



$$\begin{aligned} &\Rightarrow x^2 + px + q = 0 \\ &\rightarrow x_{1/2} = -\frac{p}{2} \pm \sqrt{\left(\frac{p}{2}\right)^2 - q} \\ &f_r = \frac{1}{2\pi} \cdot \frac{1}{\sqrt{LC}}; \omega = 2\pi f_r \\ &u_c = U(1 - e^{-t/\tau}) \\ &4FeS_2 + 11O_2 \rightarrow 2Fe_2O_3 + 8SO_2 \\ &-\frac{d}{dt} \int_A \mathbf{B} \cdot d\mathbf{A} = \oint_L \mathbf{E}' \cdot d\mathbf{l} = - \int_A \left(\frac{\partial \mathbf{B}}{\partial t} + \text{rot}(\mathbf{A}) \right) \cdot d\mathbf{A} \\ &HCl + H_2O \rightleftharpoons Cl^- + H_3O^+ \\ &V = \frac{1}{6} \pi h (3e_1^2 + 3e_2^2 + L^2) \quad ?v = \int_{\varphi=0}^{2\pi} \int_{\rho=0}^{\rho_0} \frac{r}{r} \end{aligned}$$

Veera Kallunki

tutkijatohtori, Tiedekeskuspedagogiikan tutkimusryhmä,
Opettajankoulutuslaitos, Helsingin yliopisto

SCIENTIX-PORTAALI – LUONNONTIETEIDEN OPETUS- MENETELMIÄ JA OPPIMATERIAALEJA

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- Mikä Scientix on?
- Miten Scientixiä voi hyödyntää opetuksessa?

Tiedekeskuspedagogiikka

- Informaalin oppimisen tutkimusta opettajankoulutuslaitoksella (<http://blogs.helsinki.fi/tiedekeskuspedagogiikka>)
- Yhteistyössä mm. Heureka ja muiden toimijoiden kanssa
- Tutkimushankkeet: The Fibonacci, Science Center to Go, Natural Europe, Pathway, Learning with Atlas at Cern, Open Science Resources, Kiertävät tiedenäyttelyt, Discover Natural Phenomena, 2Ways, Näkyvä

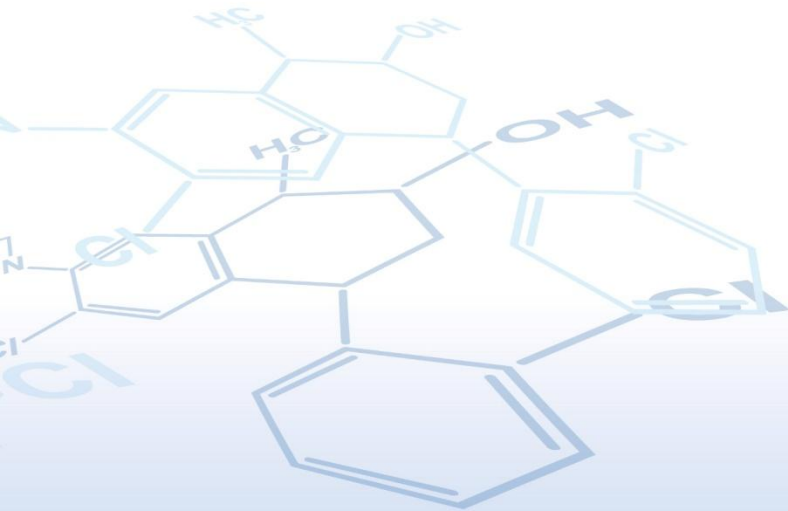


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The community for science education in Europe



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European science, maths and technology projects



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$$\begin{aligned} &\Rightarrow x^2 + px + q = 0 \\ &\rightarrow x_{1/2} = -\frac{p}{2} \pm \sqrt{\left(\frac{p}{2}\right)^2 - q} \\ f_r &= \frac{1}{2\pi} \cdot \frac{1}{\sqrt{LC}}; \omega = 2\pi f_r \\ -\frac{d}{dt} \int_A \vec{B} \cdot d\vec{A} &= \oint_L \vec{E}' \cdot d\vec{l} = - \int_A \left(\frac{\partial B}{\partial t} + \text{rot}(\dots) \right) \cdot d\vec{A} \\ \text{HCl} + \text{H}_2\text{O} &\rightleftharpoons \text{Cl}^- + \text{H}_3\text{O}^+ \\ v &= \frac{1}{6} \pi h (3e_1^2 + 3e_2^2 + L^2) \quad ?v = \int_{\varphi=0}^{2\pi} \int_{\rho=0}^{\dots} \dots \end{aligned}$$

Scientix facilitates dissemination and sharing of best practices in science education in Europe

- **Scientix portal: www.scientix.eu**
- **European Conference, 6-8 May 2011, Brussels**
- **Workshops for teachers and/or researchers in STEM education**



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The community for science education in Europe

Home

HOME

[PROJECTS](#)

[RESOURCES](#)

[NEWS](#)

[EVENTS](#)

[COMMUNITY](#)

[CONFERENCE](#)

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NEWS: Researchers' Night 2011: Face to Face with European Researchers

Discover research facilities, take part in experiments, watch demonstrations, and much more. This year's Researchers' Night will take place...

[Read more ...](#)



PROJECTS: ITEC – Designing the future classroom

ITEC (Innovative Technologies for an Engaging Classroom) aims to develop engaging scenarios for learning in the future classroom that can be...

[Read more ...](#)



TEACHING MATERIAL
Respiratory Hygiene – Super Sneezes – Junior



REPORTS
NANO DIALOGUE. Enhancing dialogue on nanotechnologies and nanosciences in society at the European level



TRAINING
Second Life in the classroom

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Mathematics Astronomy
Biology Geography

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TRANSLATION ON DEMAND

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September 2011



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English (en)



Home > Projects > Inspire – Innovative Science Pedagogy in Research and Education

BASIC INFORMATION

RESEARCH INFORMATION

TEACHER INFORMATION

HOME

PROJECTS

RESOURCES

NEWS

EVENTS

COMMUNITY

CONFERENCE

ABOUT

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INSPIRE – INNOVATIVE SCIENCE PEDAGOGY IN RESEARCH AND EDUCATION



The teaching materials produced for the purpose of this project were:

- Basic information pages for each of the 60 learning resources used during the project (12 Physics, 12 Chemistry, 12 Maths, 12 Biology and 12 IT/Informatics)

Each resource is available in five languages of the project: English, Spanish, Italian, French and German.

- Overview: this is a short summary of the resource.
- Suggestions: the resource is presented in the form of lesson plans. While these can be used directly in their classes as they are, they can also be adapted to suit the needs of the supply.
- Learning objectives: these are presented in a table, plus any additional objectives that may be relevant. These are available in English, Spanish (es) and Italian (it).
- Terms you need to know: these are presented in a table, with definitions, or even short videos, where available. These were not available for all resources, but they are available for the teachers and students who are using the resource as they progress through the project.
- Additional information: these are presented in a table, with links to the full terms of the Learning Resource. It also indicates whether the resource can be downloaded and/or modified for personal use, while providing the link to the full terms of the Learning Resource.

CONSERVATION OF ENERGY

Descriptor: Simulation, Computer, Physics, Energy

Age: 5-21 **Resource type:** wiki

Description: Overview and suggestions on how to integrate a simulation. [Read more...](#)

Creative Commons license:

Project: Inspire

View this in:

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Home ▶ Resources

HOME

PROJECTS

RESOURCES

NEWS

EVENTS

COMMUNITY

CONFERENCE

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Age range:

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Did you find an interesting learning resource in Scientix teaching materials? If it is not in your preferred language, you can use the translation on demand service to get it translated. [Read more...](#)

TEACHING MATERIALS

You searched for "[[keyword!teaching]]" the system found 235 result(s).

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Report

A STEM CELL DREAM: USING IPS CELLS TO TREAT DISEASE

On-demand translation of teaching materials

HOME

PROJECTS

RESOURCES

NEWS

EVENTS

COMMUNITY

CONFERENCE

ABOUT

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 Report

A STEM CELL DREAM: USING IPS CELLS TO TREAT DISEASE

Descriptor: Biology, Biotechnology, Cell, Disease

Age: >15 **Resource type:** simulation, assessment, open activity, presentation, tool

Creative Commons license: 

Project: Eurostemcell

Author: EuroStemCell EuroStemCell

[Back](#)

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DESCRIPTION

A dialogue based event about the real issues in stem cell research. Can iPS cells – ‘hot stuff’ for researchers as it is one of the latest major breakthroughs in stem cell science – be used to treat disease like Parkinson's? Can we develop safe treatments now? What does science say?

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Report

PALM PIPE MUSIC!

Descriptor: Technology, Physics, Music

Age: all Resource type: experiment activity

Description: With this simple and fun experiment you will learn how to. [Read more...](#)

Creative Commons license:

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Blogs & Scientix	0	0	0
Countries Subcategories: Belgium , France , France , Germany , Italy , More »	7	9	25
Projects Subcategories: COMPASS , Inspire , PRIMAS , Spice	8	4	4
Subjects Subcategories: Biology , Chemistry , Maths , Physics	4	4	5

Showing 5 results.



FEMINE TOPICS ENCOURAGE GIRLS TO STUDY SCIENCE

Published on: 03/03/2011

Country: No Country

Topic: Education

Target groups: education authorities, general public, teachers, trainee teachers

Url: <http://onlinelibrary.wiley.com/doi/10.1111/j.2044-8279.2011.02019.x/abstract>

Editor:

Girls are more interested in studying science subjects if they are presented through feminine topics, a recent study shows.

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SUMMARY IN ENGLISH

A recent study carried out by **Dr Sylvie Kerger** from the University of Luxembourg shows that girls have a significantly higher interest in science topics, such as IT, statistics and physics, when the scientific concepts are presented in the context of feminine topics. Based on Dr Kerger's research it seems that girls are more interested in social and real contexts such as decline of forests whereas boys clearly find mechanics and technology more compelling.

As a conclusion Dr Kerger presents that gender differences as well as individual differences in the level of interest in scientific topics may be taken into account by creating learning environments in which students could select the context in which a certain scientific concept is embedded.

The study is published online at the [British Journal of Educational Psychology](#).

FULL ARTICLE AVAILABLE IN

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August, 2011

AUG 27 **AUG 28** **SPICE Summer Academy CZECH REPUBLIC**

AUG 28 **SEP 01** **IHEST European Summer School FRANCE**

AUG 30 **AUG 31** **Photonics Explorer Workshop GERMANY**

Online courses:

<http://moodle.scientix.eu>

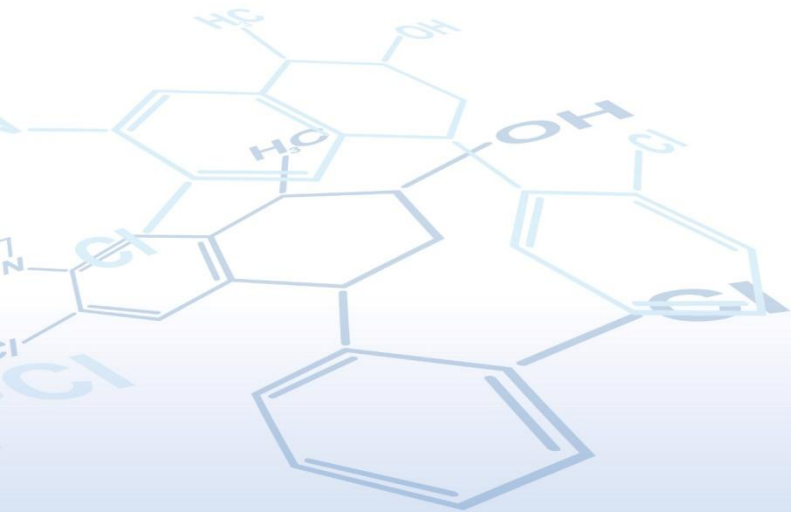
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- Twitter
- Html
- SecondLife
- Geogebra
- Xperimania
- Blogs
- Nanoyou

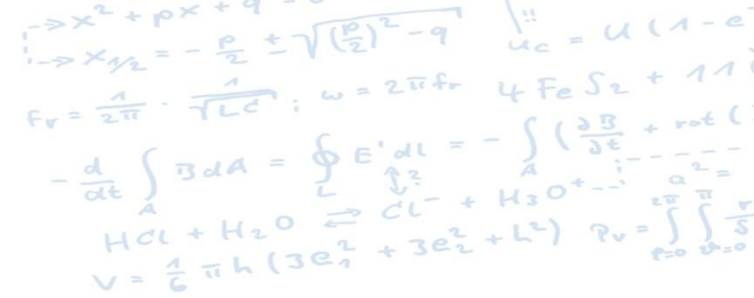




Coming soon...

- Scientix public profiles
- User generated content





Handwritten mathematical equations and formulas, including:
$$\Rightarrow x^2 + px + q = 0$$
$$\rightarrow x_{1/2} = -\frac{p}{2} \pm \sqrt{\left(\frac{p}{2}\right)^2 - q}$$
$$f_r = \frac{1}{2\pi} \cdot \frac{1}{\sqrt{LC}}; \omega = 2\pi f_r$$
$$-\frac{d}{dt} \int_A \mathbf{B} \cdot d\mathbf{A} = \oint_L \mathbf{E}' \cdot d\mathbf{l} = - \int_A \left(\frac{\partial \mathbf{B}}{\partial t} + \text{rot}(\dots) \right) \cdot d\mathbf{A}$$
$$HCl + H_2O \rightleftharpoons Cl^- + H_3O^+$$
$$v = \frac{1}{6} \pi h (3e_1^2 + 3e_2^2 + L^2) \quad ? v = \int_{\varphi=0}^{2\pi} \int_{r=0}^{\dots} \frac{r}{r^2} \dots$$

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Role



Expertise



APPLY FILTER



Eloïse Gérard

Country: Belgium

Organisation: European Schoolnet

Role: Education manager

Subject

Expertise: Project administration

FULL PROFILE

PUBLIC PROFILE



Personal information:

Description:

A brief description of professional interests etc.

Eloïse Gérard

E-mail: eloise.gerard@eun.org

Country: Belgium

Role: Education manager

Subjects:

Expertise: Project administration

Mother tongue: French

Other languages: English, Dutch

Activities:

Scientix, www.scientix.eu

Nanochannels,
www.nanochannels.eu

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Organisation:

European Schoolnet

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Sustainable energy plan



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SUSTAINABLE ENERGY PLAN

Descriptor: Geography, Geology, Ecology, Environment

Age: 12-16 **Resource type:** webpage

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Project: Etwinning

Author: eTwinning eTwinning

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DESCRIPTION

With this eTwinning kit pupils can make a sustainable energy plan for their partner school and learn about energy efficiency and renewable energies.

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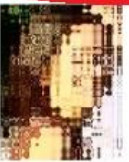
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FAVOURITED BY:



Eloïse Gérard

COMMENTS AND RATINGS:



Eloïse Gérard

A very useful tool!

Rating:



This resource is suitable for learners aged: 10 - 15

User generated content:

- Comments and rating of the Scientix resources

Scientix European Conference

6-8 May 2011, Brussels

Conference sessions:

- Science education research
- Science education – thinking outside the box
- EU projects for researchers iv. School collaboration
- Science & industry and schools
- Teachers associations
- Portals and resources
- Tools and experiments
- Science museums and amusement parks



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Scientix European Conference

6-8 May 2011, Brussels

Conclusions:

- Key elements of a good science education system: school curriculum, pedagogy and assessment [...however...] the quality of an education system depends ultimately on the quality of its teachers.
- All presentations on innovative approaches to science education --> inquiry-based approach (facts and figures + process of producing scientific knowledge). Practical experience → learning by doing + first-hand contact with real research.
- To fully exploit the concept of inquiry based learning, teachers have to be properly trained. Teachers should combine excellent knowledge of their subject with excellent pedagogical and assessment skills.
- Take on board more teachers, researchers and science communicators to overcome fragmentation and promote best practices across Europe.

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HOME

PROJECTS

RESOURCES

NEWS

EVENTS

COMMUNITY

CONFERENCE

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The role of science education in tackling current societal problems, the EU's Europe 2020 strategy, cross-border collaboration, school curricula, assessment models, learning resource repositories, teacher training: these are some of the topics – a snapshot – of what was discussed at the Scientix European Conference, on 6–8 May 2011 in Brussels.

The theme recurring throughout the conference, however, was the paramount part teachers play in changing the landscape of science education. As Sir John Holman, the conference key-note speaker, put it: no education system can be better than the people in it.

We would like to thank the teachers and other stakeholders who attended the conference, keen to share their experience, present their projects and start new collaborations. The positive and committed attitude of all of them shows that we are moving in the right direction towards a truly European science education community.

The Conference summary

- ▶ [The conference programme](#) (pdf)
- ▶ [Poster session](#)
- ▶ [Photos](#) (Flickr)
- ▶ [Conference presentations online](#)

Scientix workshops

Present, share, highlight and inspire good practices, linked to the specific content offered by Scientix and take into account the latest development in the field of science and maths education and the results produced by EU funded projects.

- GIREP 2010, Reims, France
- Eminent 2010, Copenhagen, Denmark
- eTwinning Conference 2011, Budapest, Hungary
- Pathway summer school 2011, Heraklion, Crete
- SPICE summer academy, Prague, Czech Republic



More information about Scientix

- European Schoolnet Science Programme Manager / Scientix project manager: Dr Agueda Gras-Velazquez, agueda.gras@eun.org
- European Schoolnet Web Editor / Scientix portal content manager: Přemysl Velek, premysl.velek@eun.org
- Scientix Project officer, DG Research, European Commission: Peter Fabian-Hajek, peter.fabian-hajek@ec.europa.eu

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Network of 31 Ministries of Education in Europe:

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- Promote the European dimension in schools and education Improve and raise the quality of education in Europe

Mission: To improve and raise the quality of education in Europe

Scientix-portaali luonnontieteiden opetuksen tukena

- Tags
- Projects Topic: biology
 - e-Bug
 - Learn2sea: Learning to value and protect the marine environment → ecosystems → Sea on Screen
- Resources → keywords: biology, language: finnish → PlayDecide Kit: Stem Cells → View this in: FI
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- Moodle → biology → SecondLife in the classroom
- Twitter