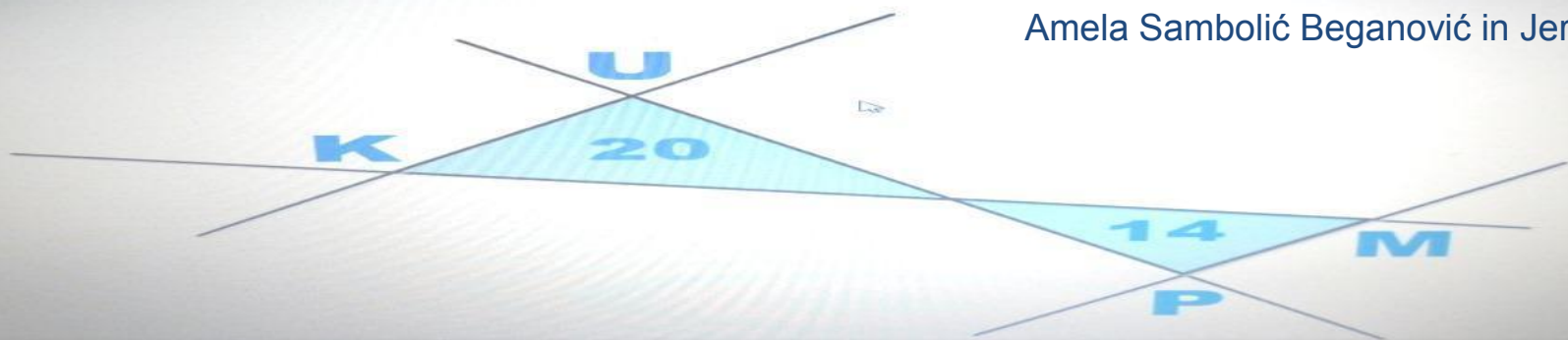




S portalom Scinetix do interaktivnih gradiv – kakšne si želimo?

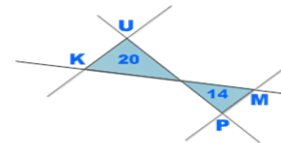
Amela Sambolić Beganović in Jerneja Bone



 **Zavod Republike Slovenije za šolstvo**
The National Education Institute Slovenia



The work presented in this document / workshop is supported by the European Commission's FP7 programme – project Scientix 2 (Grant agreement N. 337250), coordinated by European Schoolnet (EUN). The content of the document/workshop is the sole responsibility of the organizer and it does not represent the opinion of the European Commission nor EUN, and neither the Commission nor EUN are responsible for any use that might be made of information contained



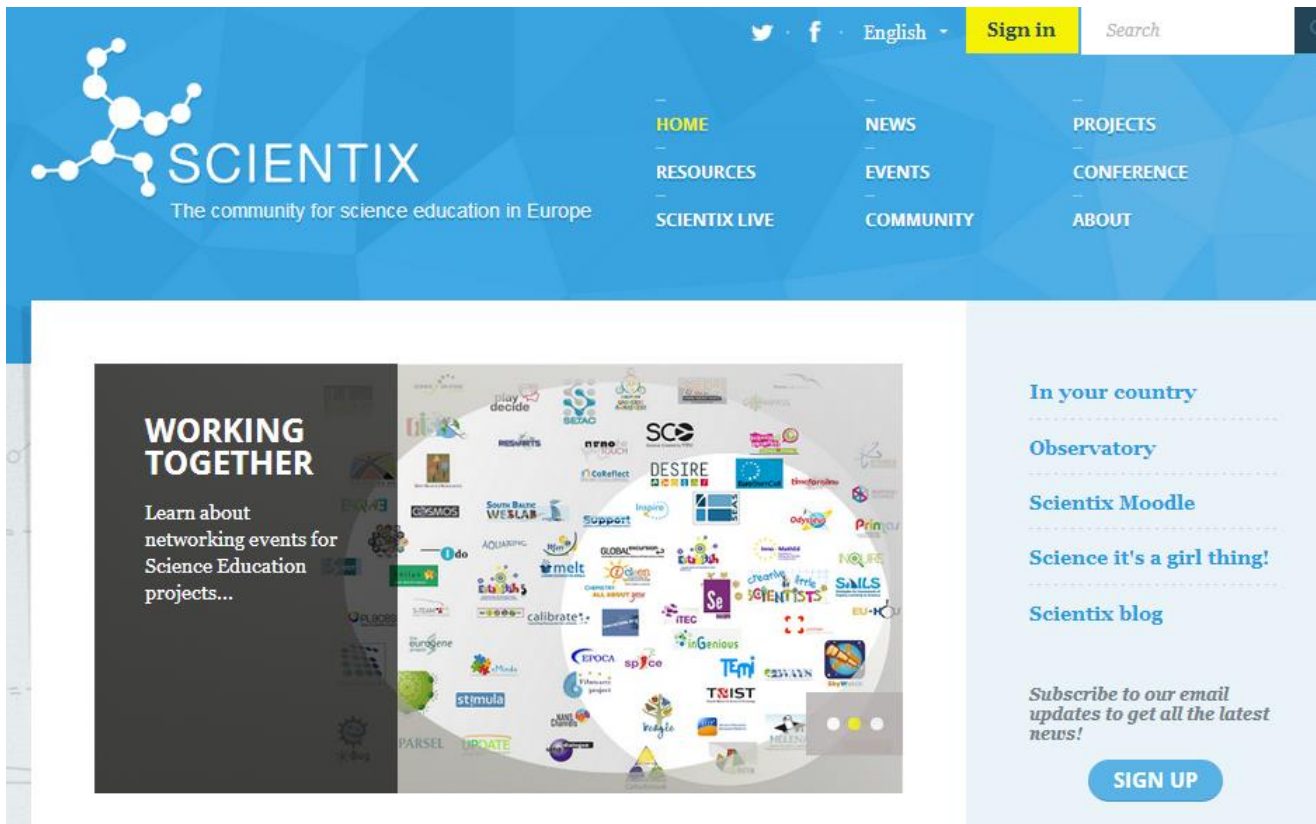
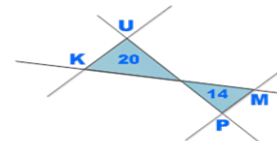
Časovno - vsebinski potek delavnice

90 min

1. del: Raziščimo in se aktivirajmo na SCX portalu
2. del: Kakšna i-gradiva si želimo?
3. del: Gradiva COMPASS in MASCIL pod drobnogledom

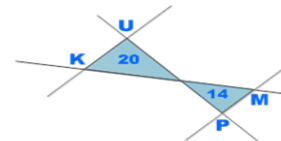
1. del: Poznate Scientix?

<http://www.scientix.eu/>



The screenshot shows the homepage of the Scientix website. At the top left is the logo, a stylized molecular structure with the word "SCIENTIX" and the tagline "The community for science education in Europe". To the right of the logo are navigation links: HOME, RESOURCES, SCIENTIX LIVE, NEWS, EVENTS, COMMUNITY, PROJECTS, CONFERENCE, and ABOUT. There are also social media icons for Twitter and Facebook, a language selector set to "English", a "Sign in" button, and a search bar. Below the navigation is a large banner with a dark background on the left and a light blue background on the right. The dark background contains the text "WORKING TOGETHER" and "Learn about networking events for Science Education projects...". The light blue background contains a grid of logos for various science education projects and organizations, including "play decide", "BESAC", "SCS", "DESIRE", "COLECT", "npro", "Some Basic WESLAB", "Support", "AQUARING", "melt", "GLOBE", "Creative in Art", "SAILS", "calibrate", "EIROCA", "spJce", "TEM", "stimula", "PARSEL", "UPDATE", "GENIUS", "TRIST", "Se", "SCIENTISTS", "EU-K", "GENIUS", "TRIST", "Se", "SCIENTISTS", "EU-K", "GENIUS", "TRIST", "Se", "SCIENTISTS", "EU-K". On the right side of the banner, there are four links: "In your country", "Observatory", "Scientix Moodle", and "Science it's a girl thing!". Below these links is a "Scientix blog" link and a "Subscribe to our email updates to get all the latest news!" message with a "SIGN UP" button.

Kaj nam portal nudi?



Registracija v portal

FB

Twitter

Časopis, obvestila

English ▾

Sign in

Search



Scientix

@scientix_eu



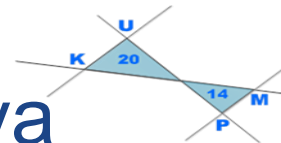
Science Teachers in
Europe: Join the
discussion!



SCIENTIX NEWSLETTER

SCIENTIX DIGEST

Raziščimo portal: projekti in gradiva



Projekti

Gradiva

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

PROJECTS

Filter by:

Country ▼

Topic ▼

Target groups ▼

Funding ▼

Starts after ▼

Ends before ▼

Projects looking for teachers

Ongoing projects

[Home](#) > [Resources](#)

RESOURCE REPOSITORY

Find resources by keyword

GO 

ADVANCED SEARCH

Subject

Min age

Max age

Type

Languages

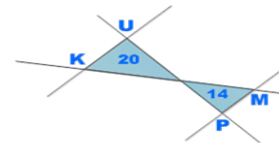
TEACHING MATERIALS

REPORTS LIBRARY

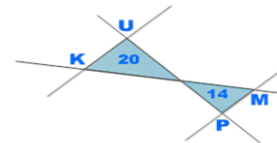
TRAINING COURSES

LRE MATERIALS

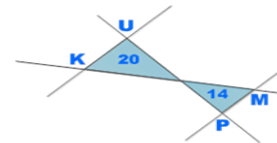
Zaključek 1. dela



2. del: Gradiva - kakšna si želimo?



Interaktivnost gradiv v luči treh prispodob učenja



Pridobivanje informacij

Učeči je le pasivni sprejemnik informacij.

Učitelj ima vlogo razdeljevalca informacij.

Gradivo zagotavlja le dostop do informacij med učenjem.

Krepitev odziva - Povratna informacija

Učeči je pasivni sprejemnik "nagrada in kazni".

Učitelj praviloma ima vlogo podeljevalca nagrad oz. kazni

Vloga gradiva je pridobiti učenčev odziv in zagotoviti povratno informacijo.

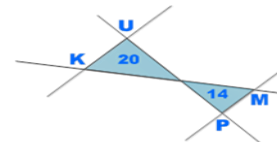
Konstrukcija znanja

Učeči se aktivno oblikuje pomene in gradi znanje.

Učitelje je usmerjevalec spoznavnih/miselnih procesov,

Gradivo usmerja učenčevo kognitivno procesiranje med učenjem.

3 x primer



<http://url.sio.si/dNW>

<http://url.sio.si/dNZ>

<http://url.sio.si/dNY>

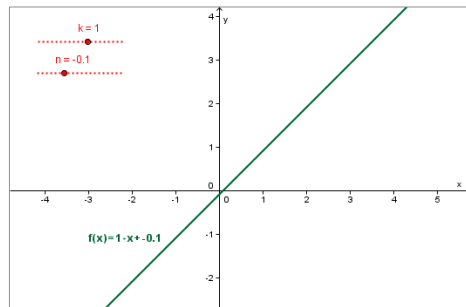
Linearna funkcija - teorija

Definicija linearne funkcije

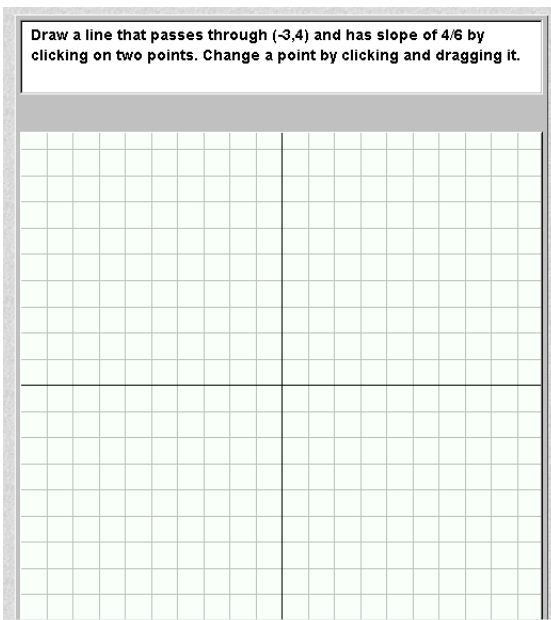
Linearna funkcija $f: \mathbb{R} \rightarrow \mathbb{R}$ je definirana s predpisom

$$f(x) = kx + n,$$

kjer sta k in n realni števili. Število k imenujemo smerni koeficient, število n pa začetna vrednost linearne funkcije. Smerni koeficient funkcije določa strmino grafa funkcije. Graf linearne funkcije je premica.



Draw a line that passes through $(-3,4)$ and has slope of $4/6$ by clicking on two points. Change a point by clicking and dragging it.



Linearna funkcija | Linearna funkcija | Linearna funkcija

LINEARNA FUNKCIJA

Sosedje večkrat med letom napolnijo bazen višine 120 cm s svežo vodo. Razišči, kako dolgo to traja pri različnih podatkih: začetna količina vode se giblje med 10 in 80 cm, dodatek vode pa od 4 do 12 cm/minuto. S pomočjo gumba izveš, kdaj je bazen poln.



Koliko minut potrebujemo za napolnitev, če je začetna višina 30 cm in se gladina vode vsako minuto zviša za 6 cm?

Rešitev



3. del: Predstavimo Compass & Mascil



COMMON PROBLEM SOLVING
STRATEGIES AS LINKS
BETWEEN MATHEMATICS
AND SCIENCE

<http://www.compass-project.eu/>



mathematics and science for life

Raziščimo Compass & Mascil

Compass

+

-

Mascil

+

-



Solar Car

- What are the main sources of air pollution?
- What is the impact of transport emissions on air pollution and the natural environment?
- What can we do to reduce air pollution coming from transport?
- To what extent can emissions be reduced if solar powered cars instead of petrol-powered cars are used (e.g. in a neighbourhood, in a town, in a country, in EU, etc.)?

Age of students 11-14



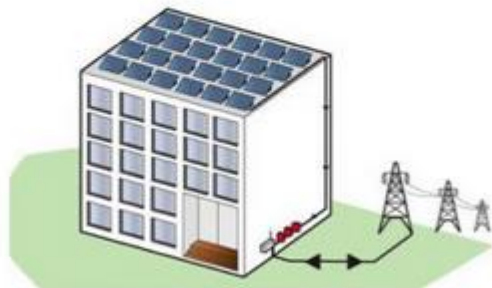
Water quality

- How can the purity of swimming water be tested?
- What exactly is the Blue Flag award?
- How reliable are the measurements and the criteria for the Blue Flag award?
- What is the status of the quality of fresh and salt water for swimming in the Netherlands?
- Are there noticeable differences in water quality between EU countries?

Age of students 14-16

Solar cells

Connection of Mathematics with the workplace of Social Scientists



Water quality: Swim without risk?

Students will investigate how water quality can be determined



I-gradiva Compass & Mascil in UN

Compass in UN

Mascil in UN

Zaključek

Uporablajte portal Scientix



The work presented in this document / workshop is supported by the European Commission's FP7 programme – project Scientix 2 (Grant agreement N. 337250), coordinated by European Schoolnet (EUN). The content of the document/workshop is the sole responsibility of the organizer and it does not represent the opinion of the European Commission nor EUN, and neither the Commission nor EUN are responsible for any use that might be made of information contained