



TOPIC 12

BUILDING THE MERGE CUBE



We learn to apply augmented and virtual reality in our technology class.
2018-1-ES01-KA201-050550





ACTIVITY SUMMARY FORM

Title	Building Mergers Cubes
Abstract	In this activity, students will build Merge cubes to be used in AR and VR experiences at school.
Topic	Topic 12- Activity 12.1: Merge Cube
Author/s	Paidos School - Chelo Quince Blay

DIDACTIC OBJECTIVES

- Understanding the differences between VR and AV.
- Learning about different 2D and 3D image formats: .fbx, .obj, .dae, stl, etc.
- Knowing how to convert different 3D formats and what software is needed to work with VR.
- Searching EDU Merge Cube projects. (AR)
- Creating Merge Cubes.
- Trying out different apps for AR

Education Level

12-14 years



6-12 years



AR Technology



VR Technology



_____ Technology





ACTIVITY SCOPE

This activity is integrated into the area of Artistic Visual Education and IT.

ACTIVITY STATEMENT

Discovering the world with virtual reality.

ACTIVITY DESCRIPTION

During several sessions, the students of 3rd of ESO built cardboard Mergen Cubes from different sizes. With these cubes, the students of Primary Education could work with different AR apps.

After that primary school students carried out different activities with Merge Cube. These activities were selected by secondary school students in order to figure out and to learn about the AR communities and their educational possibilities.

RESOURCES

- Internet
- Computers
- Printer
- Merge Cubes
- Mobile devices
- QR code reader.
- Cardboard



STUDENTS' EVALUATION

Co-assessment.

To evaluate the students, the co-evaluation will be practiced. They will be in charge of verifying that the Merge Cubes work by testing the projects selected by their colleagues. In this way, cooperative learning is encouraged.

BIBLIOGRAPHY

Merge Cube: <https://drive.google.com/file/d/1Kn2Ga-dLSZ4qnpjPF8lhPOWflmm4iXY/view>
<http://online.fliphtml5.com/swrai/gthr/>

[Merge Miniverse | VR & AR Apps & Experiences curated by Merge](#)

Video tutorial, Introducción a Mergecube y cómo crear experiencias de aprendizaje de realidad aumentada. - YouTube

QUE ES MERGE CUBE - YouTube

SCALABILITY

The activity to be developed is designed for 2 ESO students who create the material so that it can be used at different levels both in primary and secondary school.

Completing the puzzles and getting the information to complete the file for each painting. For each completed puzzle, a QR will be given to view the painting.

At higher levels, below are some examples of activities that can be proposed: ordering the QR codes chronologically, grouping the paintings by artistic styles, techniques ...



MORE INFORMATION

All the information that we have researched as well as the templates of the cubes and a list of educational apps are shared in the folder so that they can be used by the different schools.

FLOW IMPLEMENTATION

1. Viewing the explanatory videos of Merge Cube.
2. Building of the cardboard cubes using different sizes.
3. Selecting Merge Cube apps.
4. Exploring apps with primary school students.



ACTIVITY SUMMARY FORM

Title	Stories with the cube merge
Abstract	The Merge Cube works with Merge EDU, a hands-on digital learning platform that helps students learn science and STEM effectively with 3D objects and simulations they can touch, hold and interact with. The aim of this activity is to simulate different childrens'stories with Cospaces and interact with them.
Topic	Topic 12- Activity 12.2: Cube Merge
Author/s	Paidos School - Ana María Ruiz Palma

DIDACTIC OBJECTIVES

- To represent different children stories.
- To learn how the cube merge works and create content anywhere on, inside and around to develop your own story.
- To develop the creativity and the skill to organize and synthesize the main ideas.
- To improve the digital competency using the Merge cube with Cospaces.

Education Level	12-13 years <input checked="" type="checkbox"/>	Others <input type="checkbox"/>
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AR Technology <input type="checkbox"/>	VR Technology <input checked="" type="checkbox"/>	_____ Technology <input type="checkbox"/>
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ACTIVITY SCOPE

his activity is embedded in the animation of scenes to create a story.

ACTIVITY STATEMENT

Create different scenes of the selected story.

ACTIVITY DESCRIPTION

This time, we are going to show you one of the options that CoSpaces and Merge Cube offer us to work with augmented reality in the classroom. The main advantage of the integration between these two tools is that they allow our students not to be mere consumers of AR, but also to create it in a simple and intuitive way.

In this activity the students have to:

1. Choose the story which will be represented
2. Organize and synthesize the information that has been collected.
3. Design and code the faces of the merge cube.

RESOURCES

- Cospaces Edu.
- Mobile devices
- Tablets
- Merge Cubes



STUDENTS' EVALUATION

Assessment criteria:

- How the students search for the different object in 3d on the internet.
- How to organize and prioritize tasks by themselves.
- Creativity, originality of the story
- Attach audios to enrich the user 's experience.
- Programming and animating of the different Merge Cube'faces .

BIBLIOGRAPHY

<https://cospaces.io/edu/>

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

<https://drive.google.com/file/d/1Kn2Ga-dLSZ4gnjPF8lhPOWflmm4iXY/view>

Paint 3D

SCALABILITY

This activity can be done with 2nd ESO students with more programming.

MORE INFORMATION

All the documentation of this activity is share on the google drive folder.



FLOW IMPLEMENTATION

1. To chose what stories to represent
2. To find the characters and objects in 3D to make the story.
3. To have an account in Cospaces.
4. To create the project in Cospaces + Cube Merge.
5. To program each one of the Merge cube'faces.
6. To share the project.