

KLIMATSKE PROMJENE I ZAŠTITA OKOLIŠA KROZ ETWINNING PROJEKTE ZA PREDŠKOLSKU DOB I UČENIKE STRUKOVNIH ŠKOLA

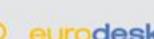
Ana Marketin-Sedlar, eTwinning ambasador
prof. mentor strojarske skupine predmeta

Andreja Sedlar, eTwinning ambasador
odgojiteljica savjetnica
dubitnica nagrade COMET

Varaždin, 2020.



AGENCIJA ZA
MOBILNOST I
PROGRAME EU



Sadržaj

- Upoznajmo se
- Klimatske promjene od vrtića do struke
- Zabavimo se
- Klimatske promjene od struke do vrtića
- Zaključak



Tko smo mi?



Andreja Sedlar



odgajateljica savjetnica
eTwinning ambasador
dubitnica nagrade COMET
DV Varaždin



Ana Marketin-Sedlar



profesor mentor strojarske
skupine predmeta
eTwinning ambasador
Strojarska i prometna škola



Posjetite stranicu:

https://padlet.com/sedlar_andreja/m8eyl6jth9dr

Napišite tko ste Vi, odakle dolazite te koju ustanovu predstavljate.

Klimatske promjene i zaštita okoliša

Tko smo mi?

- Dječji vrtić Varaždin,
odgojno-obrazovna
skupina Leptirići
- Djeca s navršenih 5 do
navršenih 6 godina



Erasmus+



Obzor 2020.



EUROPSKE
SNAGE
SOLIDARNOSTI



CEEPUS



eCVET



eTwinning



euraxess

eurodesk
Hrvatska



europass



Čime se bavimo i što volimo?

- Provodimo puno vremena na otvorenom (svakodnevno!)
- Brinemo o našem malom vrtu (za koji smo dobili nagradu MZOS-a te FZO 2018.)
- U našem dvorištu imamo kompostište u koje odlažemo ostatke
- Igramo se prirodnim materijalima



...i to je samo početak!

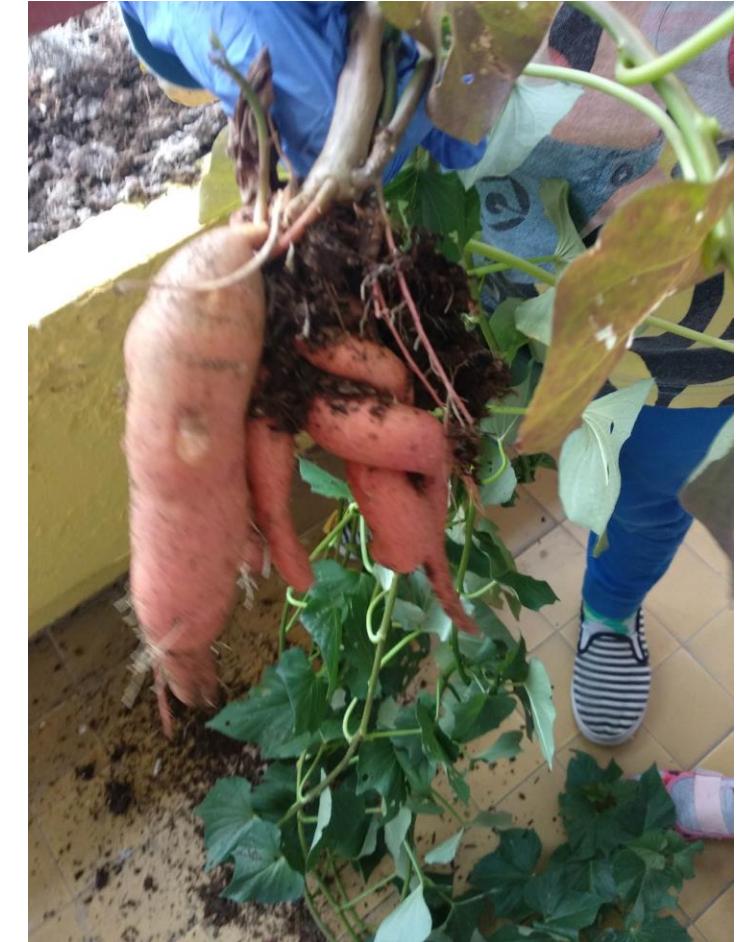


Leptirići su iskusni eTwinneri:



- 2020. sudjelovali su u tri eTwinning projekta:
 - Mala hrvatska kuharica (NQL)
 - Play and Learn in Nature (NQL i EQL)
 - Stay Home!!!! Bravo Apolonija!

Vrtlarenje na balkonu je zabavno!



Leptirići i recikliraju (ne samo papir)



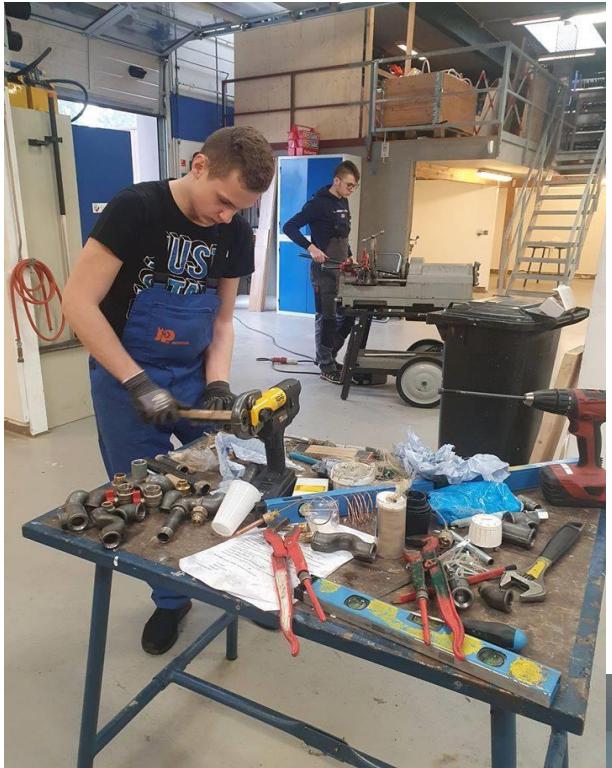
Što još?

- Izrađujemo sapun
- Sadimo biljke i u zatvorenom prostoru (promatranje)
- Božićno drvce izrađujemo od žice i papira
- Brinemo o dvorištu
- Pribavljamo liste za naše kompostište...

Zašto su sve te aktivnosti važne?

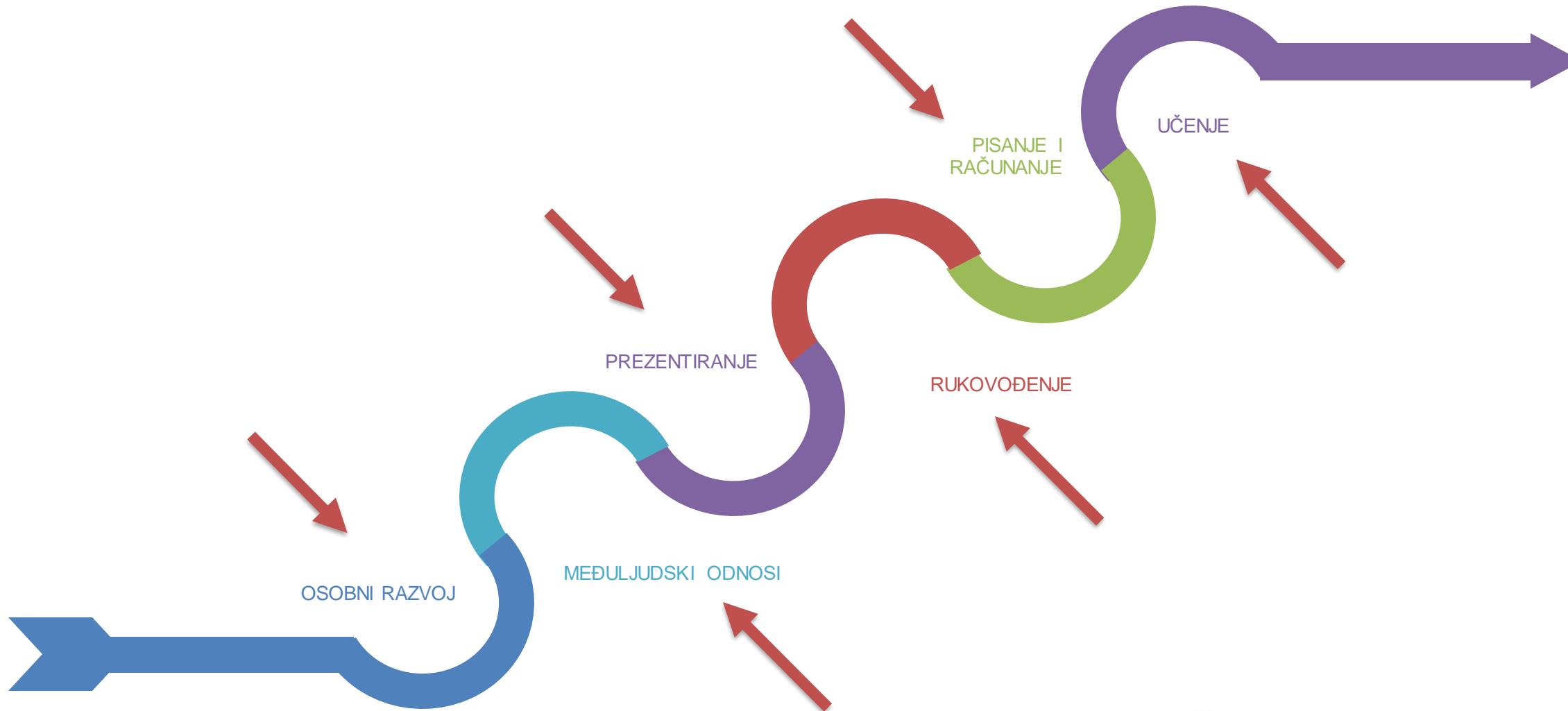
- Prve tri godine su najvažnije godine u životu
- Moramo Zemlju ostaviti u stanju u kakvom smo ju zatekli
- Moramo pronaći najbolje načine očuvanja prirode-već u vrtiću
- ...i sve te aktivnosti trebaju biti zabavne djeci!

Strukovna škola



Strukovna škola





Digitalna, informacijska i
medijska pismenost

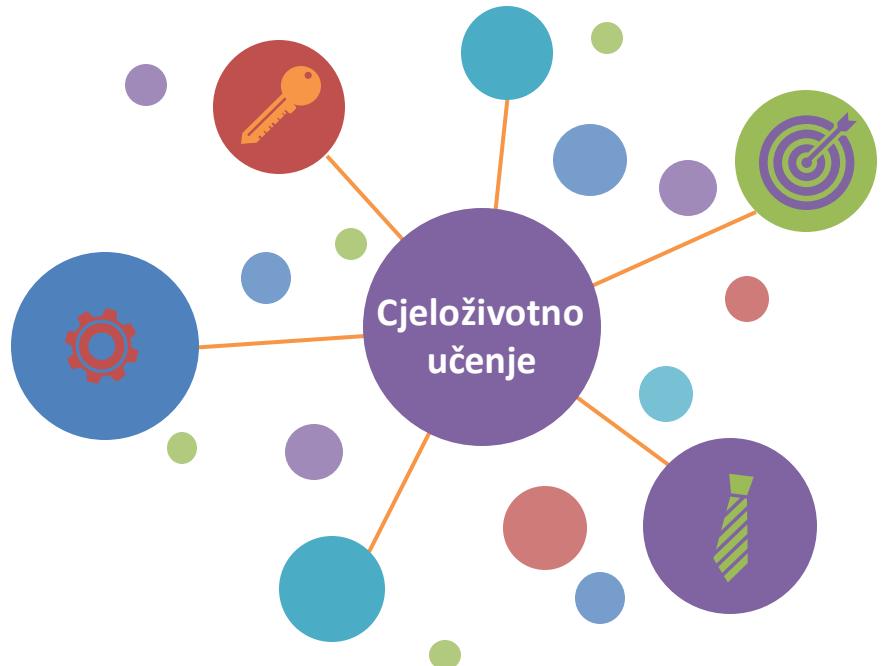
Suradnja

Komunikacija



Je li to sve? Imenujte jednu vještinu važnu za poslove budućnosti
<https://answergarden.ch/1527749>

Cjeloživotno učenje



Cjeloživotno učenje podrazumijeva:

- Stjecanje i osuvremenjivanje svih vrsta sposobnosti, interesa, znanja i kvalifikacija od predškole do razdoblja nakon umirovljenja.
- Promicanje razvoja znanja i sposobnosti koje će omogućiti prilagodbu »društvu znanja« i aktivnom sudjelovanju u svim sferama društvenog i ekonomskog života te na taj način utjecanje na vlastitu budućnost.
- Uvažavanje svih oblika učenja.



Pedagoška inovativnost



Integriranost u kurikulum



Uporaba tehnologije



Suradnja



Rezultati, utjecaj,
dokumentiranje



Da biste riješili igru, pristupite sljedećoj poveznici:

<https://view.genial.ly/5fa6dbecdaa85b0d1a80b11e/game-breakout-igra-etwinning>



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The screenshot shows the eTwinning TwinSpace platform. At the top, there's a navigation bar with links for 'POČETNA STRANICA', 'STRANICE', 'MATERIJALI', 'FORUM', 'MREŽNI SASTANI', and 'ČLANOVI'. On the right side of the header are icons for 'Podrška' (Support), a user profile, a bell, and an envelope. Below the header, there's a large teal banner with the text 'How do Photovoltaics work ?' in white. Underneath the banner, there's a dark blue box containing the title 'How do Photovoltaics work?' and the author 'By Nikola Vlaovic' with the date 'May 16, 2017'. To the right of this box is a blue button with a white play icon and the text 'Present'. At the bottom of the dark blue box, there's a small link 'Prezis, videos, scratch ...' with a video camera icon.

How do Photovoltaics work ?

How do Photovoltaics work? NV By Nikola Vlaovic

May 16, 2017

▶ Present

Prezis, videos, scratch ...

Upoznati učenike s fotonaponskim
sistavima.

From photons 2 electrons

Osvijestiti učenike o značaju
solarne energije.

The screenshot shows the eTwinning TwinSpace platform. At the top, there's a navigation bar with links for 'POČETNA STRANICA', 'STRANICE', 'MATERIJALI', 'FORUM', 'MREŽNI SASTANI', and 'ČLANOVI'. On the right side of the header are icons for 'Podrška' (Support), a user profile, a bell, and an envelope. Below the header, there's a large teal banner with the text 'Stranice' in white. Underneath the banner, there's a dark blue box containing the title 'How do Photovoltaics work ?' and the author 'Students' solar posters (Varaždin, Croatia)'. To the right of this box is a blue button with a white play icon and the text 'Brainstorm'. At the bottom of the dark blue box, there's a small link 'https://www.slideshare.net/BozidarRakonjac/solarne-saksije-copy' with a link icon.

Stranice

How do Photovoltaics work ?
Students' solar posters (Varaždin, Croatia)
Games related to Solar Energy
L Students posters in Varaždin
Brainstorm
Last activity on Thinglink
Doodle about video conferences in final week of the project
Live meeting 04th of June 2017.
The evaluation of our project
Georgia

Brainstorm

<https://www.slideshare.net/BozidarRakonjac/solarne-saksije-copy>

The young inventors

Sneakers with solar panels



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Obzor 2020.



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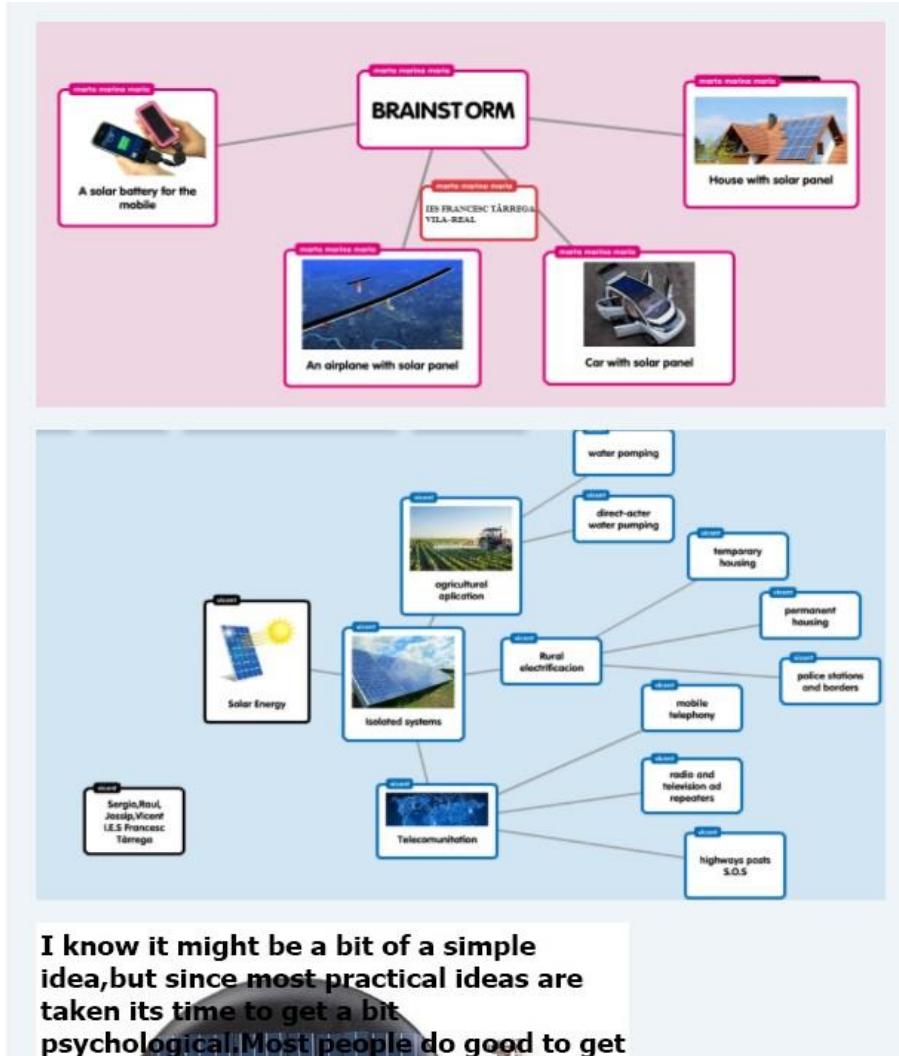


europass



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From photons 2 electrons



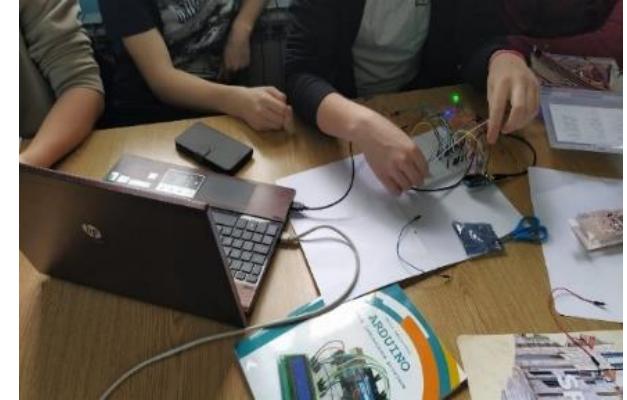
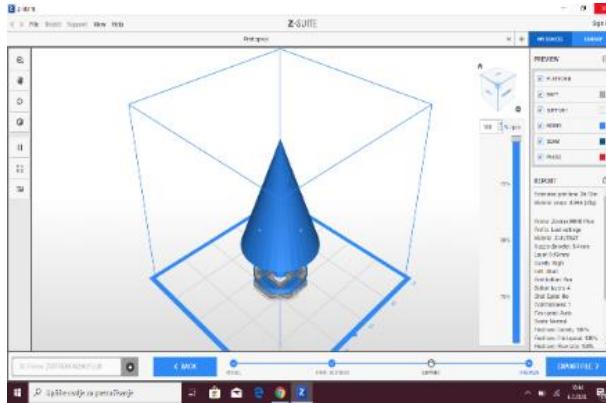
The young inventors

Trash can with solar panel

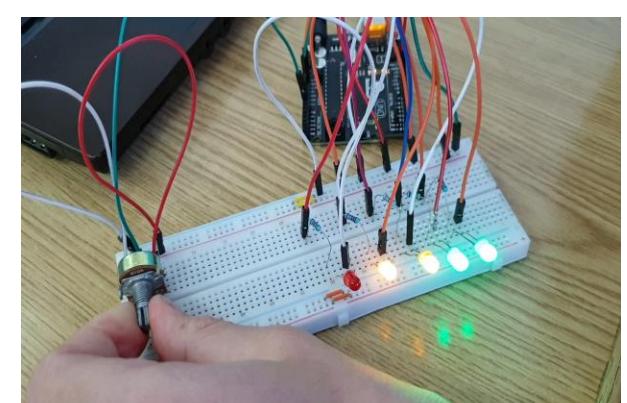
My idea is to make trash can that use solar energy, so when people want to throw something into it they do not have to get dirty hands because there will be sensor that will open hole. For night we can put small electric motor with batteries for power supply .



MEChanical Engineering for Climate



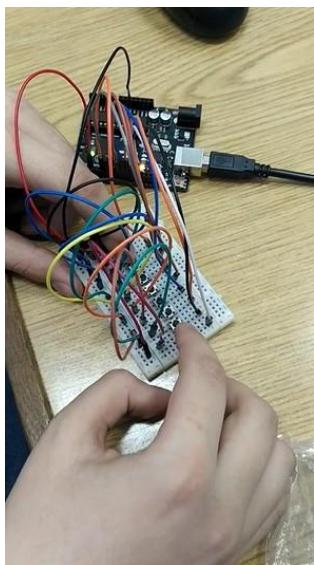
Cilj projekta bio je pisati kodove u Arduinu, spajati senzore i druge elemente, unaprijediti timski rad u međunarodnom okruženju.



MEChanical Engineering for Climate



<https://vimeo.com/389730786>



<https://vimeo.com/385217986>



Where there's a will there's a way

Primaran cilj projekta je osvijestiti učenike o važnosti korištenja obnovljivih izvora energije te racionalnog korištenja energije.

eTwinning TwinSpace

Support   

HOME | PAGES | MATERIALS | FORUM | ONLINE MEETINGS | MEMBERS

Pages

A3 Presentations of our school, city and country.
A3 Presentations of our school, city and country.
> A4 Sustainable habits survey
A5 SLOGAN
A5.1 SLOGAN

- SLOGAN - SWEDEN
- SLOGAN - Serbia
- SLOGAN Turkey
- SLOGAN Turkey - Banaz
- SLOGAN Italy
- SLOGAN Croatia
- TIURKFY RANA7 SNSAI

A4 Sustainable habits survey

A new survey from Vila-real. Well done! Yago, Vicent and Miguel

Pollution
Habits for less pollution

How do you clean yourself?
 In the shower
 In the bath

Do you reuse the water bottles?
 Yes

eTwinning TwinSpace

Support   

HOME | PAGES | MATERIALS | FORUM | ONLINE MEETINGS | MEMBERS

Pages

Some instructions about the project
Welcome!
Project plan
web 2.0 tools tutorials

- Bitable
- Padlet
- Prezi
- Microsoft Research AutoCollage 2013
- LearningApps
- Thinglink
- Doodle
- Voki
- Scratch

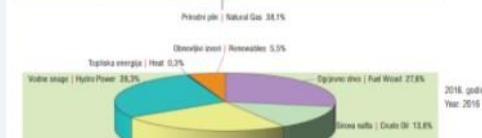
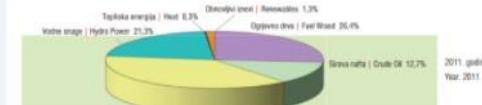
Energy production in Croatia

Electrical energy in Croatia is produced from unrenewable and renewable sources. Most of renewable sources of energy is produced in south Croatia where we have lots of solar power plants and wind power plants. We also produce electrical energy from hydro power. In the next tables you can see that % of renewable sources is increasing.

Table 2.2.1. Proizvodnja primarne energije | Primary energy production

	2001.	2002.	2003.	2004.	2005.	2006.	2007./08.	%
Ogrevanje drva i lesnine	59.01	60.39	61.45	57.37	64.18	64.15	-0.1	1.7
Silovna nafte	28.37	25.62	25.71	25.38	28.82	31.47	10.0	2.1
Prirodni plin	85.62	88.19	93.11	93.52	91.81	97.32	-6.6	-7.3
Vodne snage / Hydro Power	47.58	47.32	49.92	48.89	61.63	63.63	6.0	8.6
Toplofика energija / Heat	0.60	0.61	0.63	0.32	0.62	0.66	6.0	2.1
Obnovljivi izvori / Renewable	2.85	5.52	7.55	10.40	10.79	12.68	17.5	34.8
CEPDP TOTAL	223.44	208.85	243.37	243.78	227.48	232.11	2.0	0.8

Link | Source: CEPDP



Where there's a will there's a way

Carbon footprint calculator <https://www.carbonfootprint.com/measure.html>

VILA-REAL, SPAIN
Teacher: Ana Claramunt, Irene Sanchis, Joan Ferrer, Pablo Rochera

A7_RESULTS. CARBON FOOTPRINT IN SPAIN
Teacher: Ana Claramunt CARE

GROUP 3AB GROUP 3CE GROUP 3PMAR G

TOTAL CONSUMPTION SPAIN_VILA-REAL

Sector	Percentage
HOUSE	23.8%
FLIGHTS	18.6%
CARS	12.4%
MOTORBIKE	6.6%
BUS & RAIL	2.4%
SECONDARY	26.4%

LITHUANIA, KAUNAS
Teacher: Jūratė Balandienė

ITALY
<https://docs.google.com/spreadsheets/d/1vVMzxuoXu-BxFd44jqPeqYRcjL5j6XPc2vqEhxj0Jo/edit?usp=sharing>

Environmental Impact from Carbon Footprint (all GHGs)- Romania

Sector	Carbon Footprint (all GHGs) Footprint Total (Kilotonnes)
Housing	~28,000
Transport	~22,000
Food	~25,000
Goods	~12,000
Services	~8,000
Other	~20,000

https://docs.google.com/spreadsheets/d/1uosloWTPuCP1S3vvgbTLmOrairMe_PtF8cT7dhOBM/edit?ts=5b1d3fc#gid=0

Carbon Footprint from Sweden:

eTwinning TwinSpace

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Podrška

A7 Energy bills & Carbon footprint

Energy bills & Carbon footprint



CARBON FOOTPRINT - Serbia

Boundary	Total



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HOME | PAGES | MATERIALS | FORUM | ONLINE MEETINGS | MEMBERS

Pages

Some instructions about the project

Welcome !

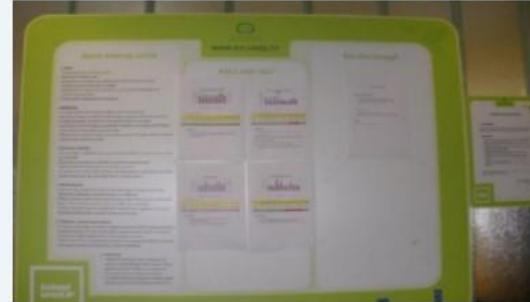
Project plan

web 2.0 tools tutorials

- Biteable
- Padlet
- Prezi
- Microsoft Research AutoCollage 2013
- LearningApps
- Thinglink
- Doodle
- Voki
- Scratch

Energy efficiency in Croatia

In our School we have "Green office". Its main goal is to educate students about energy savings. So, students and I putted most important conclusions from this project as well as most important facts on the board.



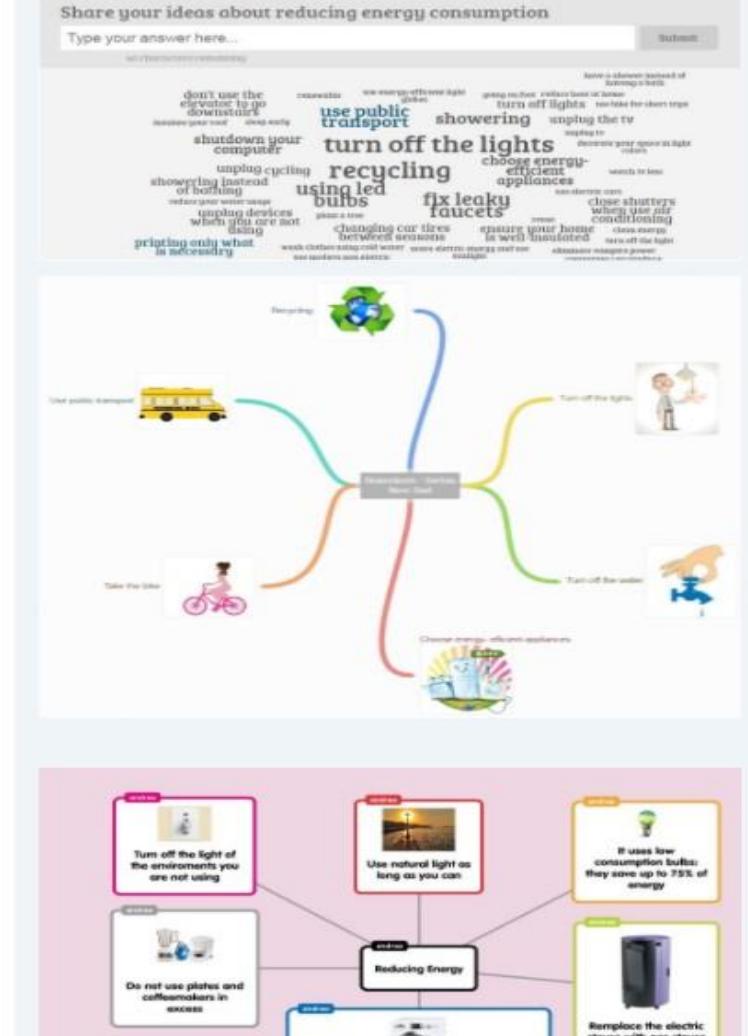
 Saving energy for the future!

We should save electrical energy by:

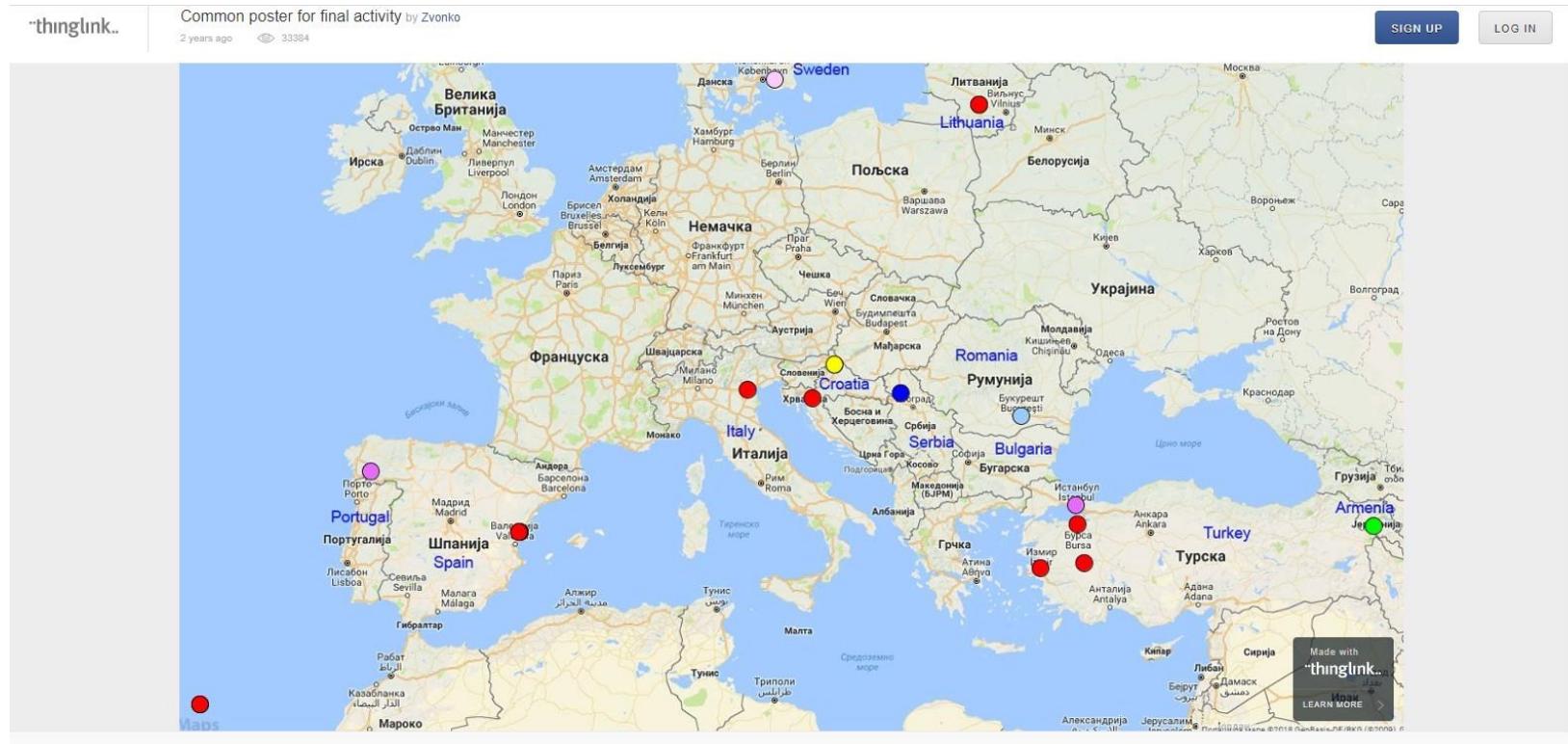
- using LED light bulbs
- switching off and unplugging devices
- turning off the lights by leaving the room
- closing the refrigerators door.

Where there's a will there's a way

given word with a cursor, we can see the number of people who proposed it. I wish you lots of fun!



Where there's a will there's a way



[https://www.thinklink.com/scene/1052544498329976833?
buttonSource=viewLimits](https://www.thinklink.com/scene/1052544498329976833?buttonSource=viewLimits)



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If climate can change, why can't we

genially

GROUP 21

CAUSES AND CONSEQUENCES OF CLIMATE CHANGE.

Climate change is the global phenomenon of climate transformation characterized by the changes in the usual climate of the planet (regarding temperature, precipitation, and wind) that are especially caused by human activities. As a result of unbalancing the weather of Earth, the sustainability of the planet's ecosystems is under threat, as well as the future of humankind's lives and economy.

Climate change affects all regions around the world. Polar ice shields are melting and the sea is rising. In some regions extreme weather events and rainfall are becoming more common while others are experiencing more extreme heat waves and droughts.

These impacts are expected to intensify in the coming decades.

Edu Bratčić
Miran Šparnić

GROUP 22

CLIMATE CHANGE

Group 22
Kevin y Lucas 3D

Koje su sve negativne posljedice klimatskih promjena? Kako ih možemo smanjiti ili spriječiti? Promjena počinje od mene, od nas.

eTwinning TwinSpace

POČETNA STRANICA | STRANICE | MATERIJALI | FORUM | MREŽNI SASTANI | ČLANOVI

Podrška

- Stranice**
- A5. LOGO CONTEST
 - A6. CAUSES AND CONSEQUENCES OF CLIMATE CHANGE.
 - > A7. What would you do, to reduce the effects of climate change
 - A8. CREATING GAMES
 - A9. WRITING A COMMON BOOK
 - A10. EVALUATION AND DISSEMINATION
 - L PROJECT DISSEMINATION IN OUR SCHOOLS
 - A11. Conclusions. Final conference

A7. What would you do, to reduce the effects of climate change

GROUP 1

How to reduce the effect of climate change

Serbia:
Stefan Starcevic E45
Dusan Paripovic E45

Vincent and Gerard

REDUCE EFFECTS OF CLIMATE CHANGE

If climate can change, why can't we



The screenshot shows a digital learning application interface. At the top, there's a grid of images related to climate change, such as a volcano, a sun, a globe, and a landscape. Below this, a question is displayed: "Which gas has the worst impact on climate changes?". Three options are listed: "methane" (with a checked checkbox), "nitrogen" (with an unchecked checkbox), and "oxygen" (with an unchecked checkbox). Further down, there's a section titled "GROUP 20" with contributions from "Mohammed Es Slimmi, Vila-real, Spain". One contribution is a "Climate change" card with the following text:
Climate change is a problem.
Hafecla has all the [redacted]
The biggest cause is [redacted]
You can [redacted] the Poles
You can [redacted] animals
[redacted] can be drastically changed
Animals can be [redacted]
Companies should change their [redacted]

<https://view.genial.ly/5e1ec0f69e64014072a390b5>

<https://learningapps.org/display?v=pk8u2jpg320>



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MOBILNOST I
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If climate can change, why can't we

If climate can change...

NEWS

eTwinning project

April 2020



About us
Causes and consequences
of climate change. Let's reduce its effects!

CLIMATE CHANGE
YOU'LL DIE OF OLD AGE.
WE'LL DIE OF CLIMATE CHANGE

... why can't we

<https://madmagz.com/magazine/1754593#/>

A10. EVALUATION AND DISSEMINATION



Dear eTwinners, we are finishing our project and it's time for you to leave your opinion on the project.

Here you are some questions to help you write your post:

1. Why do you think it's important learning about climate change?
2. What have you learned in this project?
3. What activity did you enjoy the most? And which was the most difficult?

Outdoor classroom day



Outdoor classroom day





AGENCIJA ZA
MOBILNOST I
PROGRAME EU

eTwinning Quality Label

Ana Marketin-Sedlar Strojarska i prometna škola, Hrvatska

nagrađen oznakom kvalitete
Za projekt:

Where there's a will, there's a
way

05.10.2018

European Quality Label

Ana Marketin-Sedlar Strojarska i prometna škola, Hrvatska
is awarded with the European Quality Label

Za projekt:

Where there's a will, there's a way

22.10.2018

A. Gladović
Antonija Gladović
Nacionalna služba za podršku
Hrvatska


Marco Durando
Central Support Service



Oznake kvalitete

eTwinning Quality Label

Ana Marketin-Sedlar Strojarska i prometna škola, Hrvatska

nagrađen oznakom kvalitete
Za projekt:

Outdoor clasroom day

20.09.2019

eTwinning Quality Label

Ana Marketin-Sedlar
Strojarska i prometna škola, Hrvatska

nagrađen oznakom kvalitete
Za projekt:

If climate can change, why can't we

23.09.2020

A. Gladović
Antonija Gladović
Nacionalna služba za podršku
Hrvatska



Koja je najbolja početna točka u vrtiću?

- Djeca trebaju biti uključena u sve aktivnosti
- Važno je razgovarati o svemu što ih svakodnevno inspirira
- Pretraživanje interneta
- „Od lista do komposta“



- Recikliranje starih paleta
- Roditelji su nam „Partners in crime ☺” !
- Pisati se ne mora samo na papiru!



Djeca su bila uključena u sve faze izrade kompostišta.



- Poticaj osjećaja samopouzdanosti i samouvjerenosti
- Motivacija je snažnija kada su njihove ideje prihvaćene
- Slijedećeg proljeća koristili smo kompost u našem malom vrtu i tako ćemo i slijedeće godine (krug života)



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Proljeće je vrijeme u kojem smo najaktivniji na vrtu



Nema lošeg vremena!



A što je s web alatima?



Nakon povratka u vrtić, djeca imaju mogućnost podsjetit se na svoje aktivnosti na otvorenom:

<https://www.jigsawplanet.com/?rc=play&pid=3278b4bc899f>



Zapazili smo pčelice u našem dvorištu, nacrtali ih i napravili malu izložbu (lockdown)

[http://linoit.com
/users
/andrejasedlar1
/canvases/%23Leptiri
%C4%87irasturaju
%20Dan%20p%C4
%8Dela%20](http://linoit.com/users/andrejasedlar1/canvases/%23Leptiri%C4%87irasturaju%20Dan%20p%C4%8Dela%20)

i

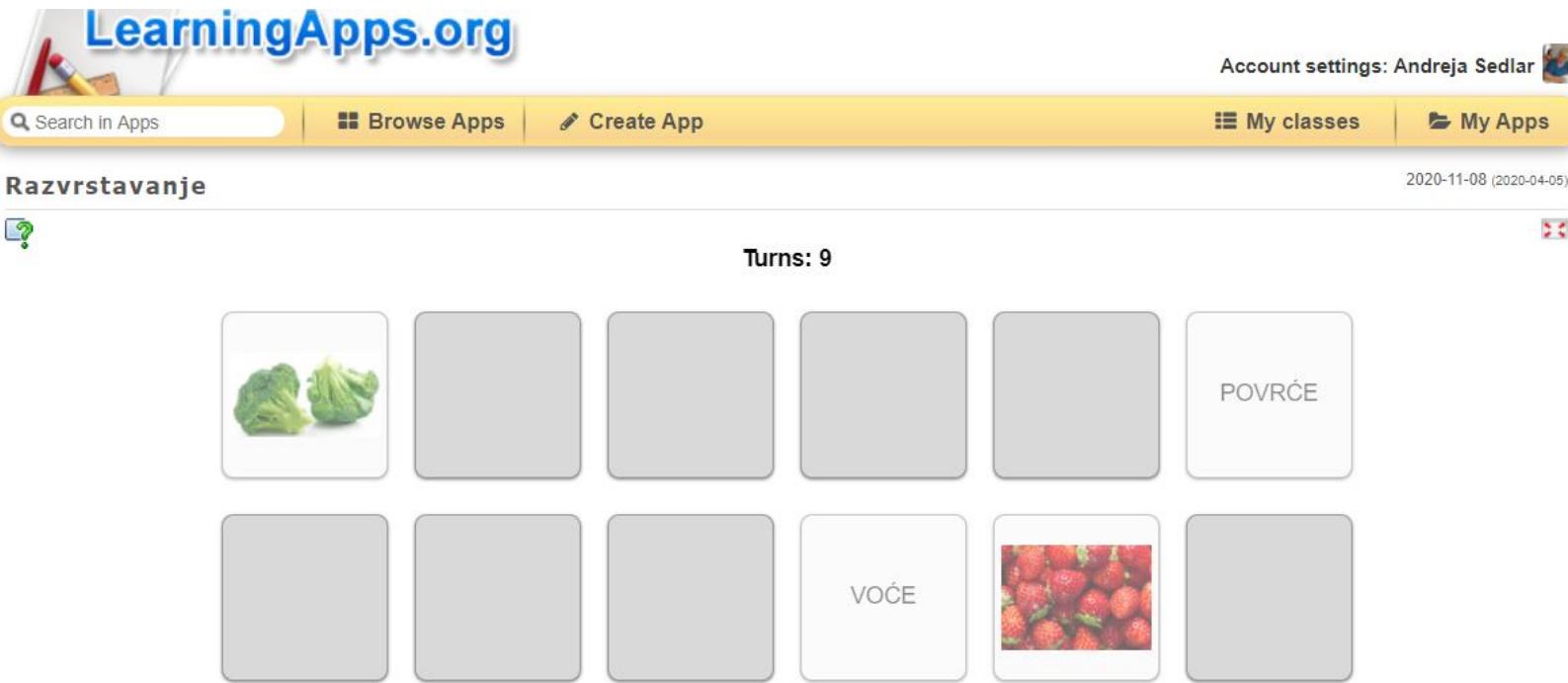
#Leptirićirasturaju Dan
pčela

linoit.com

- <http://linoit.com/users/andrejasedlar1/canvases/%23Leptiri%C4%87irasturaju%20Dan%20p%C4%8Dela%20>

Learningapps je odličan alat za predškolce:

<https://learningapps.org/watch?v=pqzwr2nka20>



The screenshot shows a matching game titled "Razvrstavanje" (Arranging) on the LearningApps.org website. The interface includes a search bar, navigation links for "Browse Apps" and "Create App", and account settings for "Andreja Sedlar". The game board displays 9 turns. In the first row, there is an image of two broccoli pieces and a blank gray card. In the second row, there is a blank gray card and a blank gray card. In the third row, there is a blank gray card, the word "VOĆE" (Vegetables), and an image of strawberries. The word "POVRĆE" (Fruit) is also visible on a card.

<https://learningapps.org/watch?v=p7ga9uphj20>

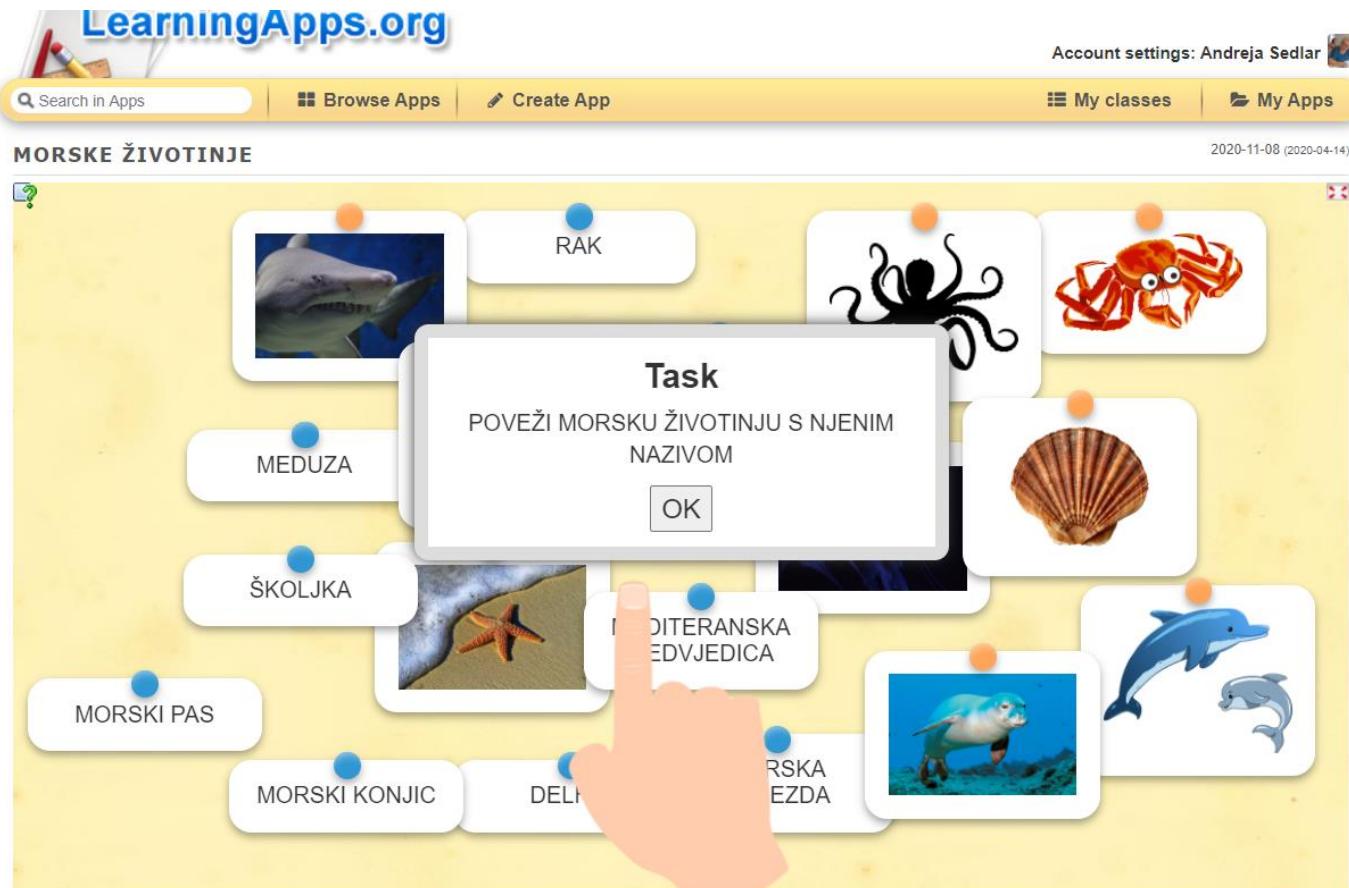
LearningApps.org

Account settings: Andreja Sedlar

Search in Apps | Browse Apps | Create App | My classes | My Apps

MORSKE ŽIVOTINJE

2020-11-08 (2020-04-14)



Task

POVEŽI MORSKU ŽIVOTINU S NJENIM NAZIVOM

OK

Create similar App

private App public App Edit App

<https://learningapps.org/watch?v=pua8fge2v20>

LearningApps.org

Account settings: Andreja Sedlar

Search in Apps | Browse Apps | Create App | My classes | My Apps

DOMAĆE I DIVLJE ŽIVOTINJE 2020-11-08 (2020-04-13)

DOMAĆE ŽIVOTINJE DIVLJE ŽIVOTINJE

Task

RAZVRSTAJ ŽIVOTINJE

OK

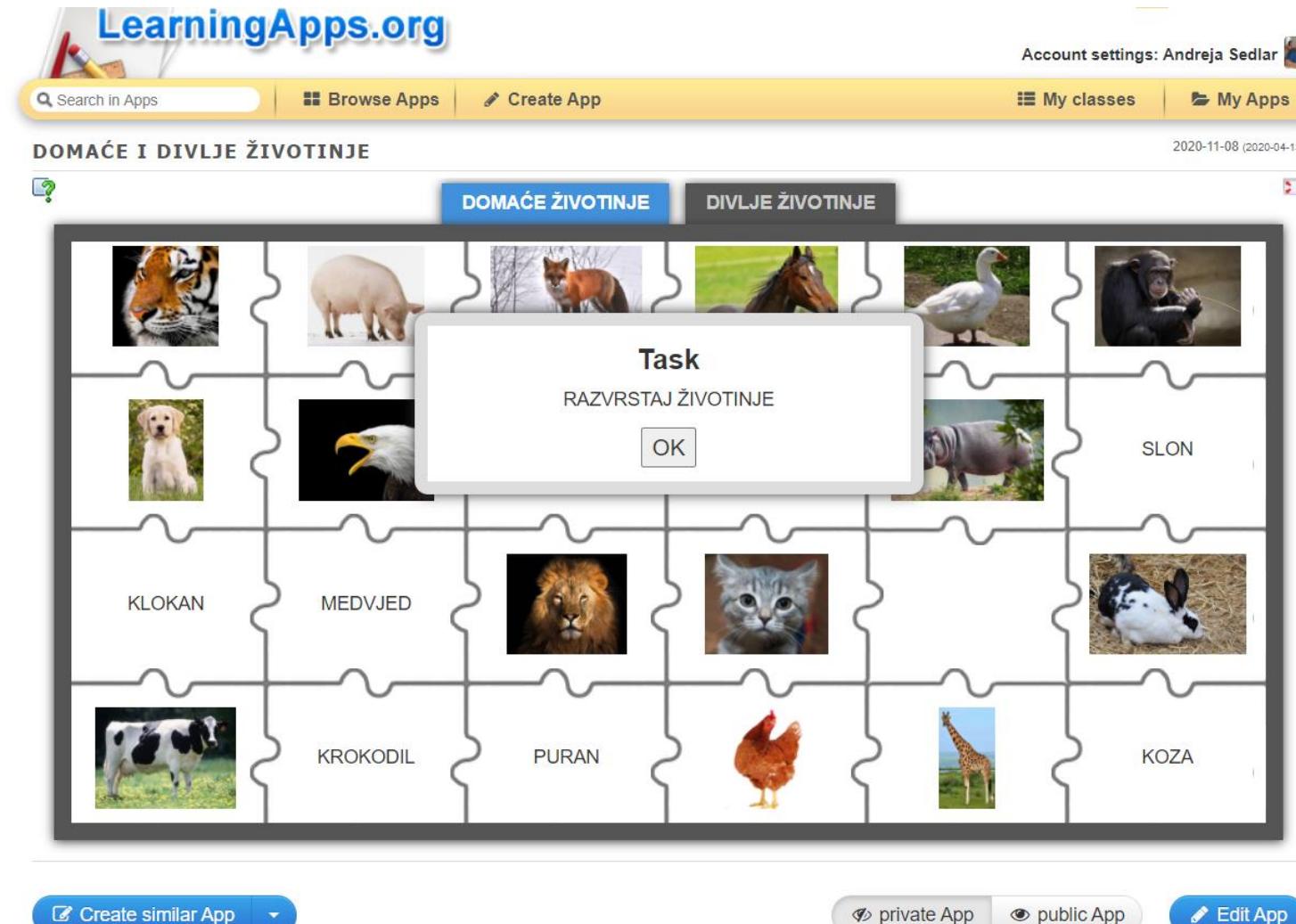
SLON

KLOKAN MEDVJED

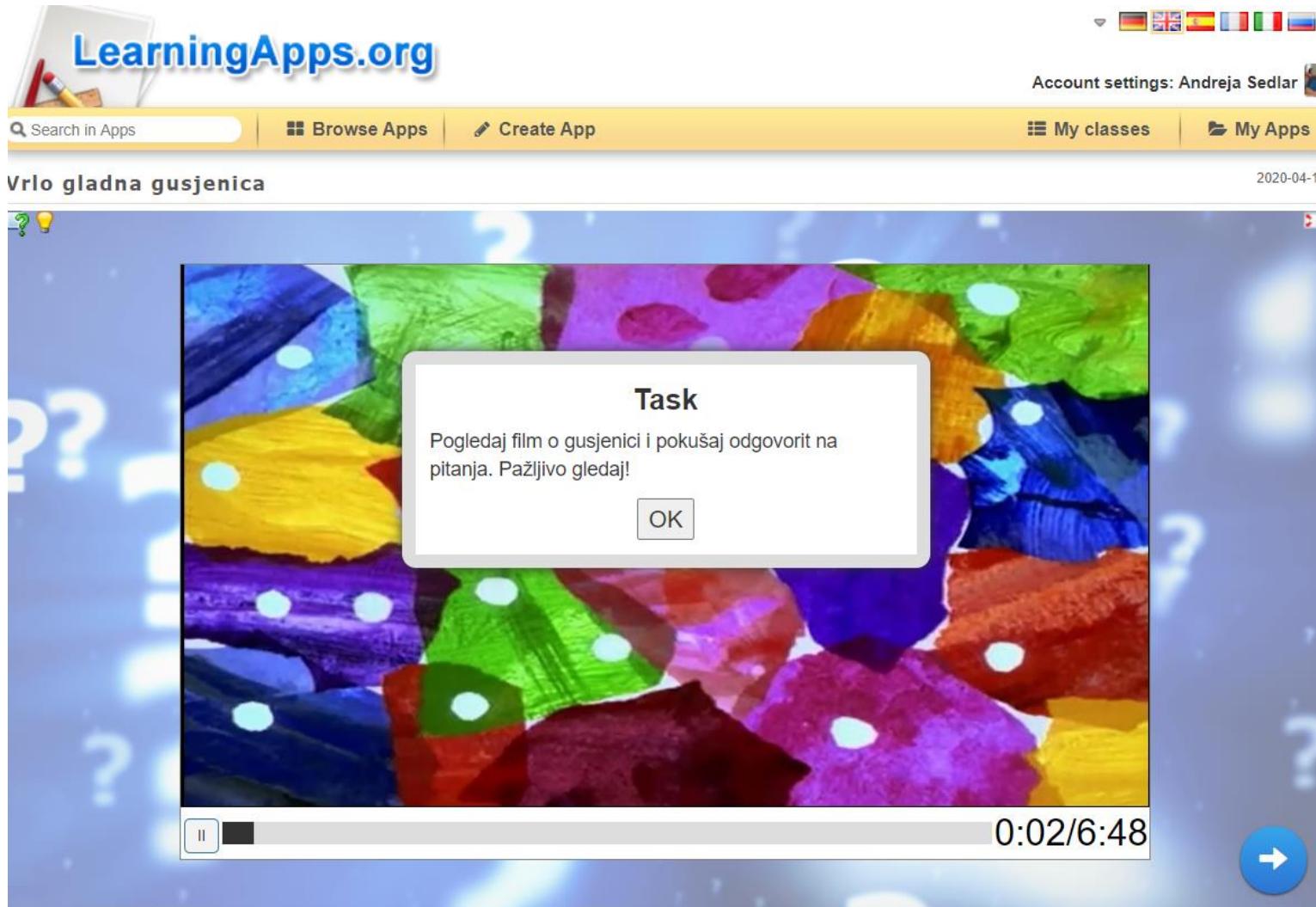
PURAN KROKODIL KOZA

ERASER

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<https://learningapps.org/watch?v=patg4pfac20>



eTwinning projekt Outdoor Classroom day

- Mi mali i oni veliki!
- Partneri ne moraju biti iste kronološke dobi
- eTwinning projekti su suradnja!
- Mogućnost upoznavanja lokalne zajednice



Nacionalna oznaka kvalitete



No, to nije jedini naš zajednički projekt:

<https://regionalni.com/foto-mali-leptirici-iz-djecjeg-vrtica-varazdin-sigurno-imaju-najoriginalnije-bozicno-drvce-u-gradu-evo-i-zasto/>



Željeli bismo pročitati Vaše ideje. Posjetite stranicu

https://padlet.com/sedlar_andreja/fl5w2dggvvy

te napišite kako biste Vi ostvarili suradnju između različitih odgojno-obrazovnih ustanova.

Hvala na pozornosti!

