OPEN CALL GUIDE LINES

European School Contest: Design Your Sustainable 3D Schoolyard!

UPDATED!

introduction

DESIGN YOUR SUSTAINABLE 3D SCHOOLYARD!

Climate change is no longer a distant threat - it is shaping our daily lives. Schools, as spaces where young people learn, play, and grow, can become models of sustainability and resilience. The *VR4Clima* project invites schools to join an international contest where students will use creativity, science, and digital tools to design the schoolyards of the future.

Who Can Participate?

- Students aged 11–14 & 14-18 years old;
- Working in teams of 3–6 with the support of one teacher. Each team must be guided by one teacher/mentor. One teacher can lead more teams, but a student can be part of only one team;
- Schools from across Europe and beyond are welcome.

what is the
CHALLENGE

Teams of students are asked to create a **3D model of a sustainable schoolyard**, reimagining their playgrounds as greener, more climate-friendly environments. Using tools such Tinkercad and Delightex Edu, students can:

- Transform a concrete schoolyard into a green and resilient space.
- Integrate sustainable energy and water-use solutions.
- Select native plants and crops to ensure biodiversity and resilience to natural disasters.
- Think critically about how everyday choices shape a sustainable future.

how can you do that?

STEPS FOR STUDENTS

Learn about your local climate

- Start by checking the European Students' Climate Chart to better understand the climate conditions in your region.

Watch the animations

- View the short animations that explain key climate change topics to prepare for your design task.

Form your team and explore the schoolyard

- Gather a group of classmates who will work with you on the project. Together, visit your schoolyard and carefully observe the space. Look for challenges such as lack of greenery, spots that get too hot, poor water drainage, unused areas, or places affected by wind, shade, or heavy rain. Take notes and photos if allowed.

Identify problems and sketch your ideas

- Imagine you are civil or environmental engineers. Discuss the problems you noticed and brainstorm solutions that would make your schoolyard greener, more enjoyable, and more climate-resilient. Then, using pen and paper, draw a simple sketch of your ideal sustainable schoolyard that reduces carbon footprint.

Start designing in 3D

- Open Tinkercad and begin creating the sustainable elements you planned (e.g., native plants, seating areas, shading structures, water-saving systems).
- Ask your teacher for support and consult our guidelines (link).
- Export your object(s) in .stl or .obj format.

Build your virtual schoolyard

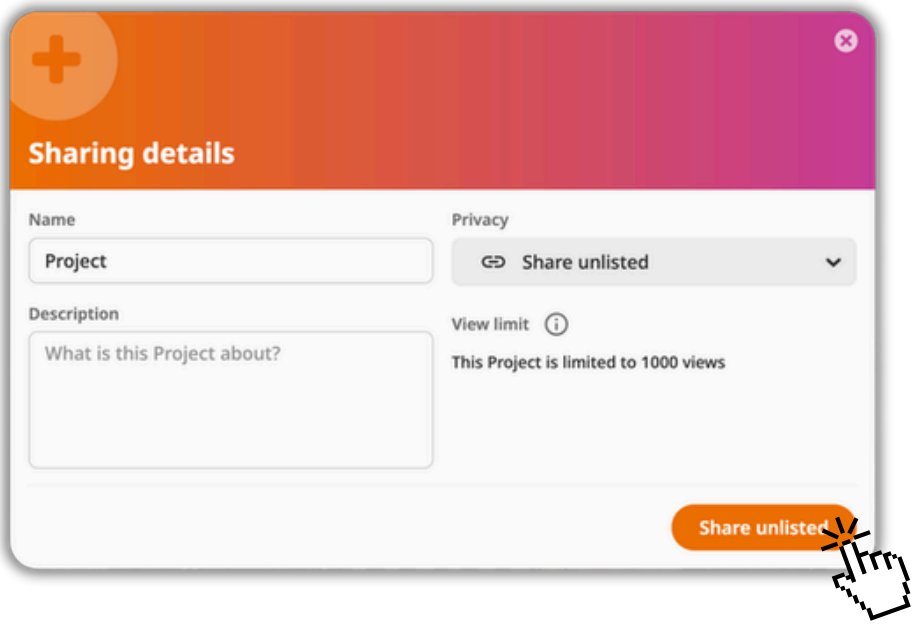
- Open Delightex Edu and recreate the layout of your real schoolyard.
- Import the sustainable 3D objects you designed in Tinkercad and position them in your virtual scene.
- Edit and adjust until your virtual schoolyard reflects your vision of a greener and more sustainable space.
- Alternative: You may design the entire schoolyard directly in Tinkercad and then upload it to Delightex Edu.

Experience it in VR

- Enter your virtual world and explore it using virtual reality (if available), to see how your redesigned schoolyard feels from the inside.

Submit your project

- Send us the link to your final virtual schoolyard together with a short description of your concept and ideas.



what and how to

SUBMIT *

CLICK HERE TO OPEN THE SUBMISSION FORM

prepare:

3D SCHOOLYARD MODEL

Link for your project in ***Delightex edu.***

YOUR PROJECT IDEA DESCRIPTION

- Your teams, teachers and schools details.
- Short description of concept idea, explaining the design choices and sustainability features.
- Additional information.

what is the TIMELINE

Launch of the call
Read the contest propositions and start gathering your team!

15. DEC

~~30. MAR~~
20. APR

Submission deadline
By midnight Central European Time (GMT+1)

Online consultations
If you have questions or need support - we are be available for online consultations.

~~20. APR~~
11. MAY

Announcement of winners
Winners will get the email and list will be published on our website.

evaluation

CRITERIA

Inovation

We are looking for original solutions for improving the school yard's sustainability, creative use of Tinkercad designs, fresh approaches to environmental challenges (e.g., water use, shade, biodiversity, student wellbeing) and imaginative design choices that show thinking beyond typical playground layouts

Sustainability & Environmental Impact

Use of eco-friendly solutions, such as renewable energy features (solar, wind), water-saving systems, recycling points, or green areas. Support for biodiversity, e.g., planting native species, creating habitats for insects, birds, or small animals. Efficient use of resources, such as designing low-energy structures. Climate awareness, showing how the yard addresses heat, shade, flooding, erosion, or other climate-related challenges.

3D Design & Technical Quality

Correct shapes, alignment, proportions, and clean geometry. Realistic structures, thoughtful placement and well-designed sustainable elements. Effective importing and integration of Tinkercad models into Delightex Edu (correct scaling, positioning, and functionality in the virtual environment).

Teamwok

How well the did student teams work together throughout the design and creation process. Students should demonstrate shared responsibility, good communication, discussing ideas, giving feedback, and making decisions together, fair division of tasks, such as research, 3D design, virtual world building.

JURY

Mladen Šljivović (Serbia)

Mladen is teacher of physics and an internationally recognized STEM educator, known for innovative, project-based teaching and strong student achievements in national and international competitions. He is the recipient of major education awards including the Serbian “Prosvetitelj” prize (2024), the St Sava Award by Ministry of Education Serbia (2022), and the title of Best Educator in Serbia (2018), as well as a STEM School Label Expert Ambassador (2021).

Isidora Čalija (Ireland)

Isidora is an architect and exhibition designer. With a background in architecture and experience in spatial design, visual communication, and science communication, she has contributed to projects connecting design, education, and public engagement. Her work focuses on translating complex ideas into accessible and engaging formats, with a strong interest in the role of design in shaping inclusive and sustainable environments.

Zoi Mammi (Greece)

Zoi is a geologist with a great experience in environmental education. She has been leading the *Center of Environmental Education of Stylida - Ypati* and is currently working for the *Center for Innovation of Education of Central Greece*.

Manolis Voutsakis (Greece)

Manolis is a project management consultant and production & management engineer at EPU of the Decision Support Systems Laboratory School of Electrical and Computer Engineering, National Technical University of Athens (NTUA).

Vasileios Chioktour (Greece)

Vasileios is a physicist working in public secondary education. He holds an MSc in environmental physics and PhD from the University of Thessaly (UTH). He is post doctoral researcher at UTH.

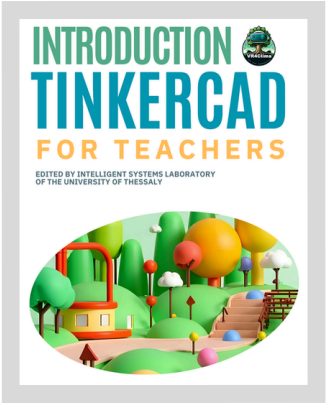
RESOURCES

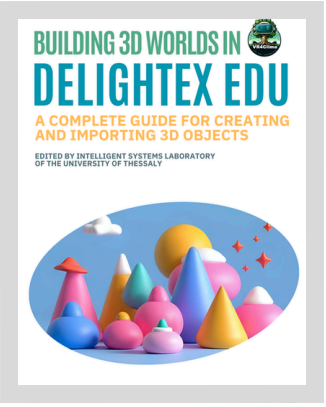
Europe's Climate Map for Students

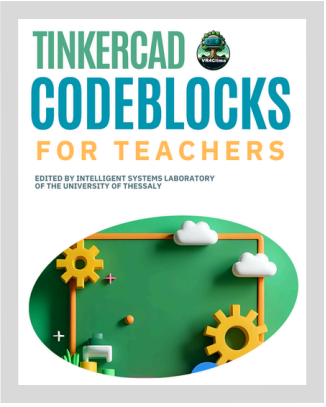
Student-friendly map designed to help young learners understand Europe's climate zones and how they vary across different regions. The map uses bright visuals and simple classifications, making it easy for students to learn how climates affect weather, agriculture, biodiversity, and daily life.

Toolkits

These three practical toolkits support teachers in introducing 3D design, coding, and virtual worlds into everyday classroom practice. Educators can guide students from creating sustainable 3D models in Tinkercad, through coding designs with Codeblocks, to building and experiencing immersive learning environments in Delightex Edu. Together, the guides enable project-based, STEAM-focused learning that connects creativity, technology, and sustainability in an accessible way for all teachers.







RESOURCES

VR game

Step into a virtual schoolyard and turn it into a greener, smarter place! Choose plants, manage water and energy, and see how your decisions affect sustainability and climate resilience. Play on PC or in VR, earn points for smart choices, and learn how real-world actions can shape a better future.

Animations

VR4Clima YouTube channel where you can watch 10 amazing animations exploring diverse topics like: Science behind Climate Change, Biodiversity, Sustainable materials in our Schooldyards etc. Maybe they can inspire you to further investigate how your schoolyard can look like!

VR4Clima
Safe · Smart · Sustainable Future

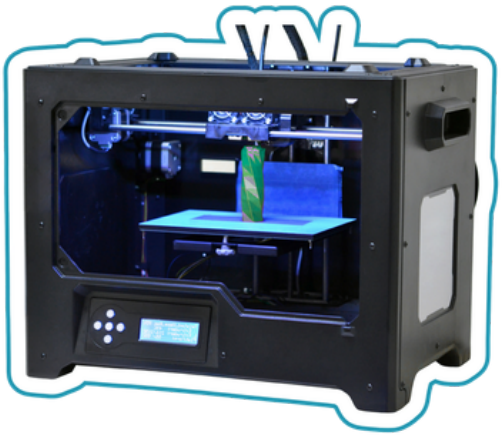
More info you can find on our website!

/VR4clima

@vr4clima

AWARDS *

I AGE CATEGORY:
3D PRINTER
* valued up to €500



II AGE CATEGORY:
VR HEADSET
* valued up to €500

* cross-category

SPECIAL MENTION:
delightex 6-MONTH LICENSE

* in both categories

2nd-PLACE TEAMS:
BOOK ON CLIMATE CHANGE AND SUSTAINABILITY

THANK YOU

Best of luck with your submissions!

For any questions - contact us via email **vr4clima@gmail.com**