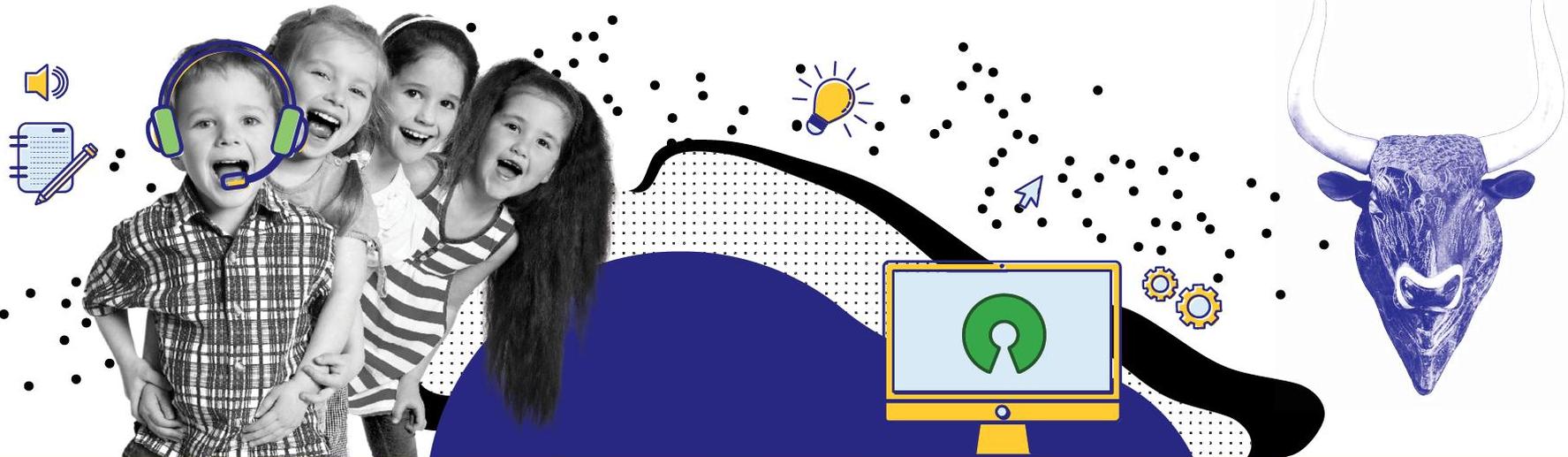




# OPEN SOURCE TOOLS in eTwinning Projects

18-20 October 2018 @ Chania, Crete, Greece



**Multilateral Seminar** for Teachers of Primary Education

Target group: Primary School Teachers (age group 6 - 12)  
Hashtags: #eTwicrete2018, #eTwinning

# Promoting Creativity and Digital Competences through Open Source Tools in eTwinning Projects

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*Creativity is contagious, pass it on!*

**Albert Einstein**



<http://allthingslearning.wordpress.com/>



# Creativity

- The ability to produce original and unusual ideas, or to make something new or imaginative.

<https://dictionary.cambridge.org/dictionary/english/creativity>

- Mental characteristic that allows a person to think outside of the box, which results in innovative or different approaches to a particular task.

<http://www.businessdictionary.com/definition/creativity.html>





# CREATIVITY

## 12 Benefits of Creativity

1 Creativity is multi-disciplinary



2 Creativity allows you to express yourself



3 Creativity promotes thinking



and problem-solving

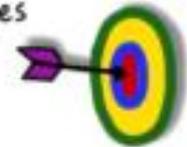
4 Creativity reduces stress and anxiety



5 Creativity allows you to enter your  and have fun!



6 Creativity gives you a sense of purpose



7 Creativity leads to feelings of accomplishment and pride



8 Creativity can link you to others with the same passion



9 Creativity improves your ability to focus



10 Creativity promotes risk-taking & iteration



11 Creativity is a pre-requisite for innovation



12 Creativity encourages us to be life-long learners



@sylvia duckworth

"Creativity now is as important in education as literacy and we should treat it with the same status."

- Ken Robinson

<https://edutransformationcenter.withgoogle.com/resource/5695127876009984>

# Digital Competences



<https://ec.europa.eu/epale/en/blog/digital-competence-course-adults>

### 8 KEY COMPETENCES

Communication  
in the mother tongue



Communication  
in foreign languages



Mathematical competence  
and basic competences in  
science and technology



Digital competence



Learning to learn



Social and civic  
competences



Sense of initiative  
and entrepreneurship



Cultural awareness  
and expression



Digital Competence  
is one of the 8  
key competences

Digital Competence is a transversal key competence enabling us to acquire other key competences

[http://files.eun.org/etwinning/EN\\_Developing%20pupil%20competences%20through%20eTwinning.pdf](http://files.eun.org/etwinning/EN_Developing%20pupil%20competences%20through%20eTwinning.pdf) (see p. 44)



eTwinning  
The Community of Schools in Europe

OPEN SOURCE TOOLS in eTwinning Projects

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# Digital Competences

The Dig Comp Framework contains 21 competences structured according to 5 competence areas . The areas of digital competence are the following:

1. **Information:** Identify, locate, retrieve, store, organise and analyse digital information, judging its relevance and purpose.
2. **Communication:** Communicate in digital environments, share resources through online tools, link with others and collaborate through digital tools, interact with and participate in communities and networks, cross-cultural awareness.
3. **Content-creation:** Create and edit new content (from word processing to images and video); integrate and re elaborate previous knowledge and content; produce creative expressions, media outputs and programming; deal with and apply intellectual property rights and licences.
4. **Safety:** Personal protection, data protection, digital identity protection, security measures, safe and sustainable use.
5. **Problem-solving:** Identify digital needs and resources, make informed decisions as to which are the most appropriate digital tools according to the purpose or need, solve conceptual problems through digital means, creatively use technologies, solve technical problems, update one's own and others' competences.

Competence areas	21 Competences
1. Information	<b>1.1 Browsing, searching, &amp; filtering information</b> <b>1.2 Evaluating Information</b> <b>1.3 Storing and retrieving information</b>
2. Communication	<b>2.1 Interacting through technologies</b> <b>2.2 Sharing information and content</b> <b>2.3 Engaging in online citizenship</b> <b>2.4 Collaborating through digital channels</b> <b>2.5 Netiquette</b> <b>2.6 Managing digital identity</b>
3. Content creation	<b>3.1 Developing content</b> <b>3.2 Integrating and re-elaborating</b> <b>3.3 Copyright and Licences</b> <b>3.4 Programming</b>
4. Safety	<b>4.1 Protecting devices</b> <b>4.2 Protecting data and digital identity</b> <b>4.3 Protecting health</b> <b>4.4 Protecting the environment</b>
5. Problem solving	<b>5.1 Solving technical problems</b> <b>5.2 Expressing needs &amp; identifying technological responses</b> <b>5.3 Innovating, creating and solving using digital tools</b> <b>5.4 Identifying digital competence gaps</b>

<http://is.jrc.ec.europa.eu/pages/EAP/DIGCOMP.html>

To summarise



Digital Competence

Digital competence is the set of knowledge, skills, attitudes



Learning domains

that are required when using ICT, digital media and tools



Tools

to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge



Competence areas

for work, leisure, participation, learning, socialising, consuming & empowerment



Purpose





# FOSS

## FREE AND OPEN SOURCE SOFTWARE

Anyone is freely licensed to use, copy, study, and change the software in any way, and the source code is openly shared so that people are encouraged to voluntarily improve the design of the software.

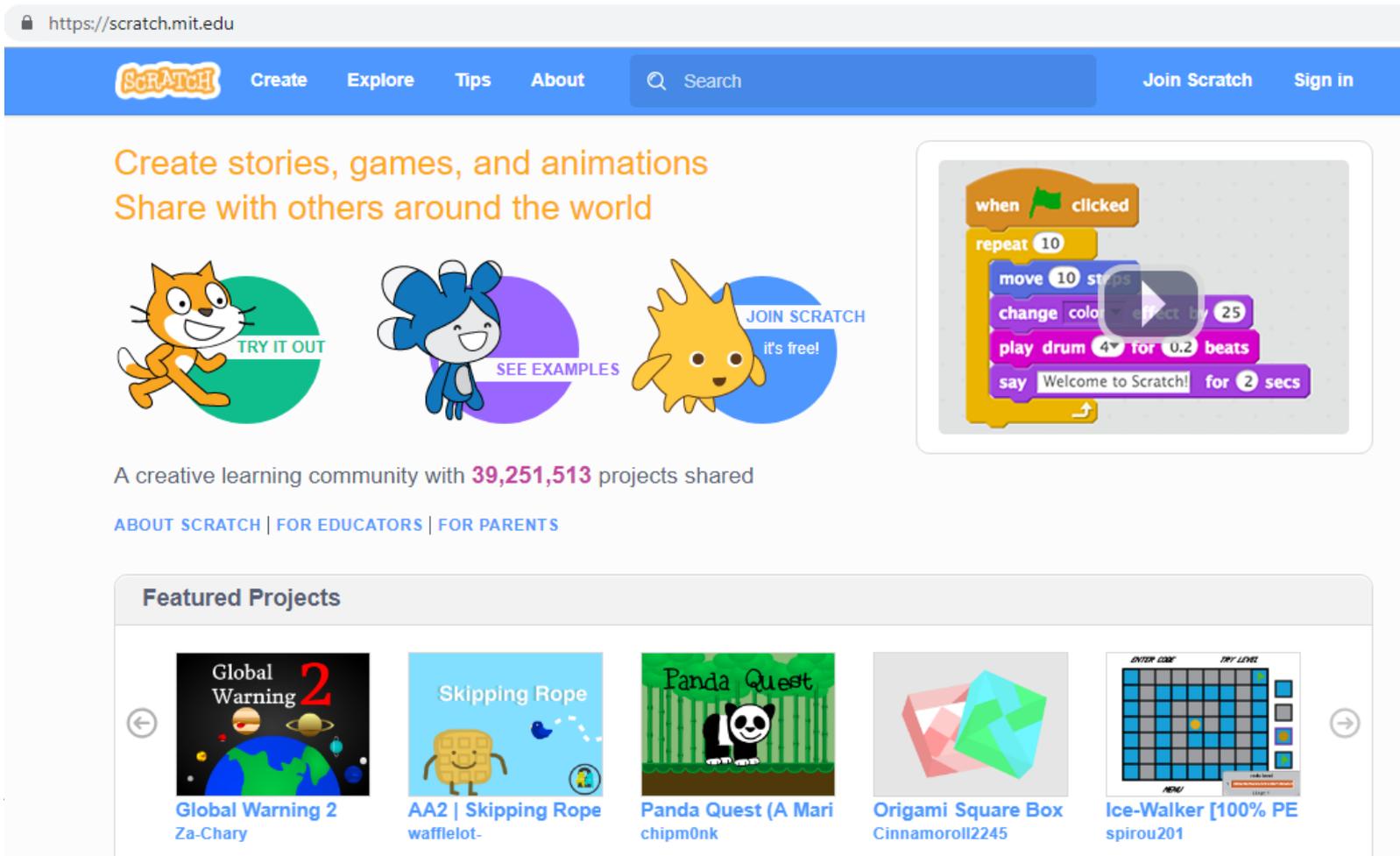


# 340 Software packages

[https://edu.ellak.gr/edu\\_fos/](https://edu.ellak.gr/edu_fos/)



<https://scratch.mit.edu/>



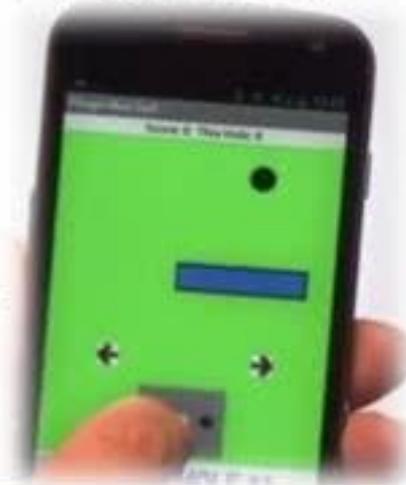
The screenshot shows the Scratch website homepage. At the top, there is a navigation bar with the Scratch logo, links for 'Create', 'Explore', 'Tips', and 'About', a search bar, and 'Join Scratch' and 'Sign in' buttons. Below the navigation bar, the main heading reads 'Create stories, games, and animations' and 'Share with others around the world'. There are three circular icons: one with the Scratch cat and 'TRY IT OUT', one with a blue character and 'SEE EXAMPLES', and one with a yellow character and 'JOIN SCRATCH it's free!'. To the right, there is a code block showing a 'when green flag clicked' event, followed by a 'repeat 10' loop containing 'move 10 steps', 'change color effect by 25', 'play drum 4 for 0.2 beats', and 'say Welcome to Scratch! for 2 secs'. Below this, it says 'A creative learning community with 39,251,513 projects shared' and 'ABOUT SCRATCH | FOR EDUCATORS | FOR PARENTS'. At the bottom, there is a 'Featured Projects' section with five project thumbnails: 'Global Warning 2' by Za-Chary, 'Skipping Rope' by AA2 | wafflelot-, 'Panda Quest (A Mari chipm0nk', 'Origami Square Box' by Cinnamoroll2245, and 'Ice-Walker [100% PE spirou201'. A small blue bull icon is visible on the right side of the featured projects section.

<http://appinventor.mit.edu/explore/>



# MIT App Inventor

Design and program fully functional apps and run them on any Android phone!



## Area Models for Improper Fractions – 2 Fractions

Author: EDC in Maine

Fraction 1

$\frac{3}{5}$

Decimal  Model

Percent  Sections

*switch*

---

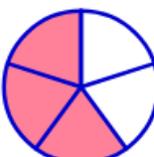
Fraction 2

$\frac{7}{3}$

Decimal  Model

Percent  Sections

*switch*






## Free & Open Source Image Editor

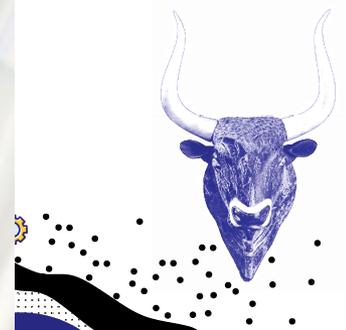
Official website of the GNU Image Manipulation Program (GIMP).

A cross-platform image editor available for Linux, macOS, Windows and more operating systems. It is free software, so you can change its source code and distribute it.

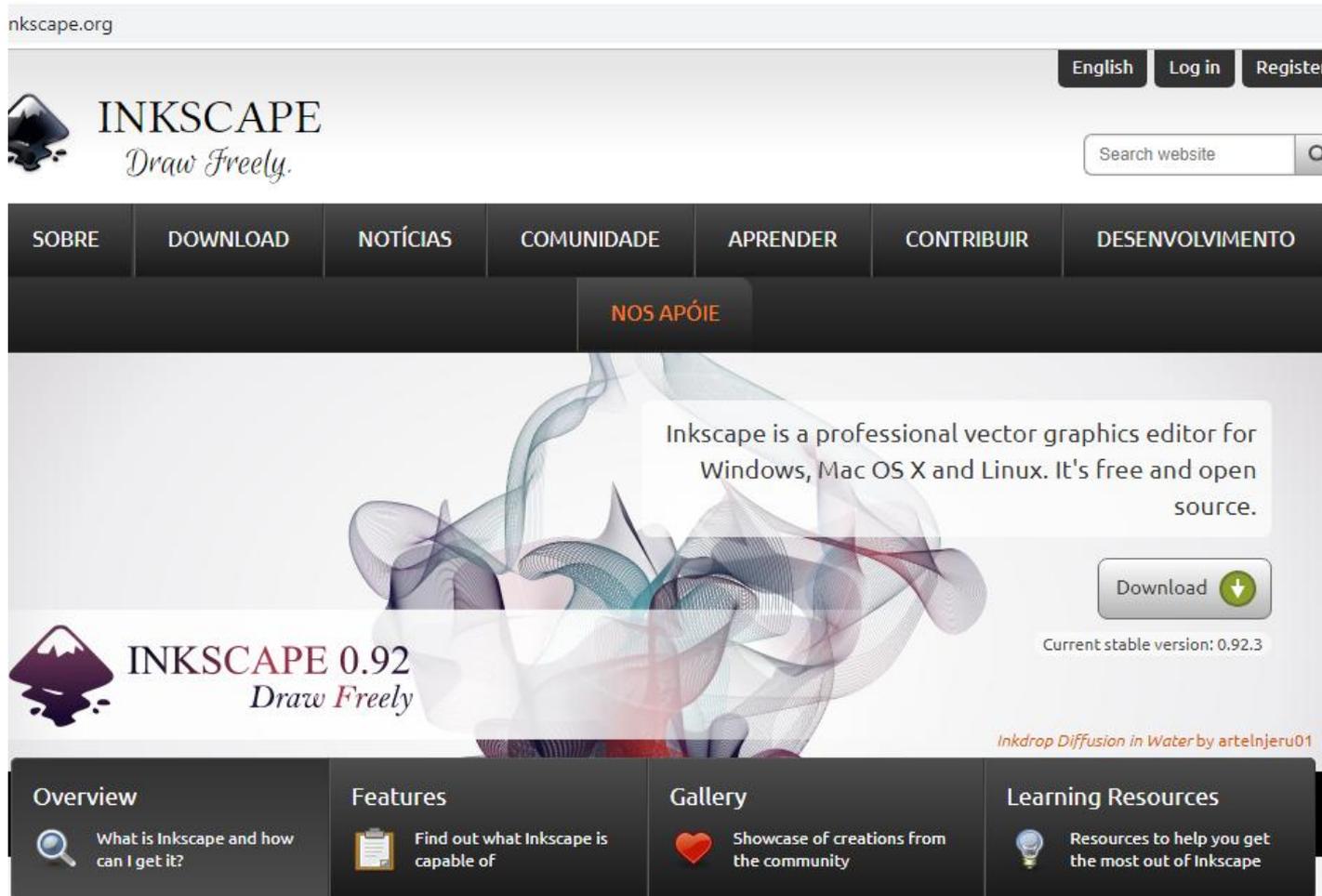
## Recent News

GIMP receives a \$100K donation  
[2018-08-30](#)

GIMP 2.10.6 Released  
[2018-08-19](#)



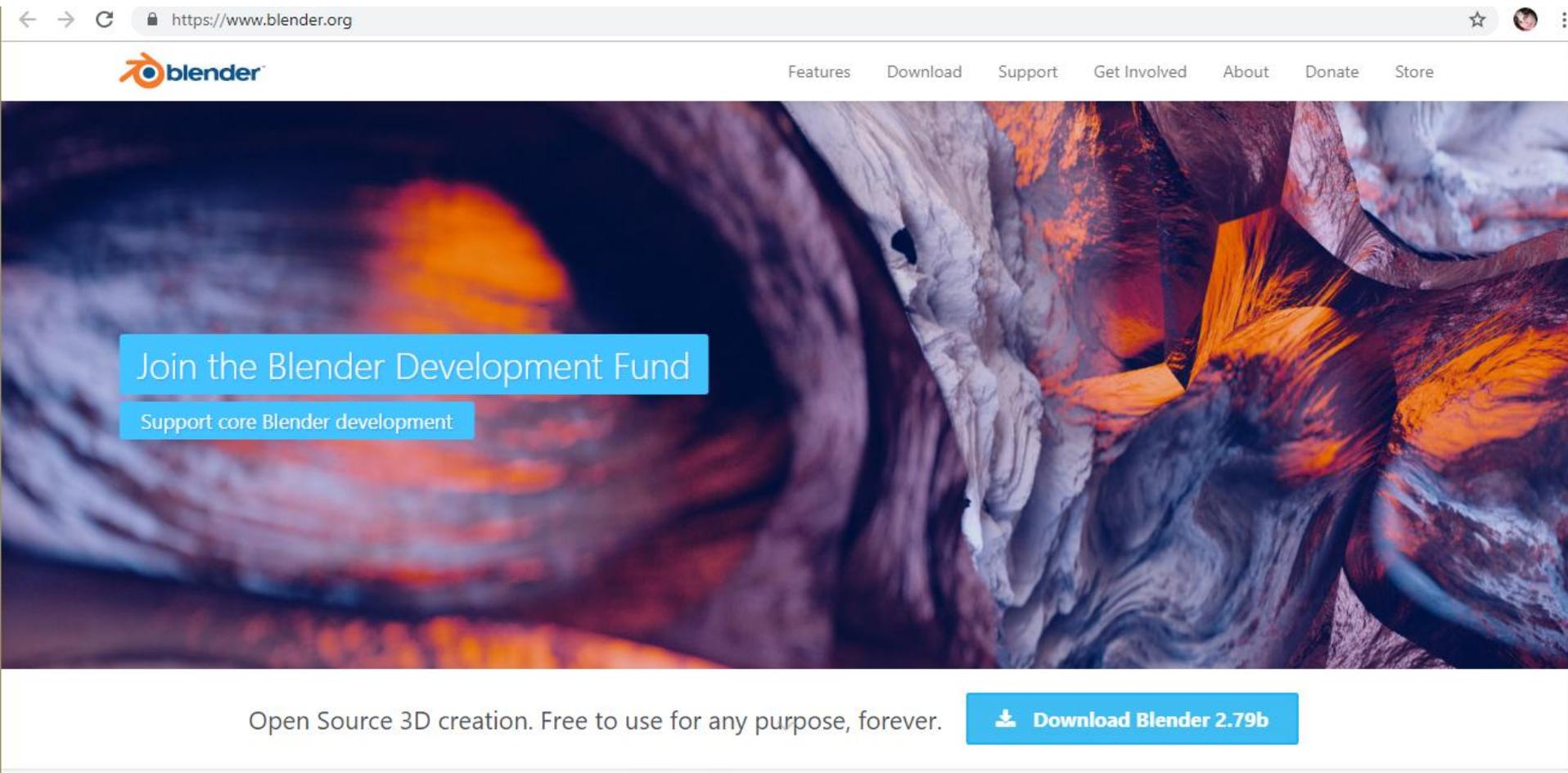
<https://inkscape.org/>



The screenshot shows the Inkscape website homepage. At the top left is the URL 'inkscape.org'. To the right are buttons for 'English', 'Log in', and 'Register'. Below these is the Inkscape logo and the tagline 'Draw Freely.'. A search bar is located to the right of the logo. A navigation menu contains the following items: 'SOBRE', 'DOWNLOAD', 'NOTÍCIAS', 'COMUNIDADE', 'APRENDER', 'CONTRIBUIR', and 'DESENVOLVIMENTO'. A highlighted button labeled 'NOS APÓIE' is positioned below the navigation menu. The main content area features a large abstract graphic of overlapping translucent shapes. A text box in the center reads: 'Inkscape is a professional vector graphics editor for Windows, Mac OS X and Linux. It's free and open source.' Below this text is a 'Download' button with a green arrow icon. To the right of the button, it says 'Current stable version: 0.92.3'. At the bottom left of the main area, there is a smaller Inkscape logo and the text 'INKSCAPE 0.92 Draw Freely.'. At the bottom right, there is a credit line: 'Inkdrop Diffusion in Water by artelnjeru01'. A footer navigation bar contains four sections: 'Overview' (with a magnifying glass icon and the text 'What is Inkscape and how can I get it?'), 'Features' (with a clipboard icon and the text 'Find out what Inkscape is capable of'), 'Gallery' (with a heart icon and the text 'Showcase of creations from the community'), and 'Learning Resources' (with a lightbulb icon and the text 'Resources to help you get the most out of Inkscape').



<https://www.blender.org/>



← → ↻ 🔒 https://www.blender.org ☆ 👤 ⋮

 [Features](#) [Download](#) [Support](#) [Get Involved](#) [About](#) [Donate](#) [Store](#)

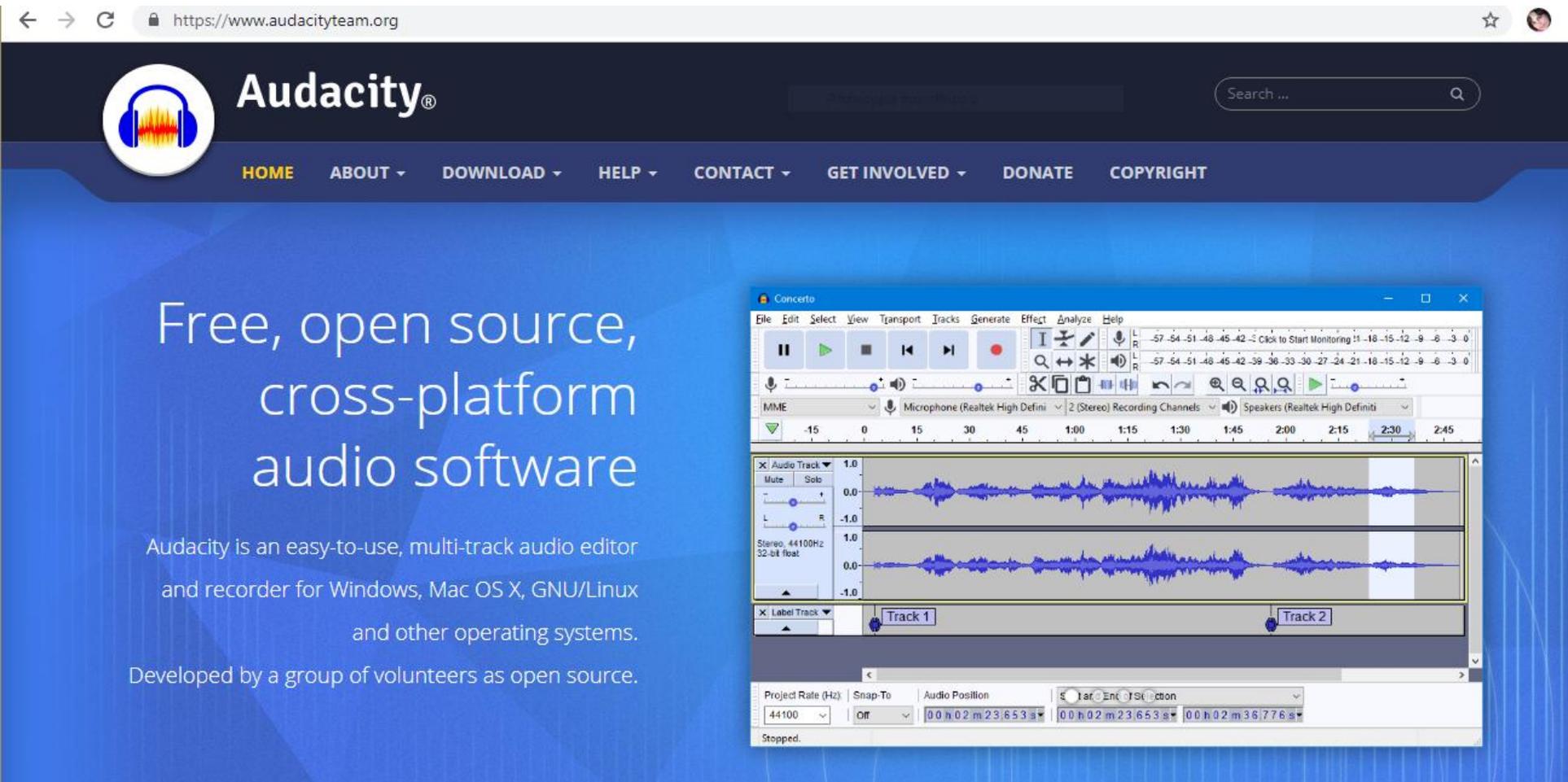
Join the Blender Development Fund

Support core Blender development

Open Source 3D creation. Free to use for any purpose, forever.

 [Download Blender 2.79b](#)

<https://www.audacityteam.org/>

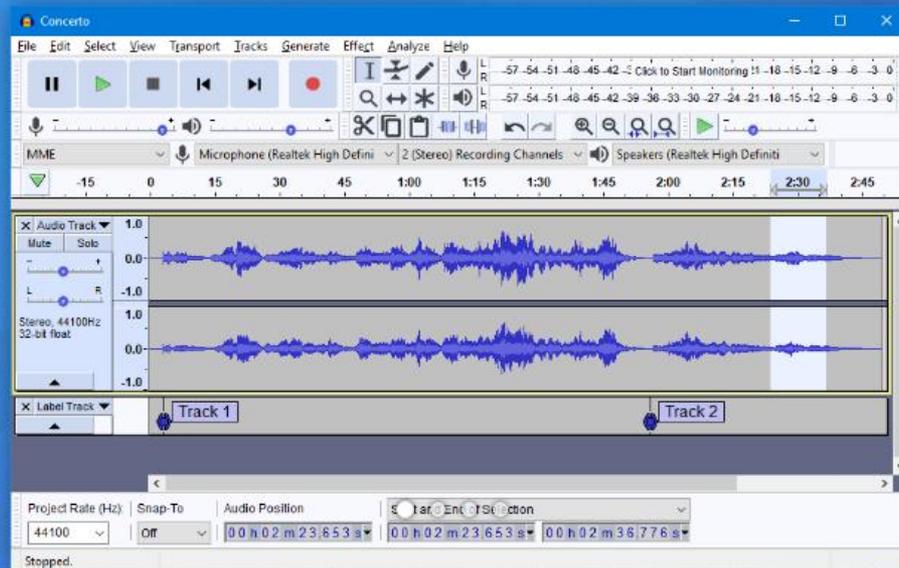


The image shows a screenshot of the Audacity website and its software interface. The website header features the Audacity logo (a pair of headphones with a flame) and the name "Audacity®". Navigation links include HOME, ABOUT, DOWNLOAD, HELP, CONTACT, GET INVOLVED, DONATE, and COPYRIGHT. A search bar is also present. The main content area has a blue background with the text "Free, open source, cross-platform audio software". Below this, it states "Audacity is an easy-to-use, multi-track audio editor and recorder for Windows, Mac OS X, GNU/Linux and other operating systems. Developed by a group of volunteers as open source." To the right, a screenshot of the Audacity software interface is shown, displaying a multi-track audio editor with two tracks, a waveform, and various controls.

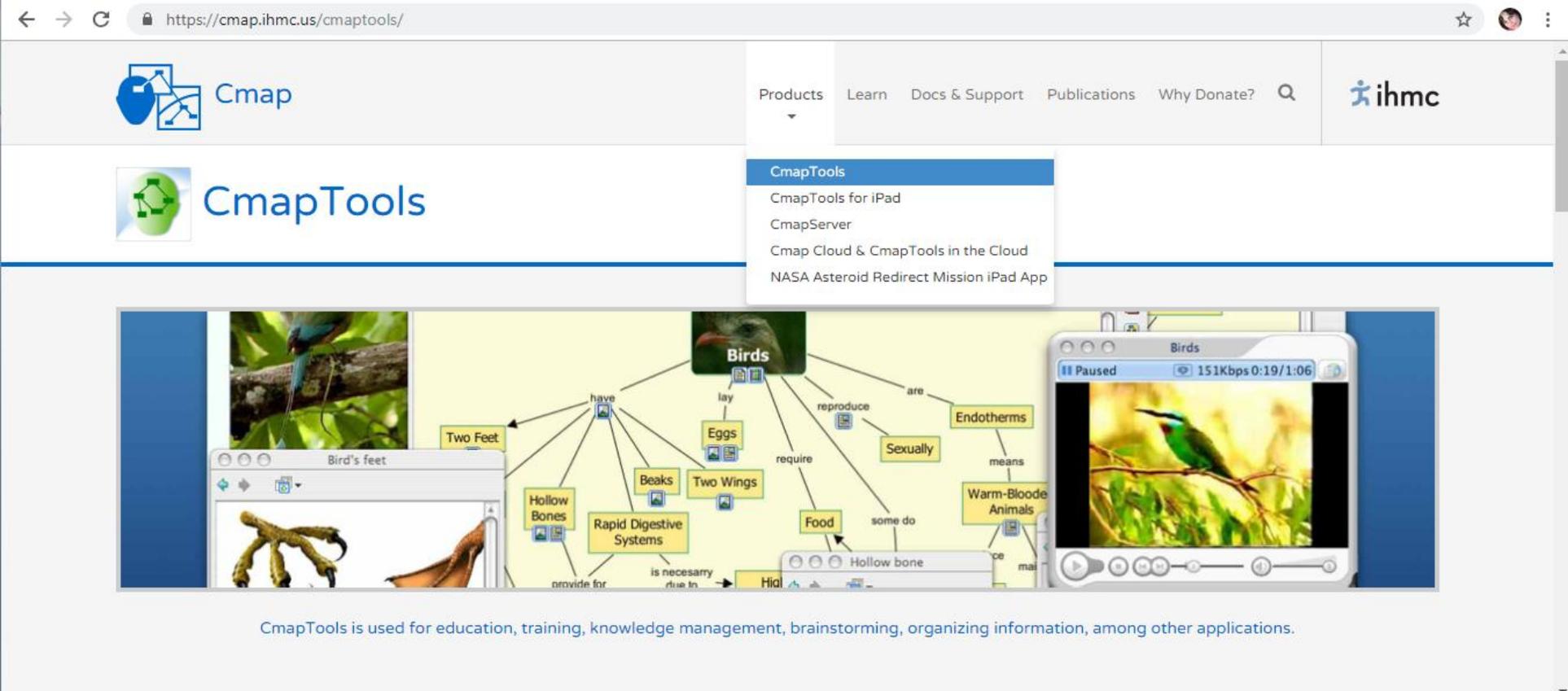
## Free, open source, cross-platform audio software

Audacity is an easy-to-use, multi-track audio editor and recorder for Windows, Mac OS X, GNU/Linux and other operating systems.

Developed by a group of volunteers as open source.



<https://cmap.ihmc.us/cmaptools/>

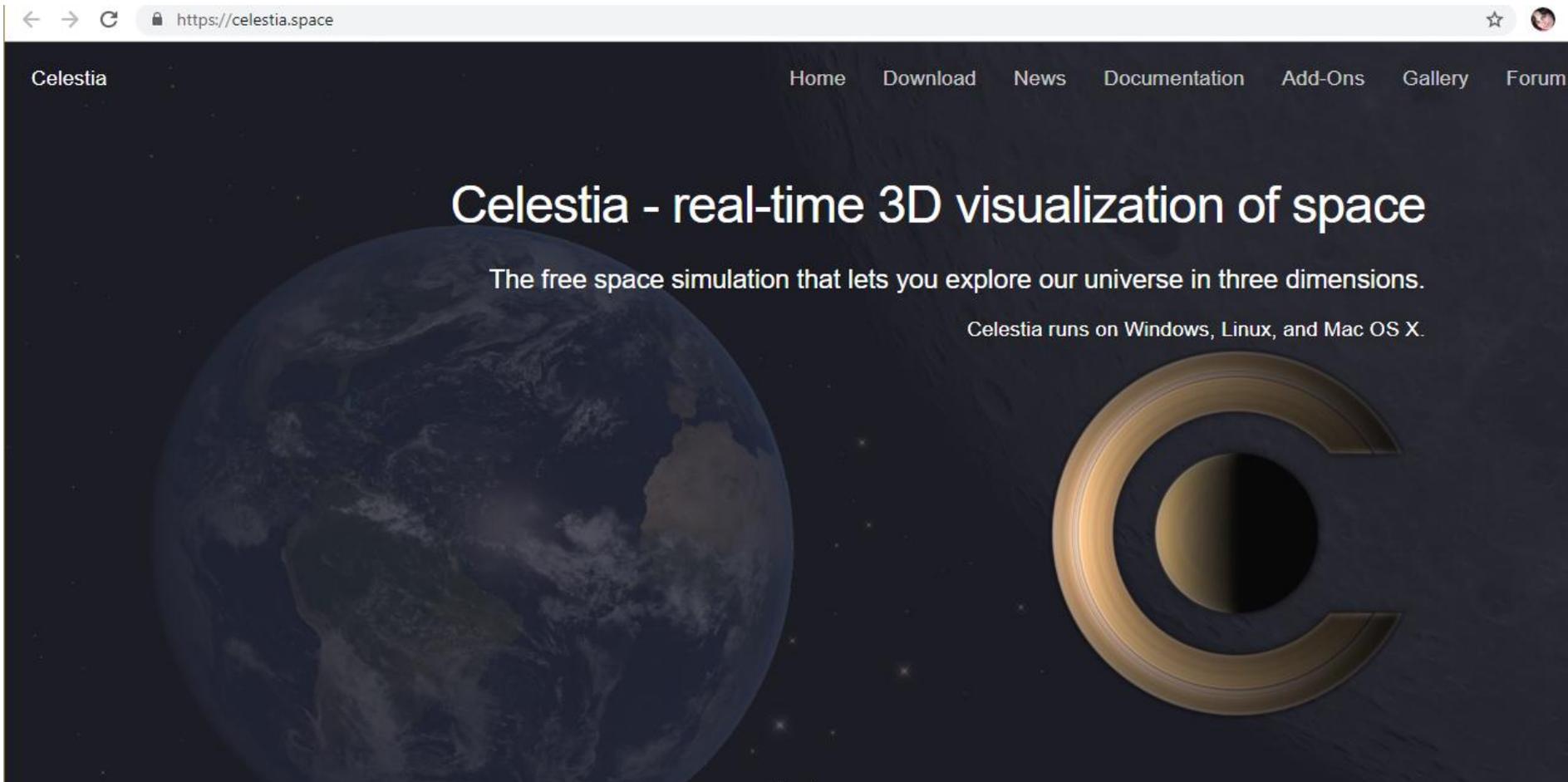


The screenshot shows the CmapTools website interface. At the top, there is a navigation bar with the Cmap logo and a menu with options: Products, Learn, Docs & Support, Publications, Why Donate?, and a search icon. Below this is the CmapTools logo. A dropdown menu is open under 'Products', listing: CmapTools, CmapTools for iPad, CmapServer, Cmap Cloud & CmapTools in the Cloud, and NASA Asteroid Redirect Mission iPad App. The main content area features a conceptual map titled 'Birds' with various nodes and relationships. Nodes include 'Birds', 'Two Feet', 'Hollow Bones', 'Rapid Digestive Systems', 'Beaks', 'Two Wings', 'Eggs', 'Food', 'Hollow bone', 'Sexually', 'Endotherms', and 'Warm-Blooded Animals'. Relationships are labeled with terms like 'have', 'lay', 'reproduce', 'are', 'require', 'some do', 'means', 'provide for', and 'is necessary due to'. There are also small video player windows overlaid on the map, one showing 'Bird's feet' and another showing a bird.

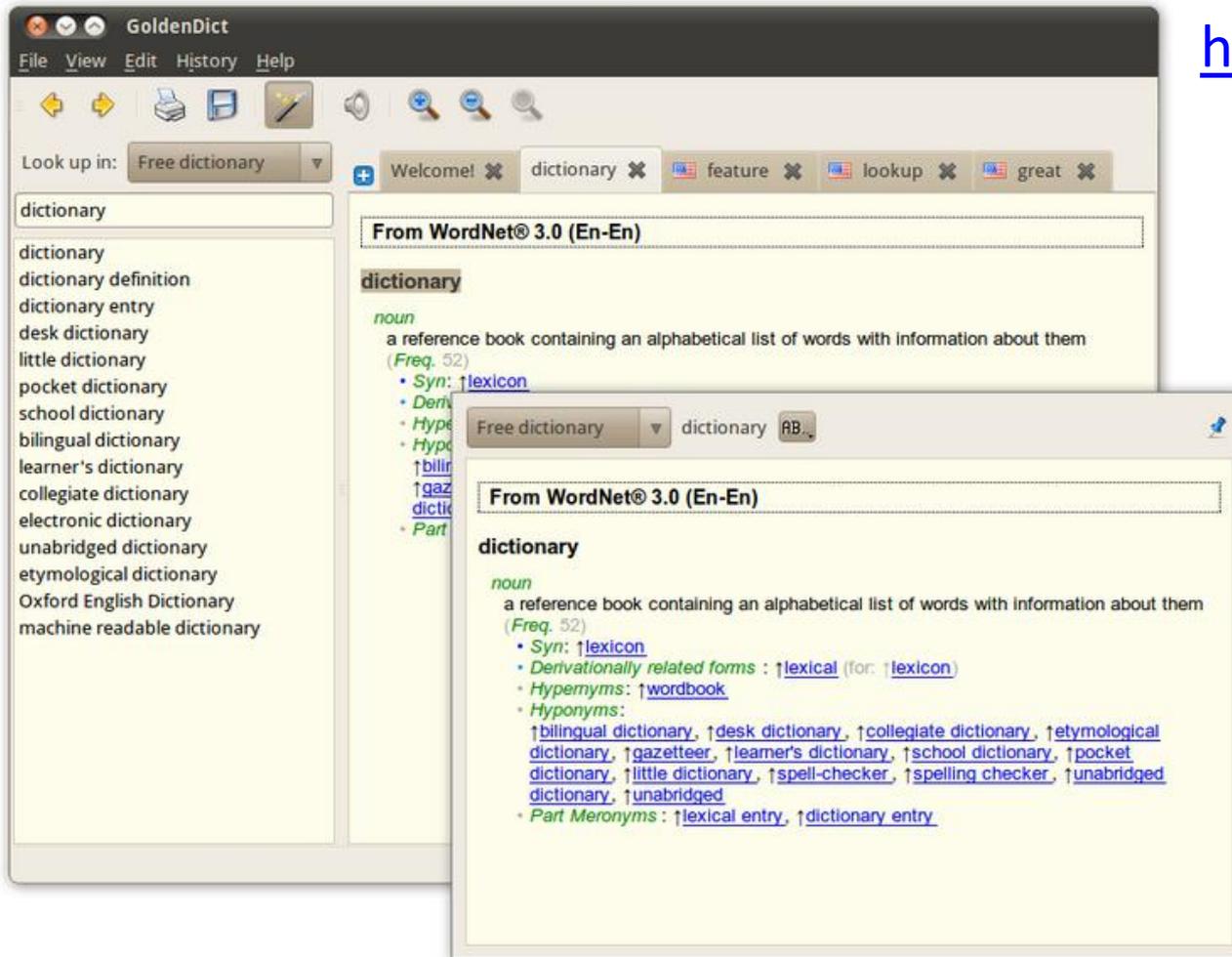
CmapTools is used for education, training, knowledge management, brainstorming, organizing information, among other applications.



<https://celestia.space/>



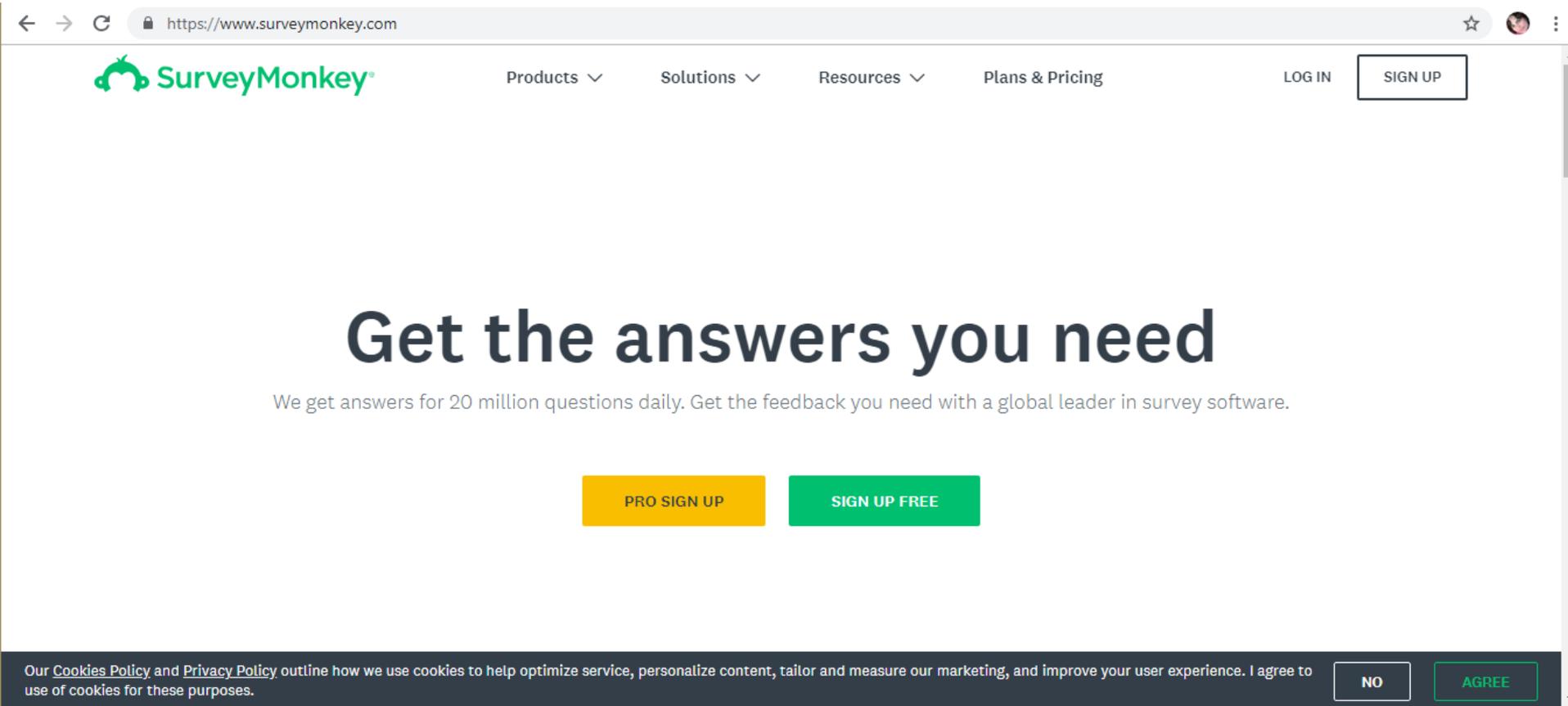
The screenshot shows a web browser window with the URL <https://celestia.space/>. The page features a dark blue background with a large image of Earth on the left and a stylized 'C' logo on the right. The text on the page reads: "Celestia - real-time 3D visualization of space", "The free space simulation that lets you explore our universe in three dimensions.", and "Celestia runs on Windows, Linux, and Mac OS X." The navigation menu includes "Home", "Download", "News", "Documentation", "Add-Ons", "Gallery", and "Forum".



<http://goldendict.org/>

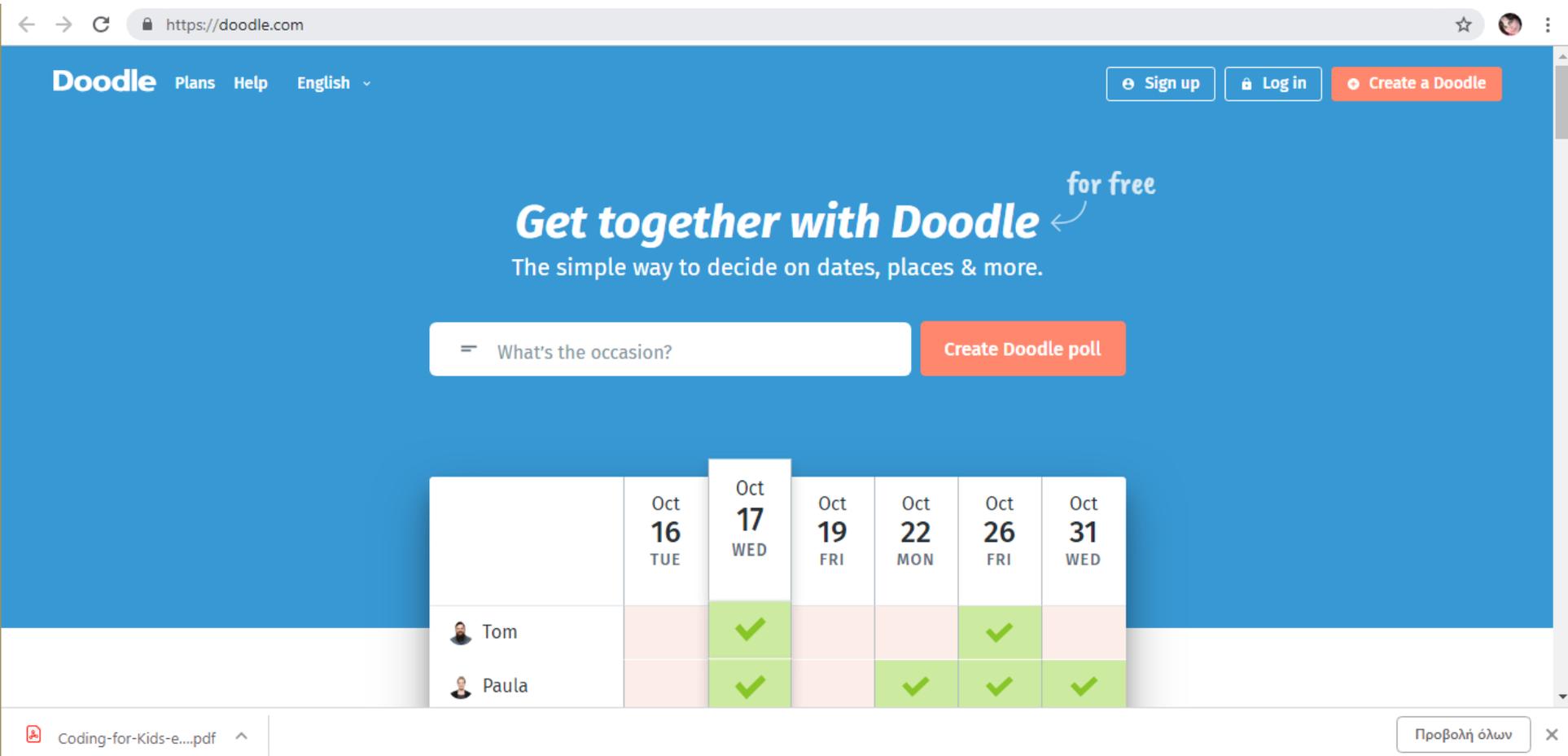


<https://www.surveymonkey.com/>



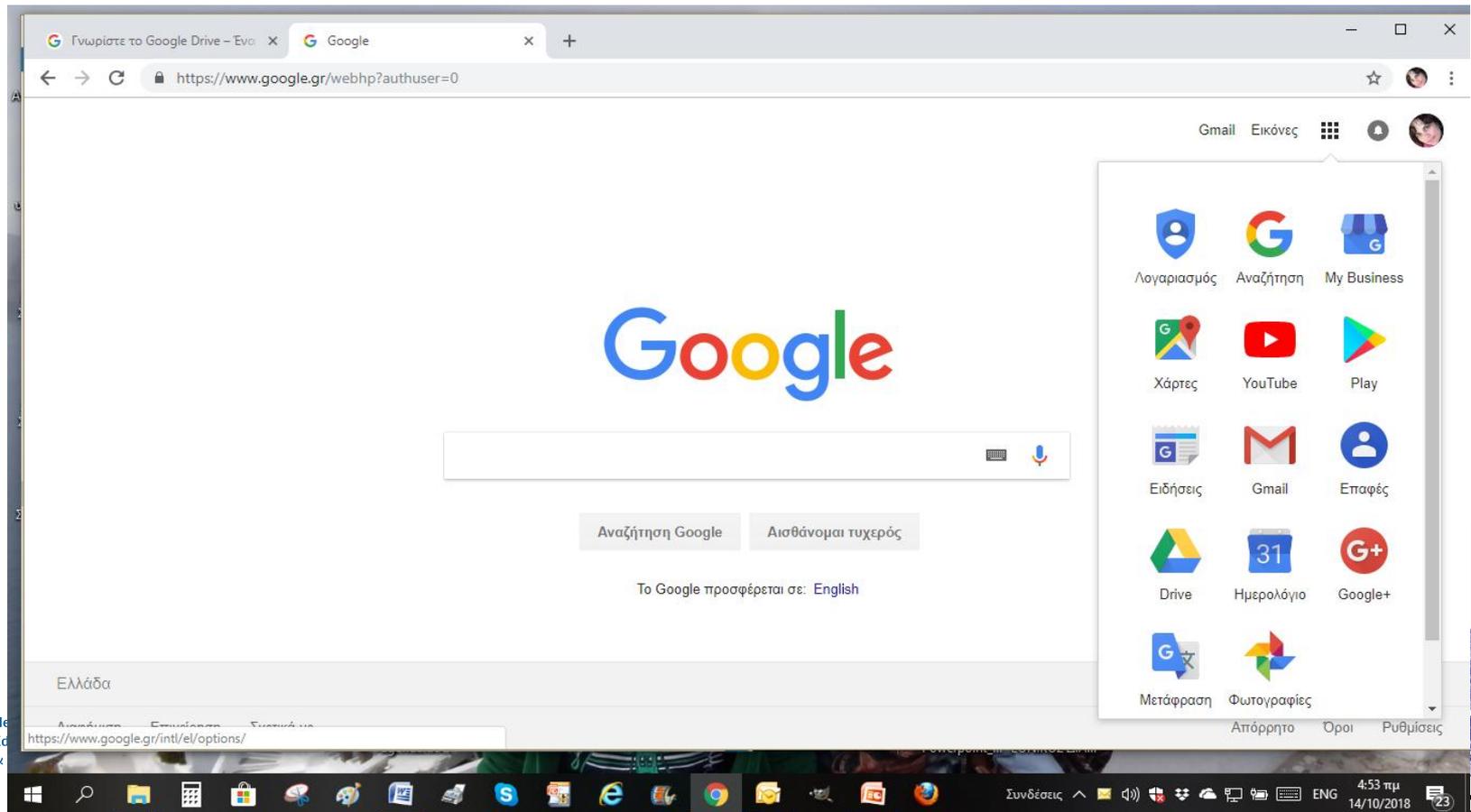
The screenshot shows the SurveyMonkey website homepage. At the top, there is a navigation bar with the SurveyMonkey logo on the left and menu items: Products, Solutions, Resources, and Plans & Pricing. On the right side of the navigation bar are links for LOG IN and SIGN UP. The main content area features a large heading "Get the answers you need" and a subheading "We get answers for 20 million questions daily. Get the feedback you need with a global leader in survey software." Below this, there are two prominent buttons: "PRO SIGN UP" (yellow) and "SIGN UP FREE" (green). At the bottom of the page, there is a dark grey footer with a cookie consent message: "Our Cookies Policy and Privacy Policy outline how we use cookies to help optimize service, personalize content, tailor and measure our marketing, and improve your user experience. I agree to use of cookies for these purposes." To the right of this message are two buttons: "NO" and "AGREE".

<https://doodle.com/>

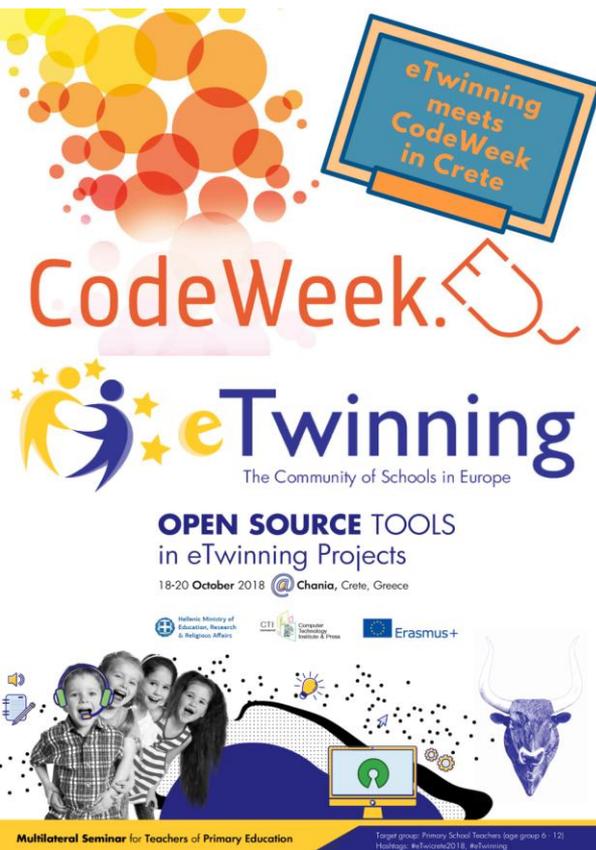


The screenshot shows the Doodle website interface. At the top, there is a navigation bar with 'Doodle', 'Plans', 'Help', and 'English'. On the right, there are buttons for 'Sign up', 'Log in', and 'Create a Doodle'. The main content area features the headline 'Get together with Doodle for free' and the subtext 'The simple way to decide on dates, places & more.' Below this is a search bar with the placeholder text 'What's the occasion?' and a 'Create Doodle poll' button. The central part of the interface displays a calendar grid for October 2018. The dates shown are Oct 16 (TUE), Oct 17 (WED), Oct 19 (FRI), Oct 22 (MON), Oct 26 (FRI), and Oct 31 (WED). A poll is active, showing green checkmarks for the following dates: Oct 17 (WED), Oct 26 (FRI), Oct 22 (MON), Oct 26 (FRI), and Oct 31 (WED). The poll participants listed are Tom and Paula. At the bottom of the browser window, there is a taskbar with a PDF file named 'Coding-for-Kids-e....pdf' and a button labeled 'Προβολή όλων'.

<https://docs.google.com/>



<https://codeweek.eu/>



eTwinning meets CodeWeek in Crete

# CodeWeek.



# eTwinning

The Community of Schools in Europe

**OPEN SOURCE TOOLS**  
in eTwinning Projects

18-20 October 2018 @ Chania, Crete, Greece



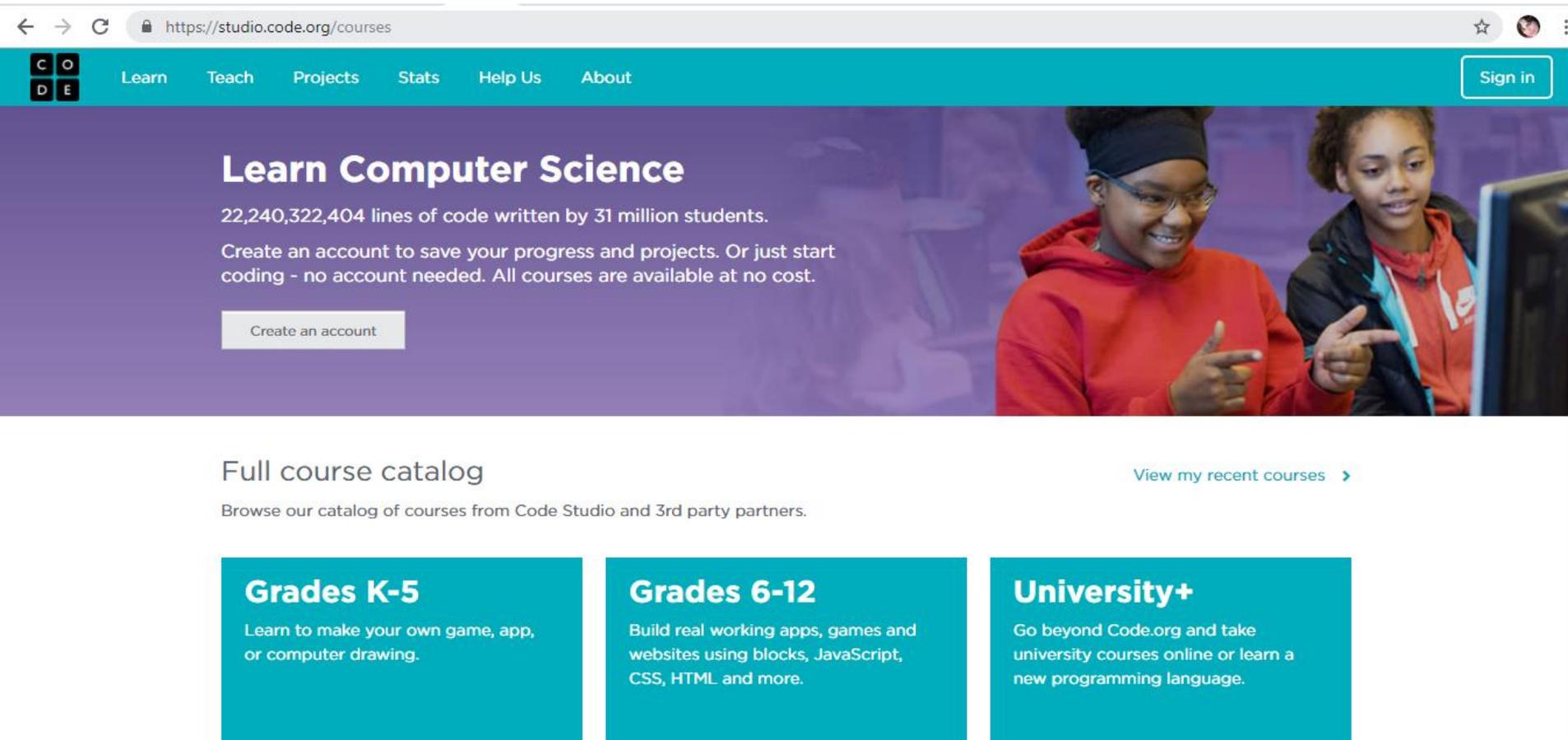


Multilateral Seminar for Teachers of Primary Education

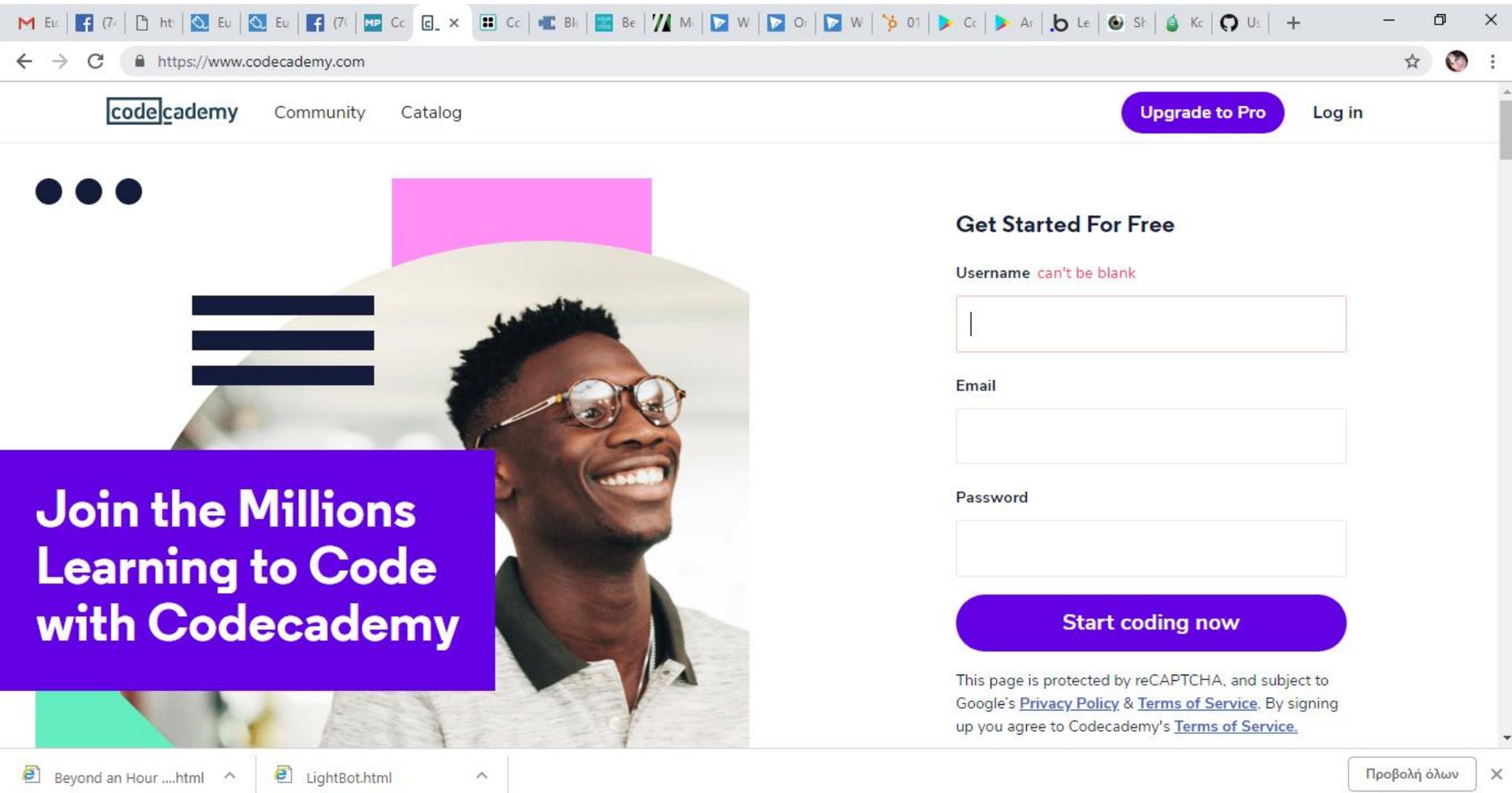
Target group: Primary School Teachers (age group 6 - 12)  
Hashtags: #eTwinning2018, #eTwinning



<https://code.org/>



The screenshot shows the Code.org website interface. At the top, there is a navigation bar with the Code.org logo (a 2x2 grid of letters C, O, D, E) and menu items: Learn, Teach, Projects, Stats, Help Us, and About. A 'Sign in' button is located on the right side of the navigation bar. Below the navigation bar is a large hero section with a purple background. On the left, the text reads 'Learn Computer Science' followed by '22,240,322,404 lines of code written by 31 million students.' and 'Create an account to save your progress and projects. Or just start coding - no account needed. All courses are available at no cost.' A 'Create an account' button is positioned below this text. On the right side of the hero section is a photograph of two young girls looking at a computer screen. Below the hero section is a 'Full course catalog' section with a 'View my recent courses' link. Underneath, there are three teal-colored boxes representing different course levels: 'Grades K-5' (Learn to make your own game, app, or computer drawing), 'Grades 6-12' (Build real working apps, games and websites using blocks, JavaScript, CSS, HTML and more), and 'University+' (Go beyond Code.org and take university courses online or learn a new programming language).



The screenshot shows the Codecademy website interface. At the top, there is a navigation bar with the Codecademy logo, 'Community', and 'Catalog' links. On the right side of the navigation bar, there are buttons for 'Upgrade to Pro' and 'Log in'. Below the navigation bar, there is a large banner on the left side featuring a smiling man with glasses and the text 'Join the Millions Learning to Code with Codecademy'. On the right side of the banner, there is a 'Get Started For Free' section with a sign-up form. The form includes fields for 'Username' (with a red error message 'can't be blank'), 'Email', and 'Password'. Below the form is a purple button labeled 'Start coding now'. At the bottom of the sign-up section, there is a note: 'This page is protected by reCAPTCHA, and subject to Google's [Privacy Policy](#) & [Terms of Service](#). By signing up you agree to Codecademy's [Terms of Service](#).' The browser's address bar shows the URL 'https://www.codecademy.com/'. The browser's taskbar at the bottom shows two open tabs: 'Beyond an Hour ....html' and 'LightBot.html'. In the bottom right corner of the browser window, there is a button labeled 'Προβολή όλων'.



HTML Tutorial

HTML Tag Reference



CSS Tutorial

CSS Reference

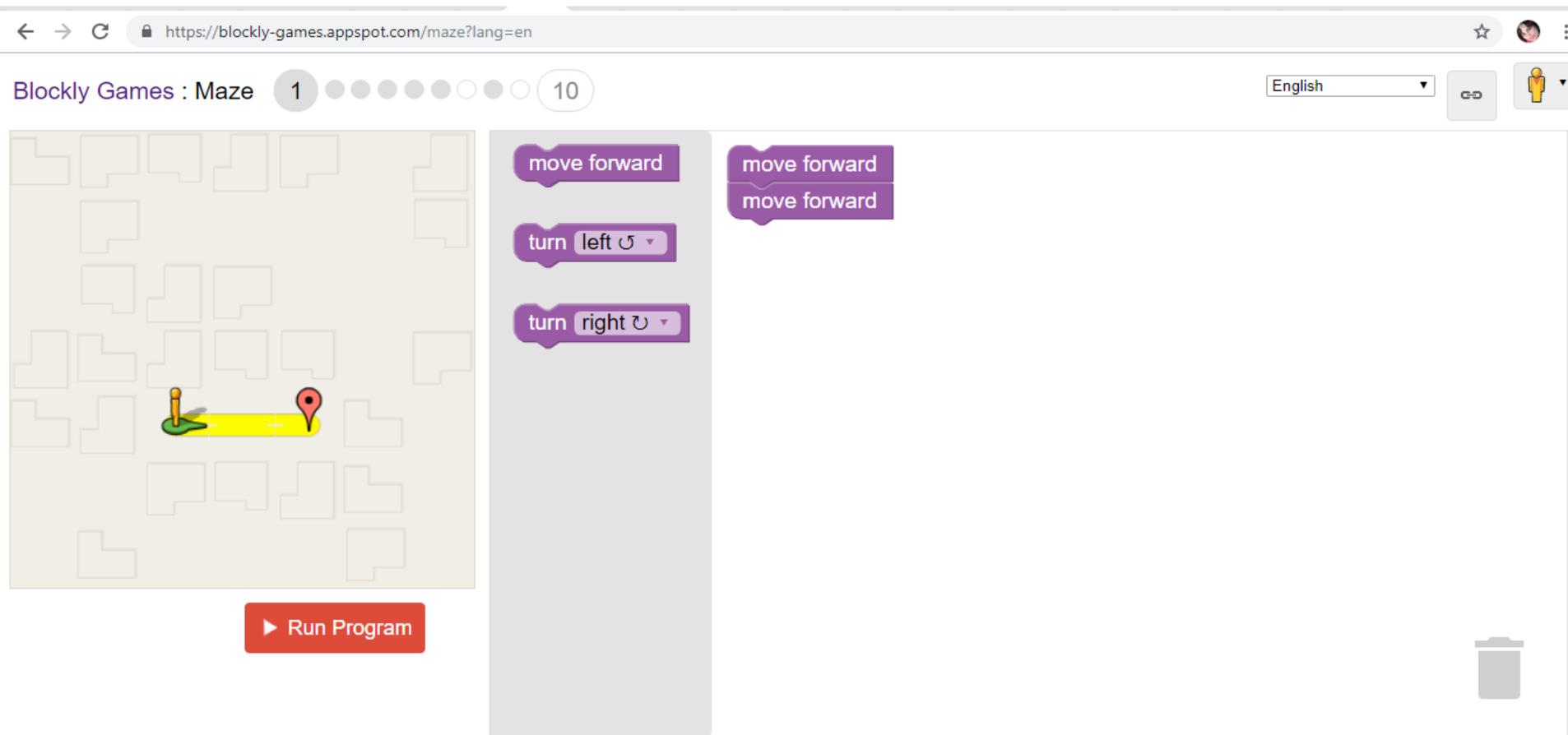


<https://www.khanacademy.org/>



```
1 noStroke();
2 background(111, 111, 207);
3
4 fill(237, 237, 250);
5 ellipse(100,199,215,215);
6 fill(111, 111, 207);
7 ellipse(118,200,75,85);
8 fill(237, 237, 250);
9 rect(0,200,400,200);
10
11 fill(11, 54, 120);
12 ellipse(290, 220, 150
13
14
15
16
17
18
19
20
21
```

<https://blockly-games.appspot.com/>



The screenshot shows a web browser window displaying the Blockly Games Maze interface. The browser's address bar shows the URL <https://blockly-games.appspot.com/maze?lang=en>. The page title is "Blockly Games : Maze". A progress indicator shows 10 levels, with the first level selected. A language dropdown menu is set to "English". The main area is divided into a maze on the left and a code editor on the right. The maze features a green robot at the start and a red pin at the goal, with a yellow path leading between them. The code editor contains a sequence of blocks: "move forward", "turn left", "turn right", "move forward", and "move forward". A red "Run Program" button is located below the maze. A trash icon is visible in the bottom right corner of the code editor area.





```

1 stage.set_background("moon")
2 sprite = codesters.Sprite("rocket")
3 sprite.go_to(-100, -150)
4 def click(sprite):
5     sprite.say("Blast Off!")
6     sprite.set_say_color("white")
7     sprite.set_y_speed(3)
8     sprite.event_click(click)
  
```

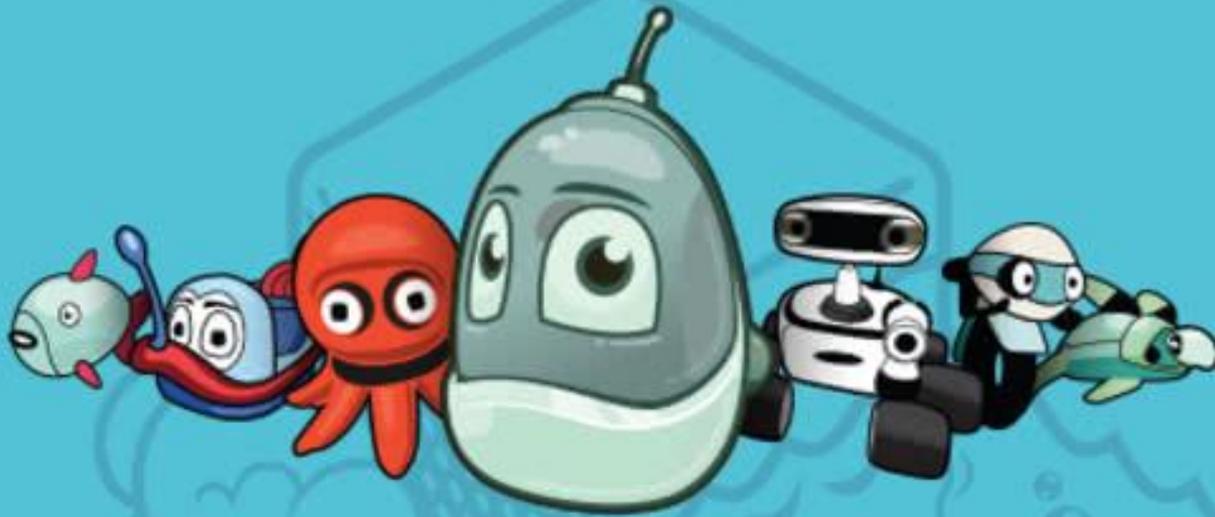


NAME	LAST	LAST	LEARNING
		LINE NO	PROGRESS
Geordan	David	1	100%
Alan	Fred	2	25%
Thomas	Paul	3	100%
		10:43 PM	25%
		10:00 AM	20%

*The easy way to teach coding at your school*



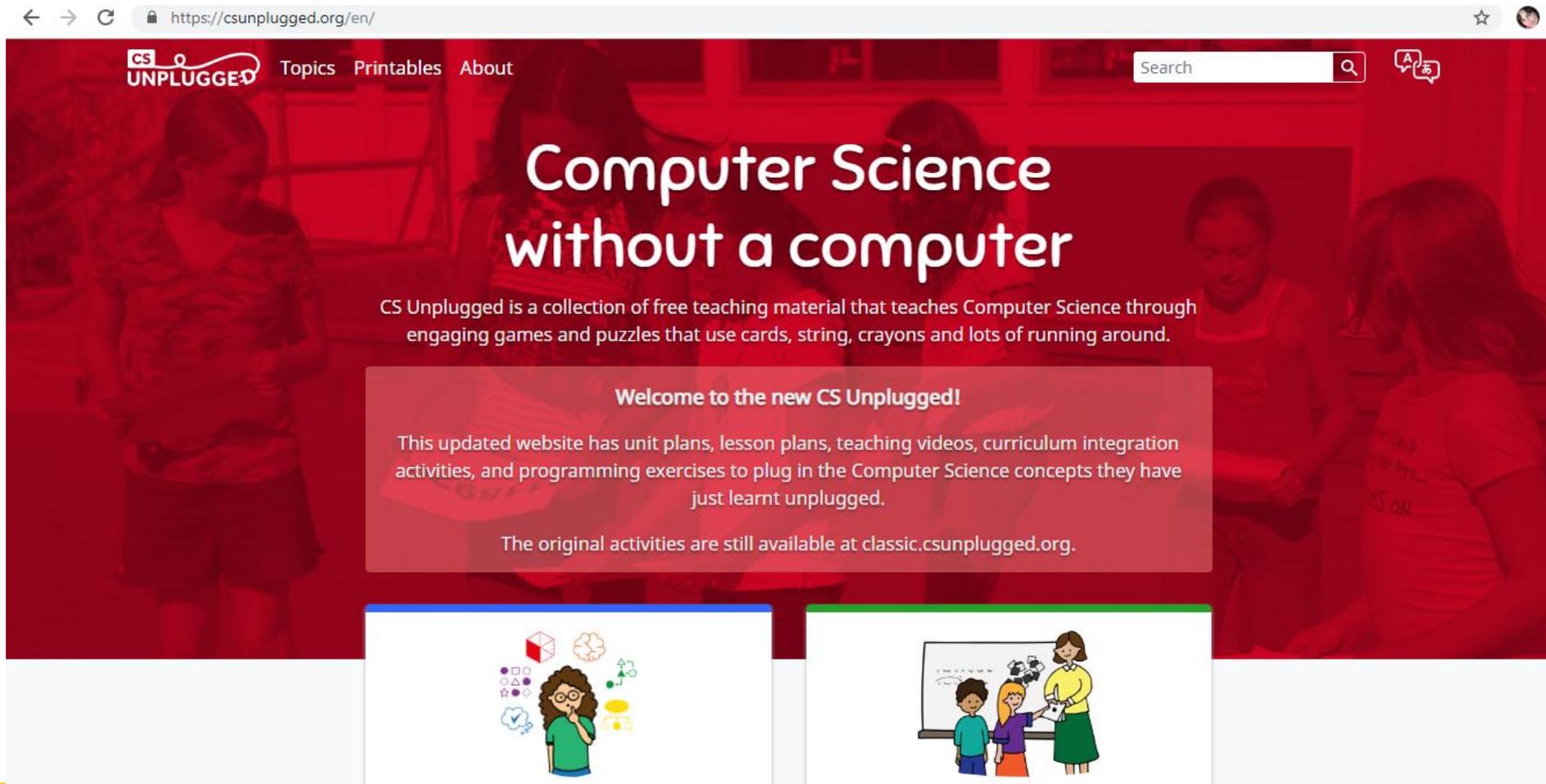
<https://www.kodugamelab.com/>



**KODU**  
GAME LAB



<https://csunplugged.org/en/>



The screenshot shows the homepage of the CS Unplugged website. The browser address bar displays "https://csunplugged.org/en/". The website header includes the "CS UNPLUGGED" logo, navigation links for "Topics", "Printables", and "About", a search bar, and a language selector. The main content area features a large red background with the title "Computer Science without a computer" and a sub-headline: "CS Unplugged is a collection of free teaching material that teaches Computer Science through engaging games and puzzles that use cards, string, crayons and lots of running around." Below this is a white box with the text: "Welcome to the new CS Unplugged! This updated website has unit plans, lesson plans, teaching videos, curriculum integration activities, and programming exercises to plug in the Computer Science concepts they have just learnt unplugged. The original activities are still available at classic.csunplugged.org." At the bottom, there are two white boxes with illustrations: one showing a child thinking with various icons, and another showing a teacher and two students in a classroom setting.



### Unplugged Flash Activity

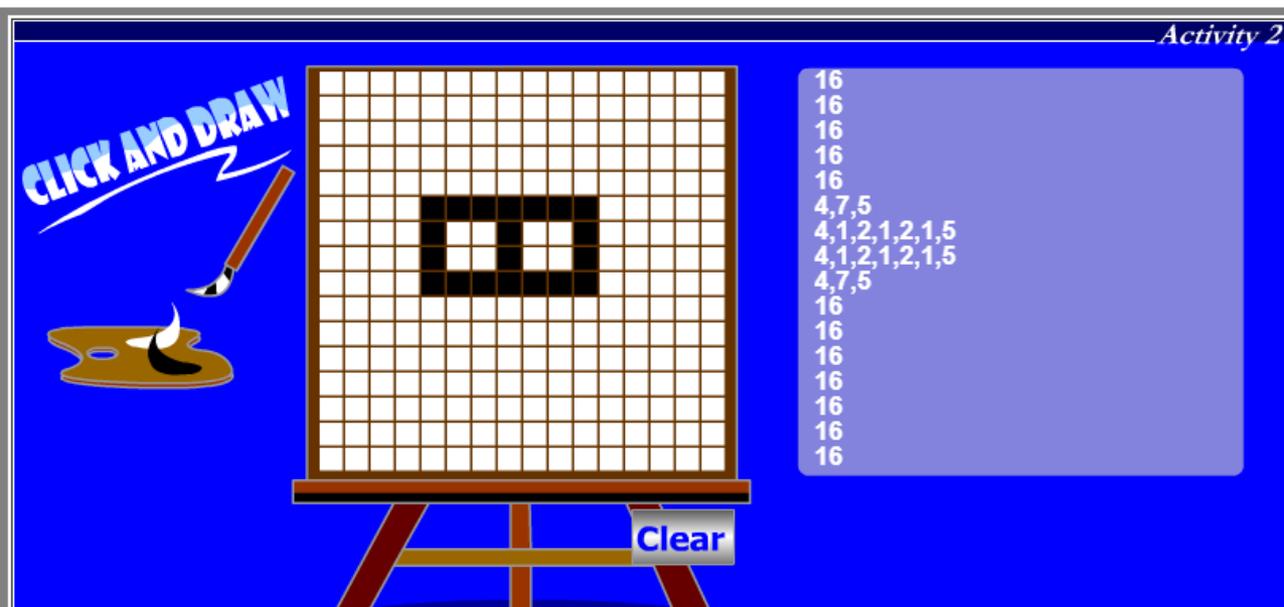
アンプラグド・フラッシュ・アクティビティ

<http://www.info-study.net/> since2003.3.28

ホーム | 情報ノート | 情報数学 | アンプラグド | 手話 | FLASH | 海洋公園 | 自己紹介

コンピュータがどのように絵をあつかっているか、学びましょう。

ホーム > アンプラグド > Activity2



**Activity 2**

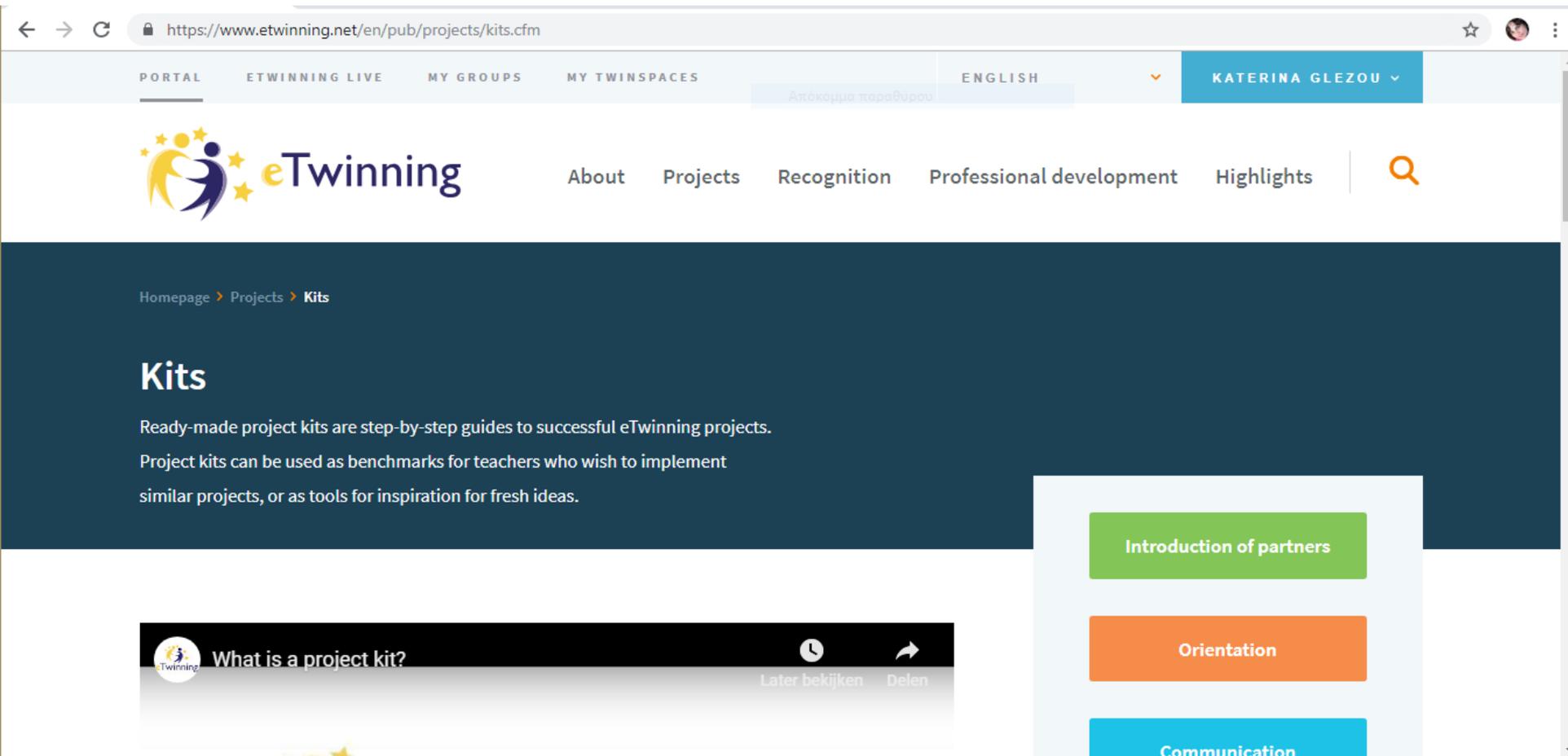
CLICK AND DRAW

16  
16  
16  
16  
16  
16  
4,7,5  
4,1,2,1,2,1,5  
4,1,2,1,2,1,5  
4,7,5  
16  
16  
16  
16  
16  
16  
16

Clear



<https://www.etwinning.net/en/pub/projects/kits.cfm>



← → ↻ 🔒 <https://www.etwinning.net/en/pub/projects/kits.cfm> ☆ 👤 ⋮

PORTAL ETWINNING LIVE MY GROUPS MY TWINSPACES Απόκριση παραθύρου ENGLISH KATERINA GLEZOU

 About Projects Recognition Professional development Highlights 🔍

Homepage > Projects > Kits

## Kits

Ready-made project kits are step-by-step guides to successful eTwinning projects. Project kits can be used as benchmarks for teachers who wish to implement similar projects, or as tools for inspiration for fresh ideas.

- Introduction of partners
- Orientation
- Communication

 Later bekijken Delen

# Thank you for your attention!

## Create, Code, Collaborate & Have fun!

Dr. Katerina Glezou

*NSS Pedagogical Team Member*

[glezou@gmail.com](mailto:glezou@gmail.com)

