Make World, a collaborative platform to develop computational thinking and STEAM

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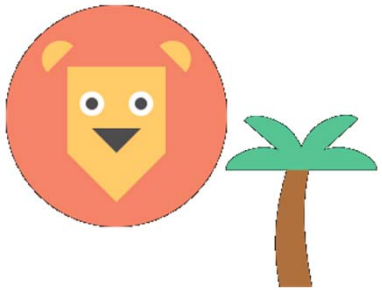
Aristos Campus Mundus | Campus de Excelencia Internacional

HCI 2017 INTERNATIONAL

Why Make World?

STEAM and digital literacy



01011

Dicrease in vocations

Raise in demand

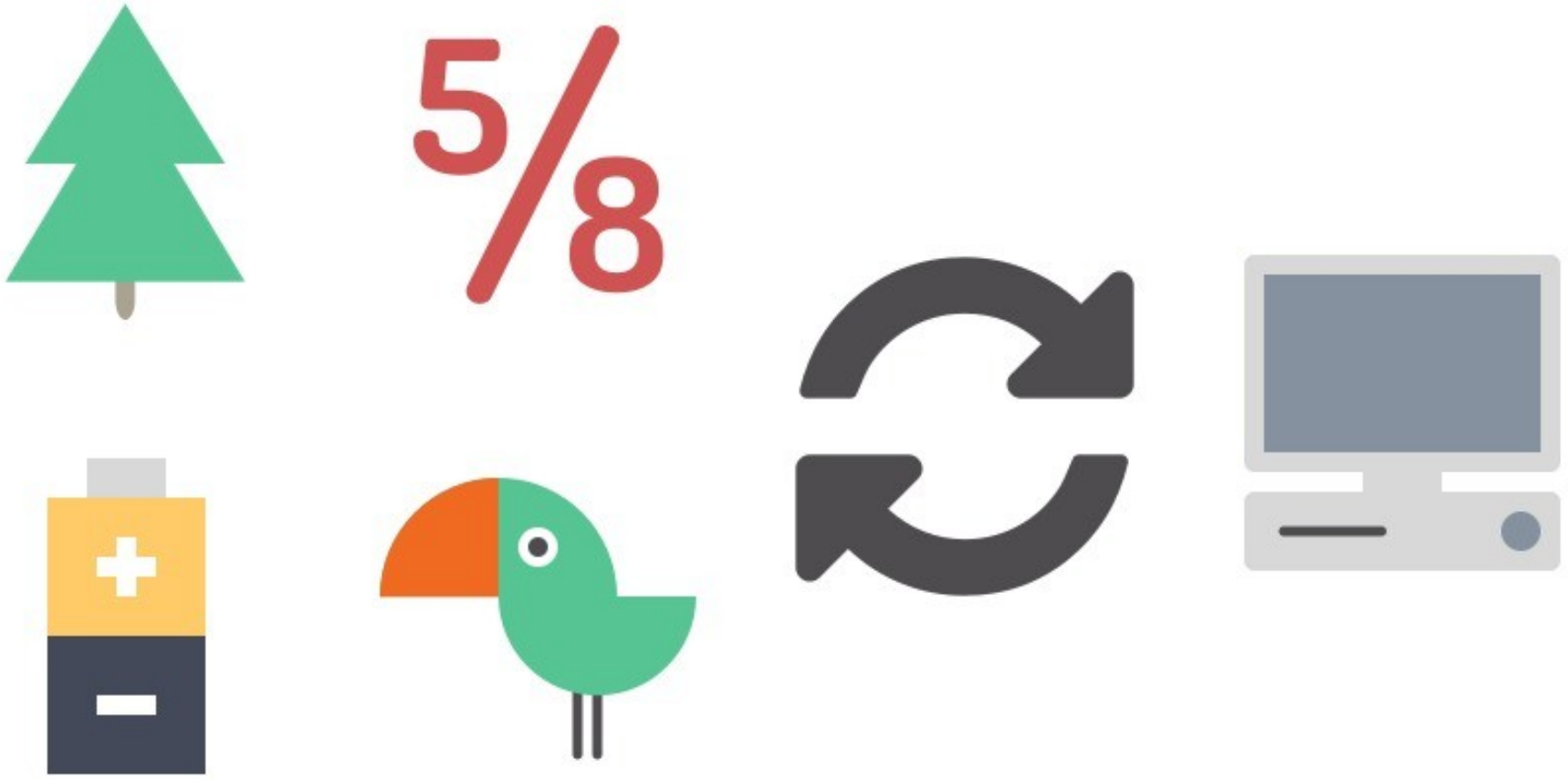
We need children to have a positive attitude towards STEAM

What is Make World?

http://makeworld.eu/

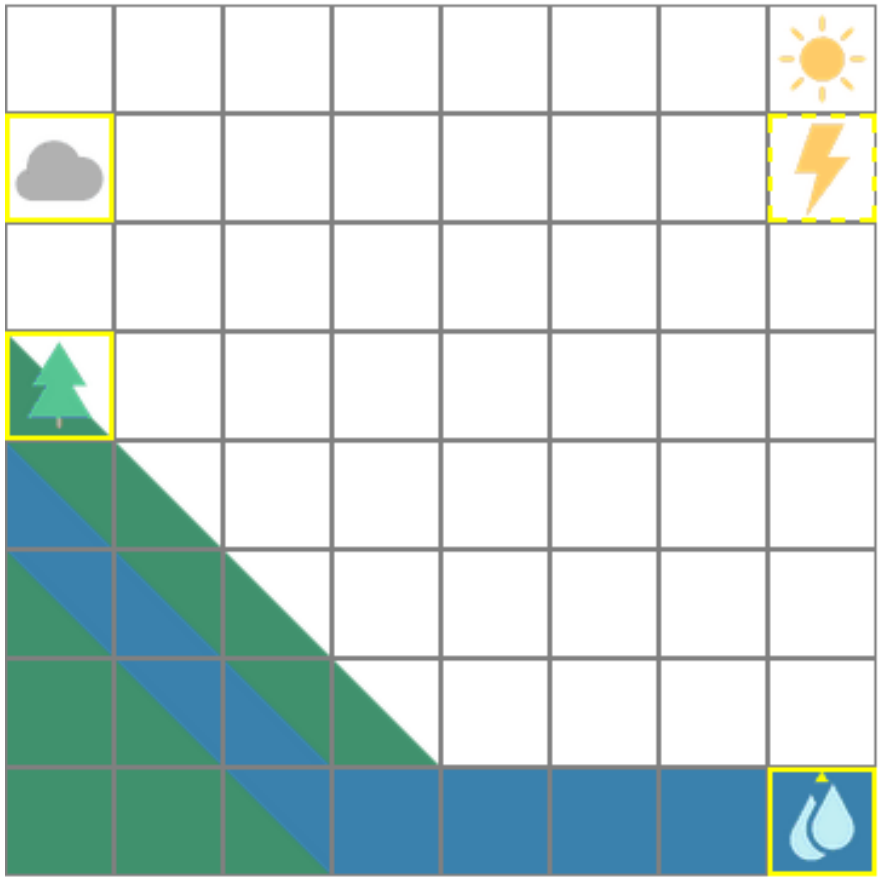
Main goal:

Create a symbiotic relationship between Computational Thinking and STEM areas



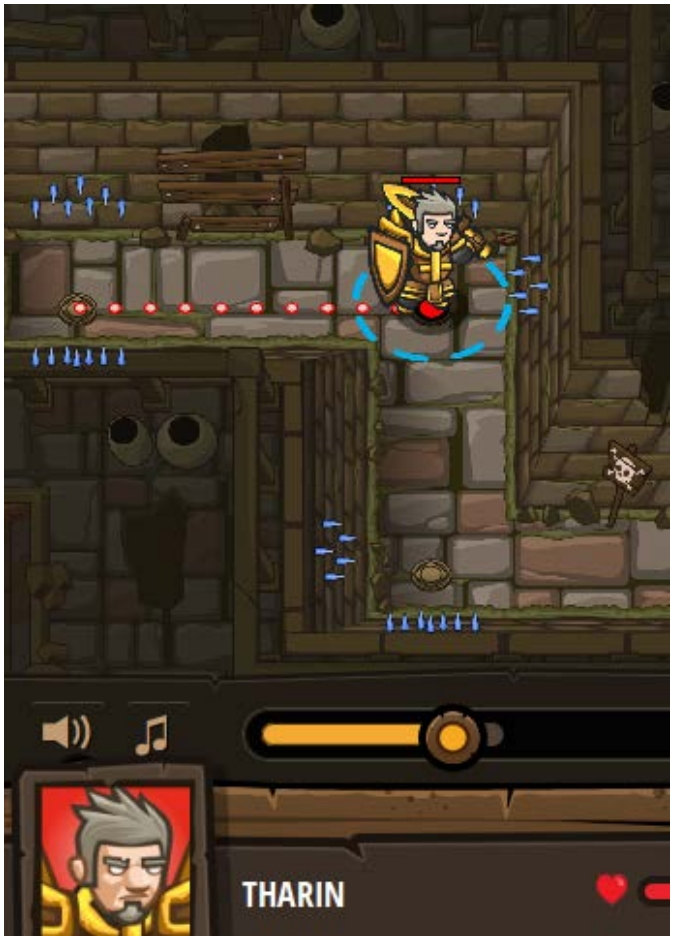
From STEM to Computational thinking

there are lots of STEM-related concepts that involve cycles and systematic procedures

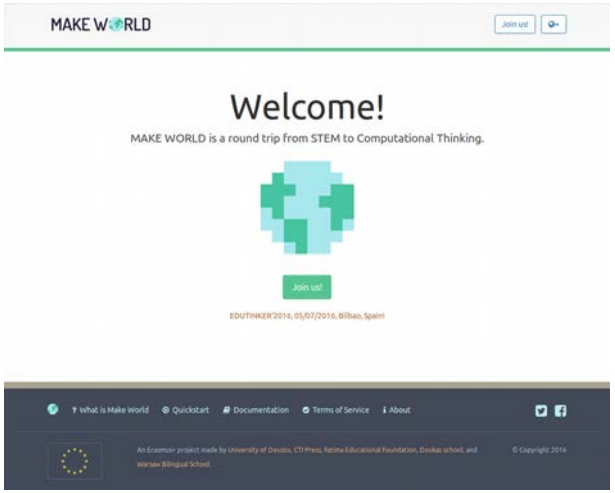


From Computational thinking to STEM

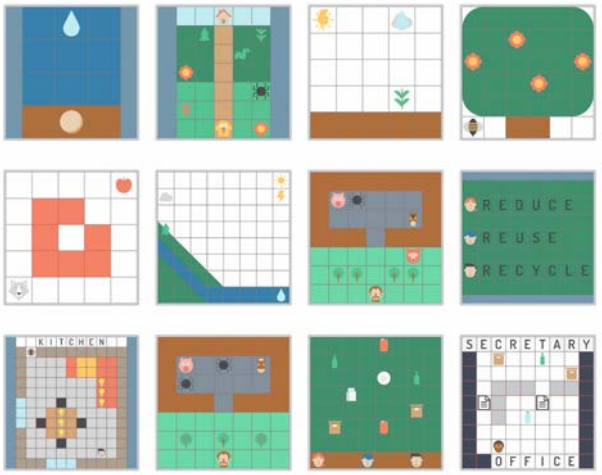
there are lots of platforms to learn computational thinking, but they have little to do with STEM



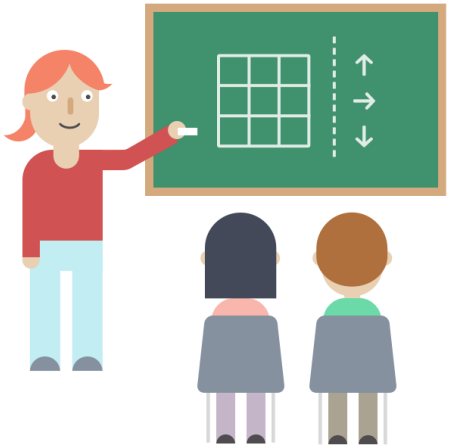
How?



Online platform



Learning resources

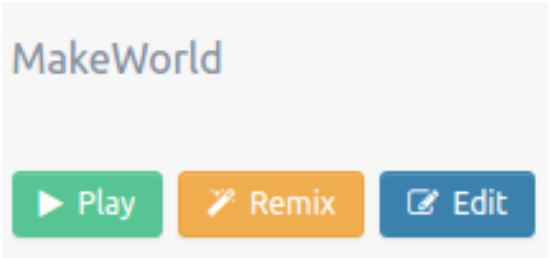


Teachers' guides

Online platform

Multilingual
(en,es,gr,pl,eu)

Gamification
(badges, recommended)



User-generated
content

Gender in mind

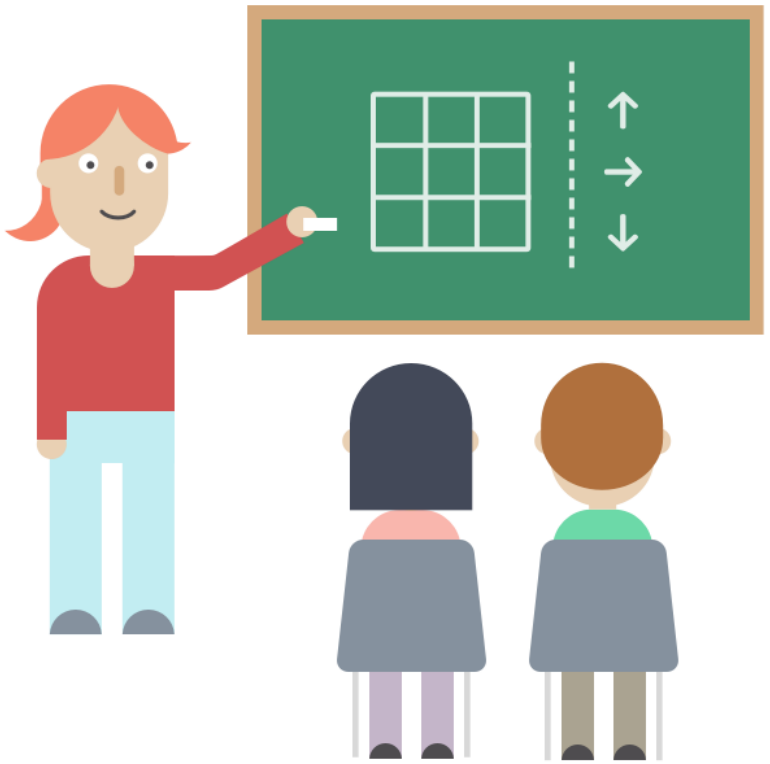
Social

Learning resources

ready to use, STEM-related, multilingual

Teachers' guides

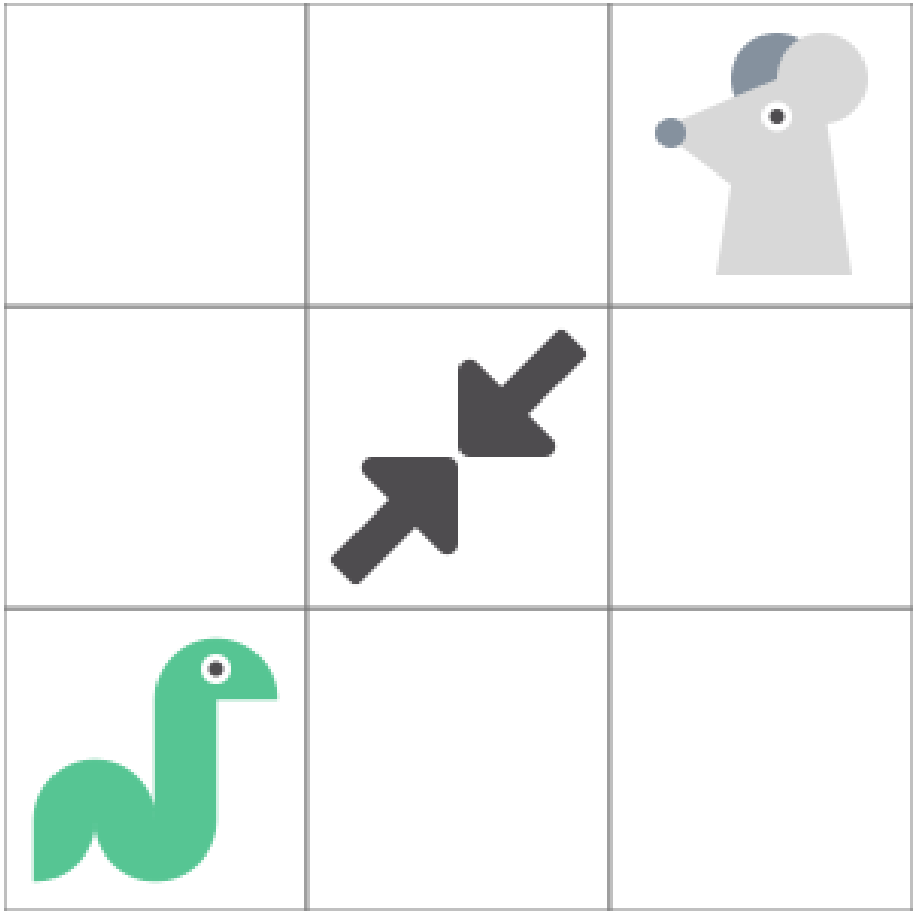
documents, videos, presentations, workshops



Main concepts

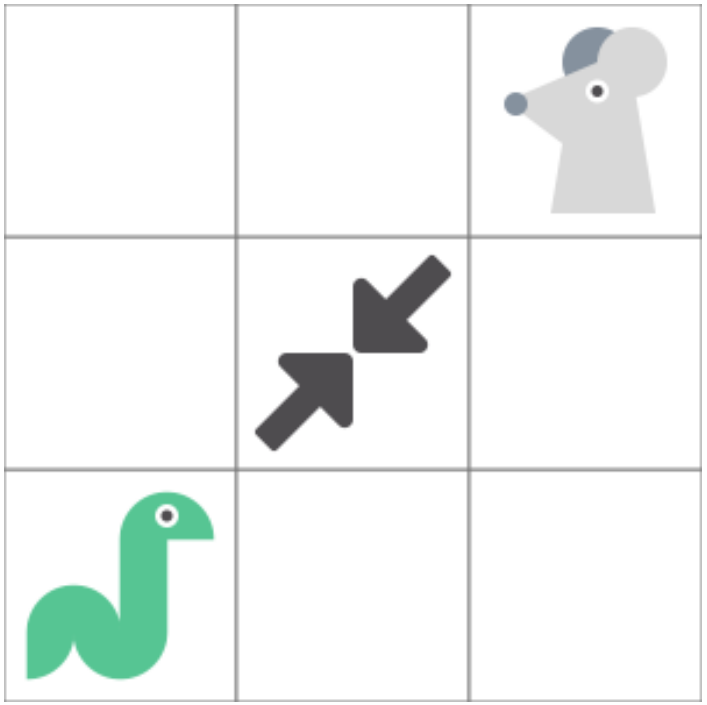
Worlds

2D grid where several characters interact



World's goals

they are met through characters' interactions

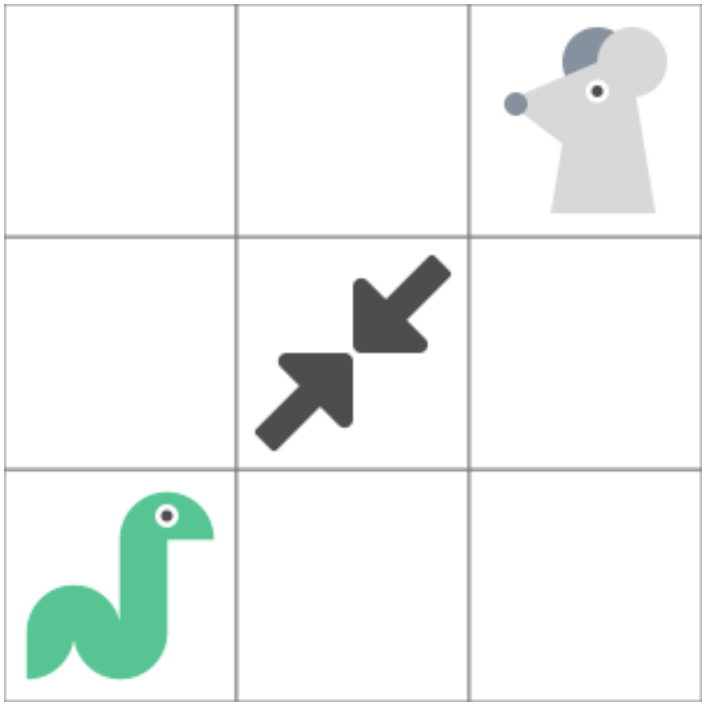


Goals | Events

Catch the mouse

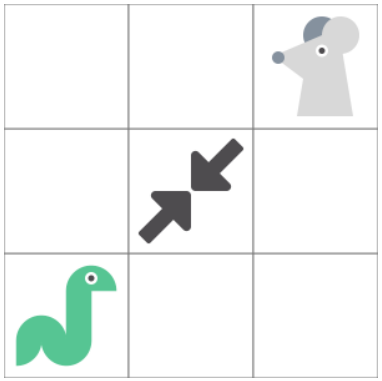
World's events

the rules of the world



KISS: Keep it simple... sweetheart!

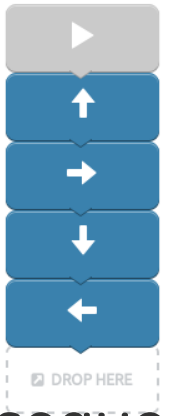
suitable for primary school students



1 character → 1 tile

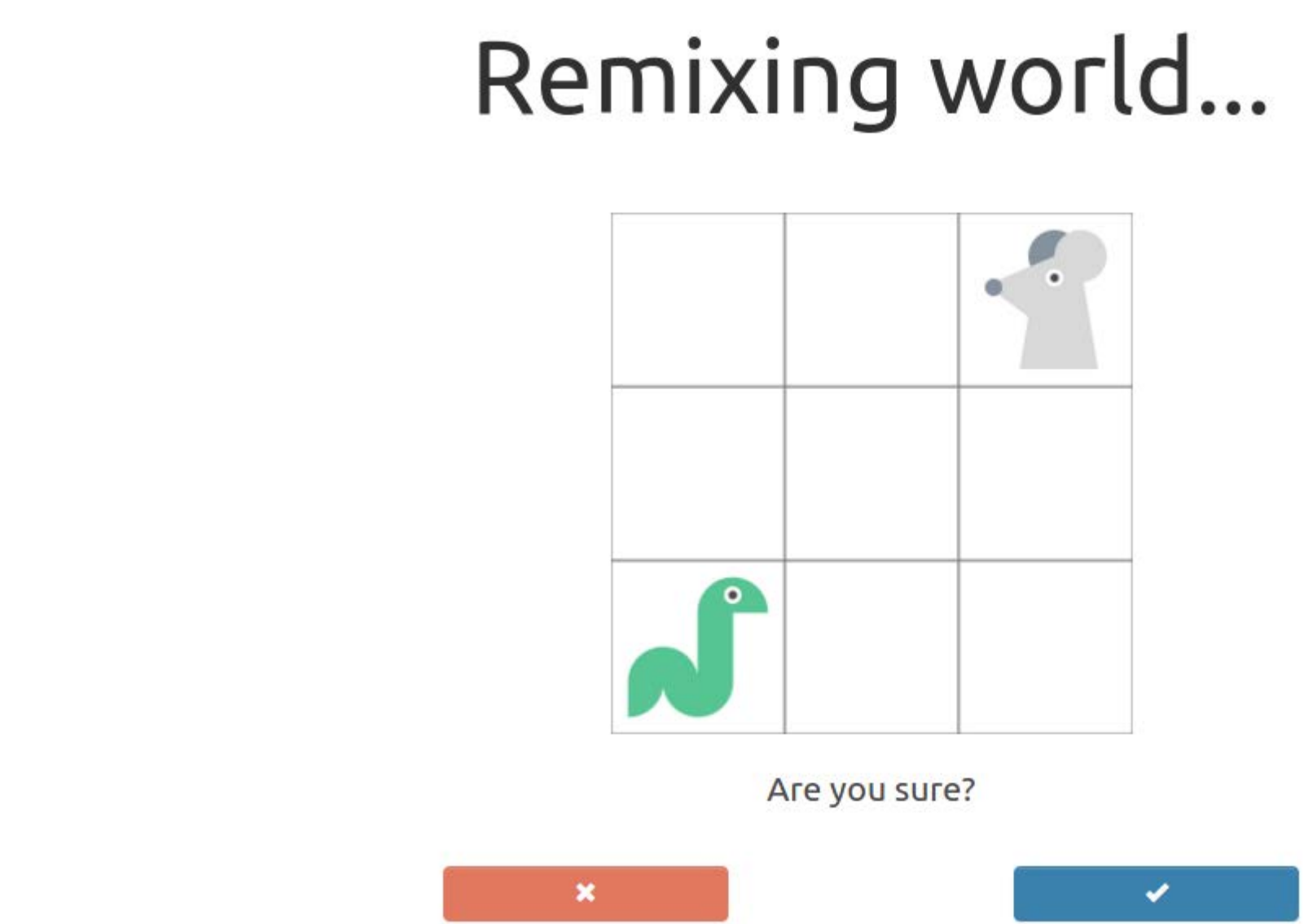
1 action → 1 movement

no reading
skills needed



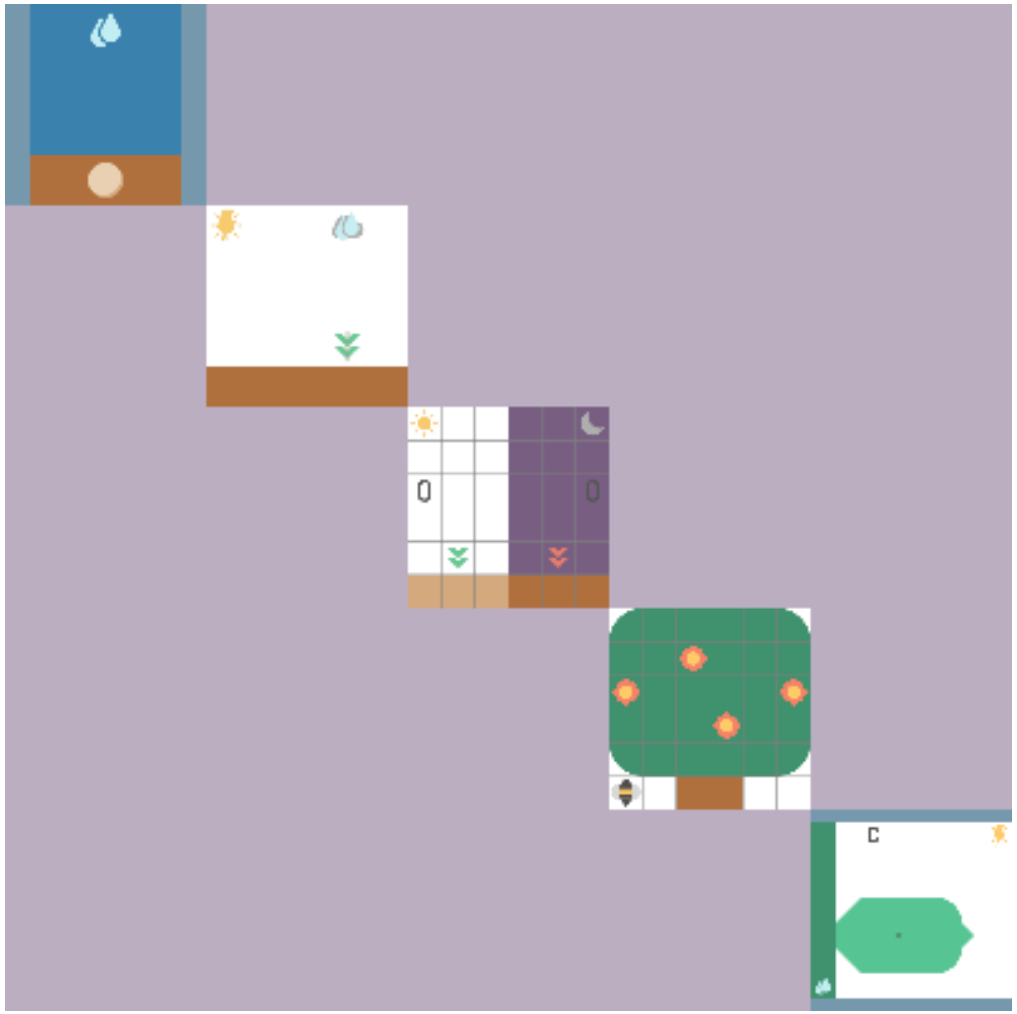
only sequences
and procedures

Users can search, play, comment, like, edit and remix worlds



Stories

sequences of worlds and explanations to create a learning track



Stories

explanations can have questions and choices

What is a plant?

Plants, also called green plants, have cell walls with cellulose and obtain most of their energy from sunlight via photosynthesis. They can be flowering plants, conifers and other gymnosperms, ferns, clubmosses, hornworts, liverworts, mosses and the green algae.

Green plants excludes the red and brown algae, the fungi, archaea, bacteria and animals.

Please, click on the plants of the following list...

Maple

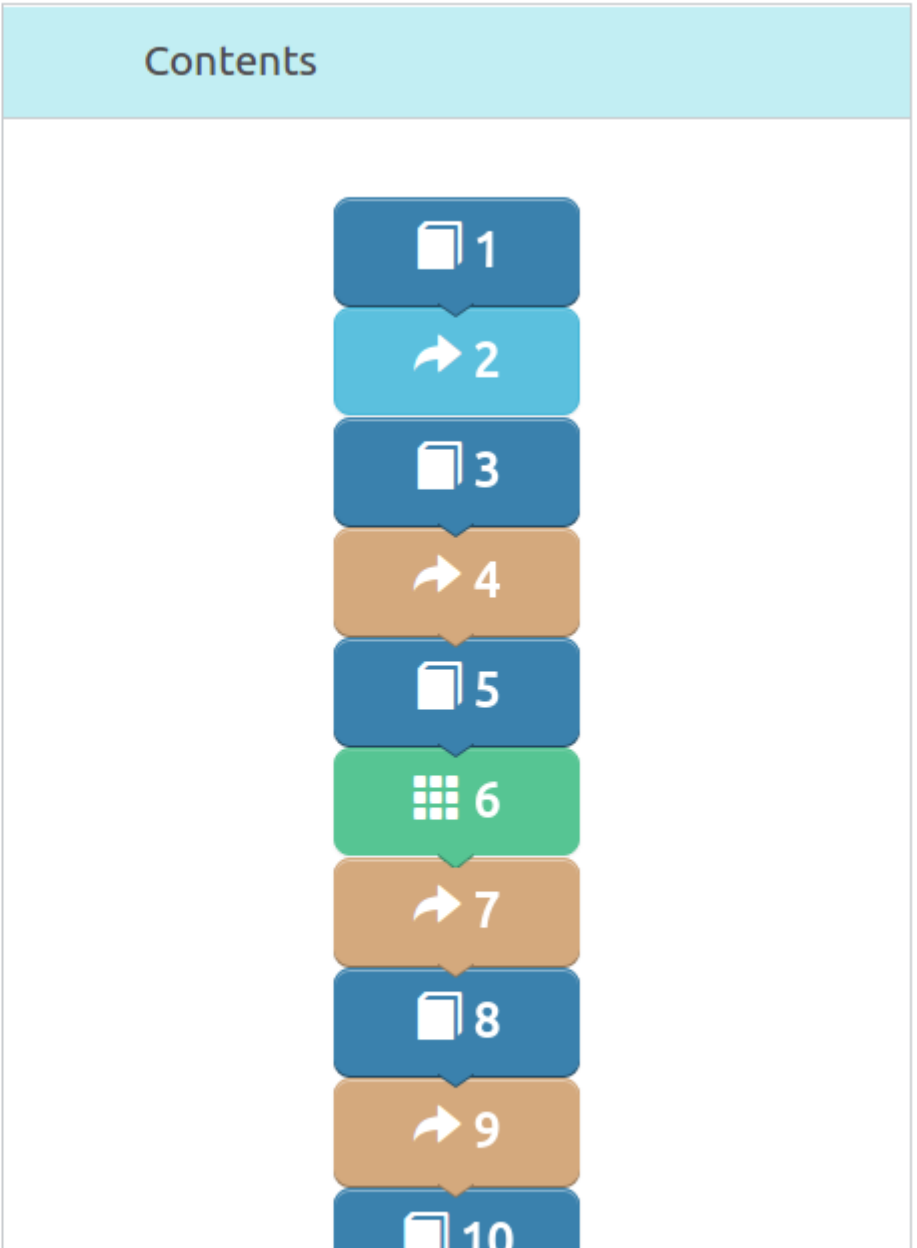
Lion

Daisy

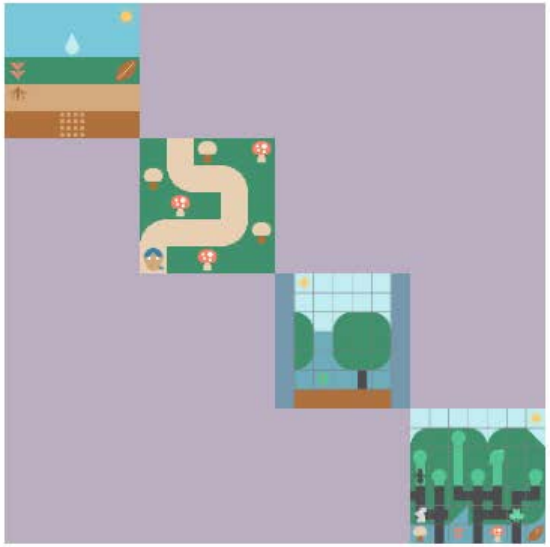
Mushroom

Stories

flow does not have to be linear → retry, extra content, etc. depending on previous outcomes



Users can search, play, comment, like, edit and remix stories



▶ Play

Remix

Edit

Description

Forests are crucial for life in Earth. In this story you will be able to observe and recognize typical organisms of the forest, identify layers of the forest, and learn about processes that take place in it.

Contents

20 explanations (Introduction, Subfloor intro, Subfloor incorrect, Subfloor correct, Calculate seeds 1, Calculate seeds 1 wrong, Calculate seeds 1 correct, Calculate seeds 2, Calculate seeds 2 is wrong, Calculate seeds 2 is correct, Forest floor is not correct, Forest floor is correct, Calculate mushrooms, Calculate mushrooms is not OK, Calculate mushrooms is OK, Calculate height, Calculate height is wrong, Calculate height is OK, Canopy is wrong, End).

4 worlds (The Forest > The Forest > The underfloor, The Forest > The Forest > The forest floor, The Forest > The Forest > The understory, The Forest > The forest > The canopy).

Comments

Write something here...

Post a comment

Very funny!

MariluzGuenaga, Feb 14, 2016 10:04:39 PM ★ 0 ☆ Like

The community

	Spain	Greece	Poland	TOTAL
Educators in workshops	52	70	45	167
Students in piloting (primary school)	255	200	69	524

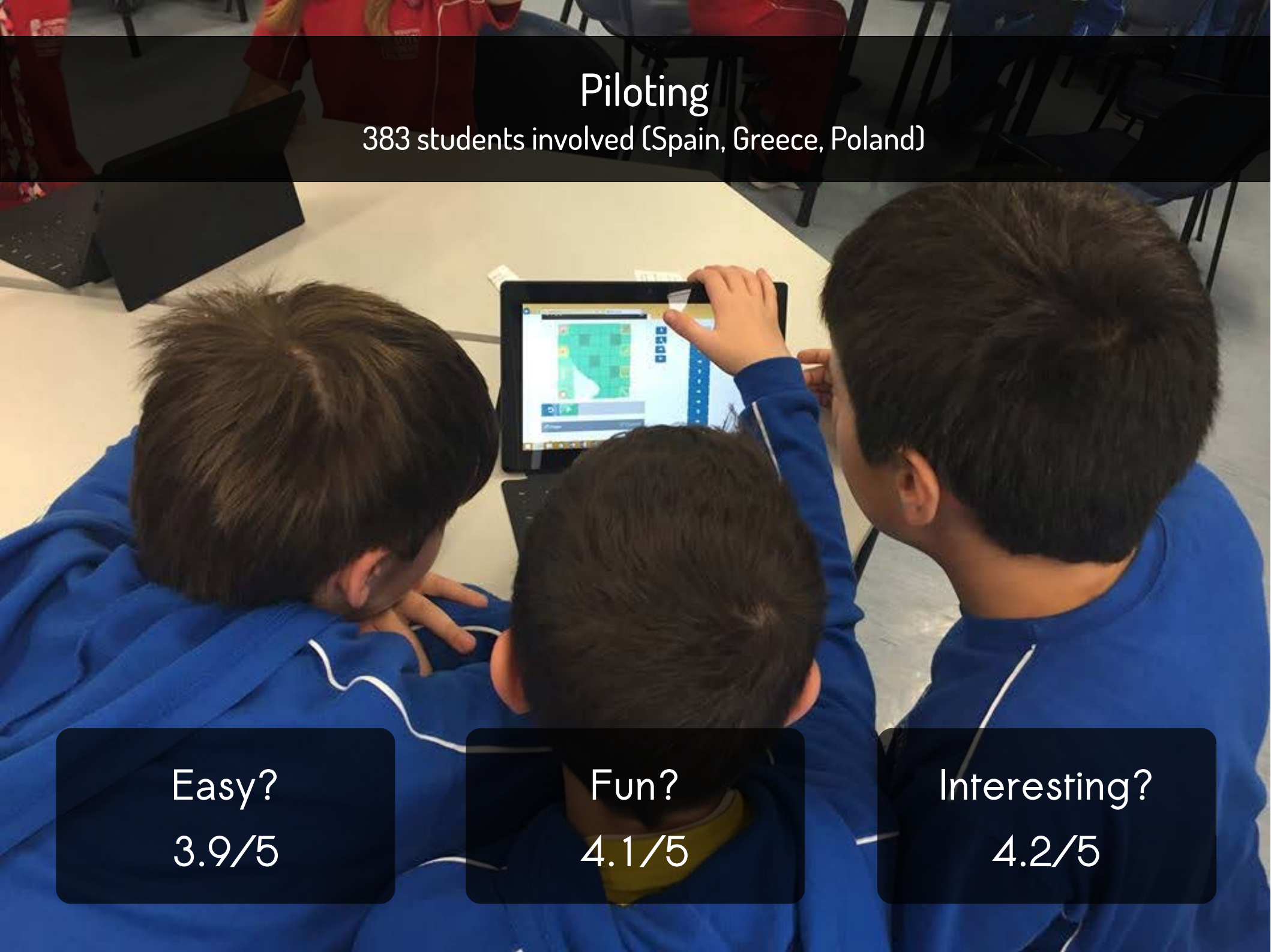
1,330 users (49% female)

670 created at least one world

3,656 worlds created in one year

Preferred language:

- Spanish (48%)
- English (16%)
- Basque (15%)
- Greek (14%)
- Polish (7%)



Piloting

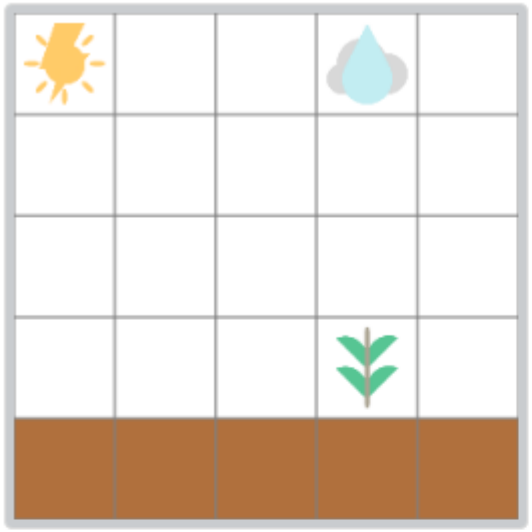
383 students involved (Spain, Greece, Poland)

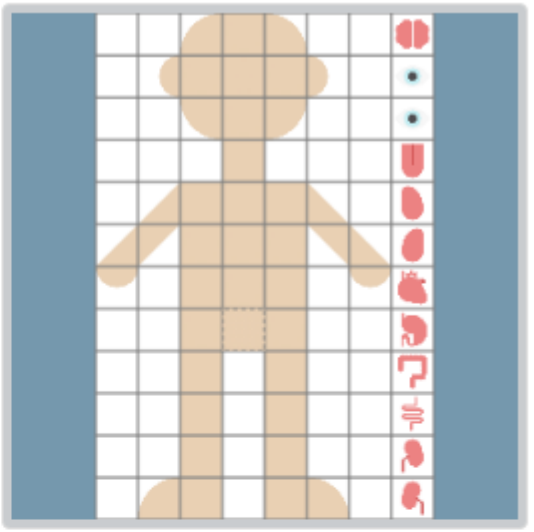
Easy?	Fun?	Interesting?
3.9/5	4.1/5	4.2/5

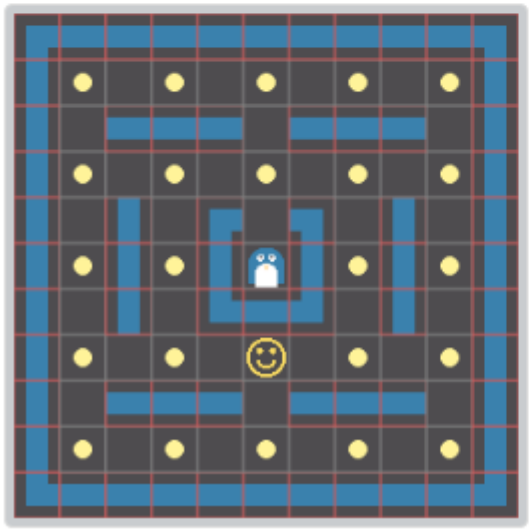
Future steps

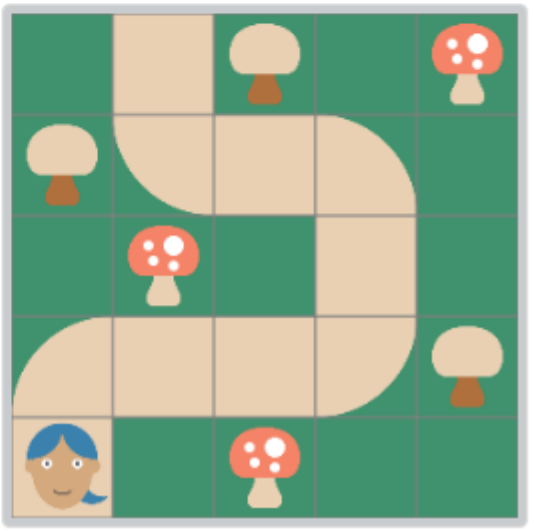
More learning resources

worlds, stories, tutorials, etc.

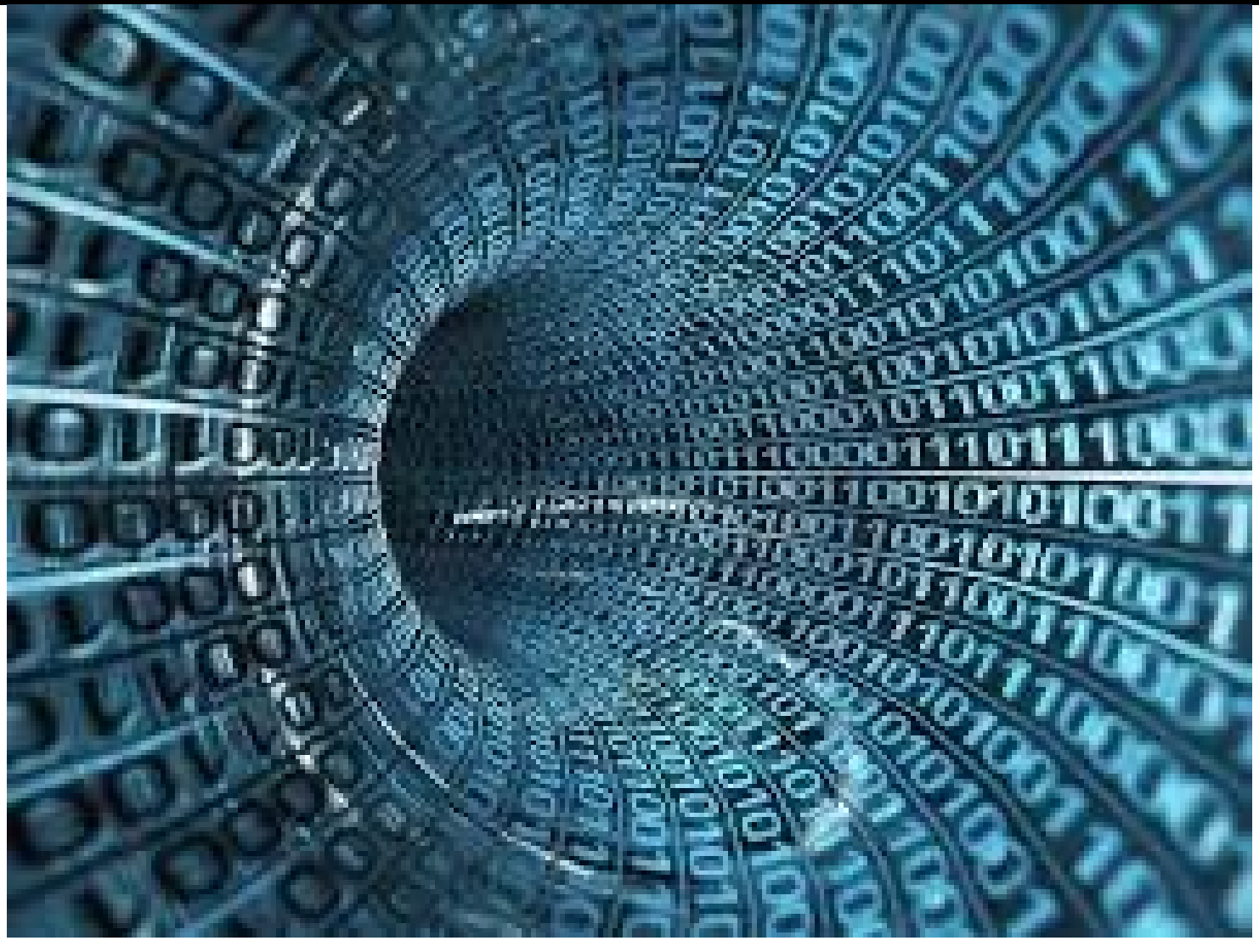








Learning Analytics

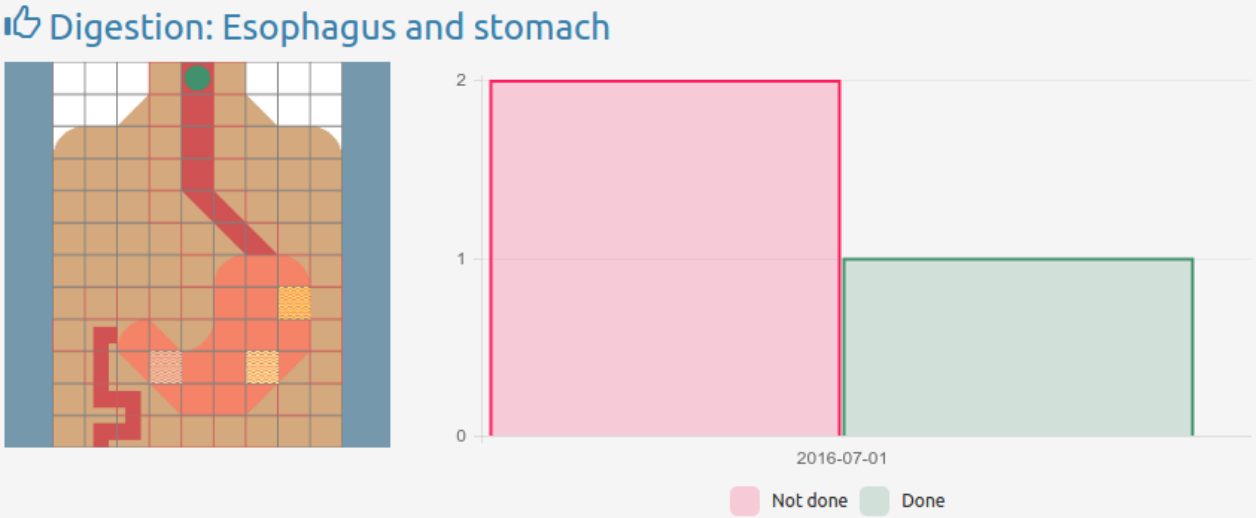


Progress tracking

mentoring, stats, etc.

Stats

Worlds



Make World is free and open source

code is released under a AGPL license

The Make World team

Project partners

University of Deusto

www.deusto.es

Computer Technology Institute & Press "Diophantus"

www.cti.gr

Fundacion Educativa ACI Esclavas SC-Fatima

www.colegioesclavasbilbao.com

Ekpaideutiria Douka

www.doukas.gr

Warsaw Bilingual School Dwujęzyczna Szkoła Podstawowa

www.wbschool.pl

MAKE WORLD

Thank you! Questions? Comments?

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