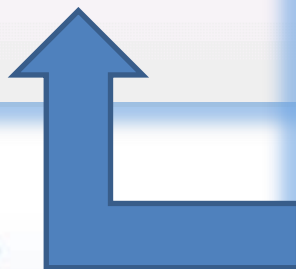
Mokslas yra šalia mūsų. Nuo keistų reiškinių iki stulbinančių mokslinių faktų praktikoje – norime pamatyti, kas patrauks tavo dėmesį. Norėdami dalyvauti nuotraukų konkurse suburkite trijų žmonių grupę, kurioje būtų bent dvi mergaitės. Jūsų nuotraukoje neturi būti atpažįstamų žmonių.

Dalyvaukite dabar, ir jūsų grupė galės laimėti kelionę į Milaną (Italija) bei dalyvauti Europos Sąjungos jaunųjų mokslininkų konkurse arba „Ice-Watch“ laikrodį ar įmantrią Bluetooth kolonėlę!

Tai mėnesinis konkursas, todėl nuotrauką privalote pateikti nuo 16-os iki paskutinės kiekvieno mėnesio dienos.

Prizai

Mėnesio prizas



Nuotraukų konkursas

Ką tau reiškia mokslas?



Dalyvaukite

Kodėl tu PAMILSI mokslą

Pasinaudok savo vaizduote ir kūrybingumu

Dirbant mokslinį darbą itin svarbu kurti, pastebėti ryšius, užduoti klausimus ir suprasti, kaip ir kodėl veikia įvairūs dalykai. Jei nori atsakyti į klausimus „Kodėl? Kaip? Kada? Kas, jei...?“ ir išrasti ką nors, apie ką dar niekas nėra pagalvojęs, vadinasi, priėmei teisingą sprendimą.



Konferencijos



rigonda@gmail.com