



360° virtual tour creation

** A CoSpaces Edu Pro license plan is needed for this lesson.*

Lesson complexity: Intermediate

Grades: Grade 4 and up

Subjects: Social sciences, Geography, History, Languages

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Introduction:

The objective of this lesson plan is to create different Virtual Reality brochures or touristic guides in which students show their knowledge of their community, their city, a culture, or a civilization. This lesson involves getting students to do a significant amount of research and data collection, organize the information they gathered, and decide how to best present it in narrated or written format.

CoSpaces Edu allows students to use 360° degree images onto which complementary information can be added through different types of icons or shapes available on the web or on the platform itself.

The use of this type of visuals and the creation of 360° walks or itineraries is absolutely fantastic for class. It offers a way of bringing students closer to distant or nearby places and offering them a full view of the place. We can use this format to emphasize many details, offer additional information, add pictures, etc.

What has caught our attention the most during the virtual tours is:

- Its interactivity: It allows you to travel between photos in 360°.
- Its points of interest: It makes it possible to include clickable zones capable of opening additional pieces of information like photos, text, or audio.
- Its flexible visualization: It offers different types of visualization: standard navigation on tablet or computer, gyrosopic mode, VR mode or AR mode.

It is a useful tool to work in an integrated way in different areas of the curriculum. In language classes we can imagine them creating wonderful descriptions or stories set in those places, in artistic creating different compositions based on those locations, in social science showing historical places and facts...



Benefits:

- Enable students to discover and explore destinations outside of the classroom without having to leave school
- Motivate students with new technologies
- Encourage creativity

Activity examples:

First session:

1. Introduction (approx. 10 minutes): Discussion about guided tours
 - Ask your students what kind of guided tour they have participated in: museum tours, natural park tours, library tours, city building tours, school tours or a vacation related tour...
 - What aspects were most highlighted by the guide?
 - What details did the touristic guides include when describing the places they were at?
2. Show students an example of virtual trip in CoSpaces Edu (approx. 5 minutes)
 - [A Coruña City Tour](#)
3. Decision time (approx. 10 minutes): Explain your students that they will be playing the role of a tour guide as they create their own digital travel tour.. Students must decide the place(s) they would like to include in their 360° tour. The project will also include a narrated voice-over highlighting important information and interesting facts about the places.
4. Creation time (approx. 10 minutes): Create a quick storyboard on a piece of paper or on your tablet/laptop.
5. Show your drawing to your classmates and explain them what you created (approx. 10 minutes).



Second session:

1. Students can work in pairs or in small groups (approx. 50 minutes): Students research the site they selected and define the areas they want to focus on. They will have to look for 360° photos to create their virtual tour with. You can provide different resources to them:
 - Downloading them from the web, for example on Flickr.
 - Creating their own 360° photos using Street View.
 - Using a 360° camera to take their own 360° photos.
 - Downloading them from iStreet view.
2. Additionally, you can ask your students to think about the location of different specific points of interest throughout the tour.
3. Your students can create a folder in Google Drive or a similar cloud platform to store the different files to use in their virtual tour: 360° photos, texts about their points of interest, photos, audio recordings, etc.

Third session:

1. Students then create their virtual tours in CoSpaces Edu (approx. 50 minutes).

Fourth session:

1. You can then visualize their projects with your students in VR or AR mode or even on the MERGE Cube, if you have this possibility. This is also a good time to give feedback and let students make final improvements to the project.



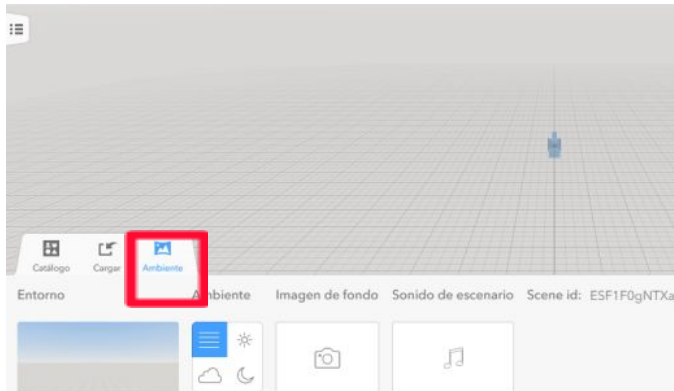
Creation guide

1. You will first need to gather 360° images to create your virtual tour with.

Where can I find 360° images?

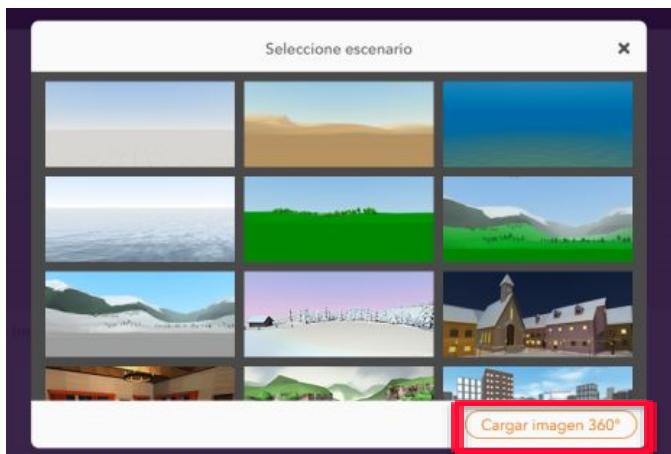
- On the web - Flickr: equirectangular images:
www.flickr.com/groups/equirectangular
- On other free websites:
 - o www.freegreatpicture.com/seamless-360-degree-panorama
 - o pixabay.com/en/users/pixexid-4729217/?tab=latest
- Creating them from your mobile device (using Street View)
 - o [iOS](#)
 - o [Android](#)
- Using a 360° camera
- Downloading them from Street View Download 360:
svd360.istreetview.com
In this case you will need to install a file onto your computer.
Visit iStreetView.com and follow the [instructions](#).

2. Then, upload your images to CoSpaces Edu. Here's a tutorial to help you:
youtu.be/gOvr15jILjk



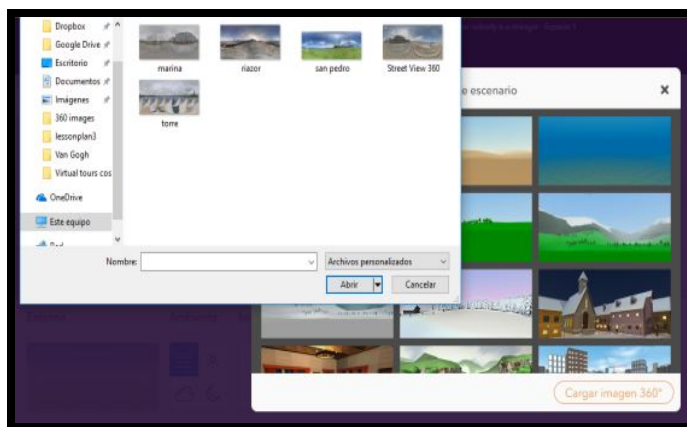
Go to “My Spaces” from your CoSpaces Edu account and create a new space.

Click on the “Environment” tab to upload your first 360° image as the environment of your first scene.



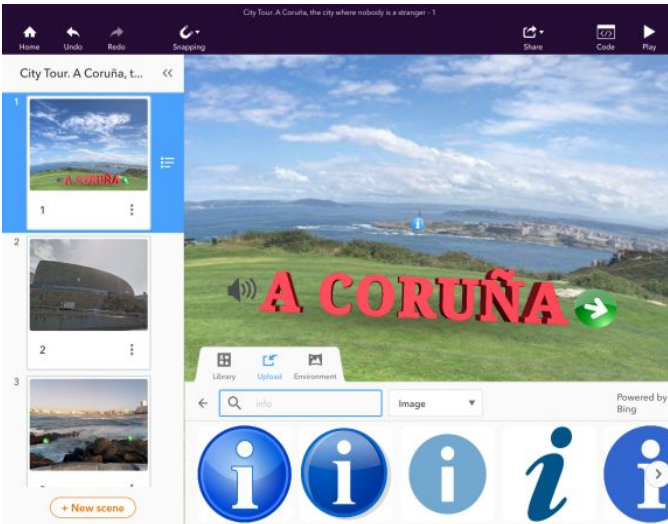
Select “Environment” and click “Upload a 360° image”.

It is important to plan the order of your scenes in advance as you will place your 360° images in the order that you have defined for your virtual tour itinerary.



Select the 360° images you would like to import into your space and upload them.

You will then be able to use these 360° images as the environment of your scenes.

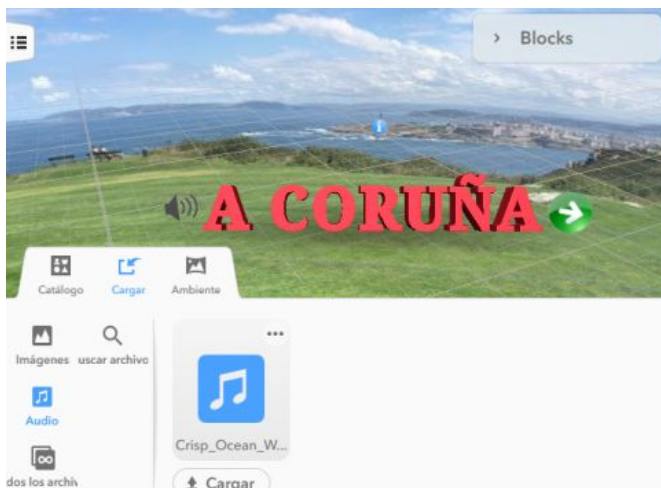


Add POI (points of interest) related to this place onto your 360° photo.

You can look for .png icons like the ones below directly in CoSpaces Edu and simply drag and drop them onto your scene.



You can also create titles with words in 3D in Tinkercad and export them as .obj or .stl files format ("A Coruña"). A Zipped folder is created. You must extract the files and drag them to CoSpaces_Edu.



Add sound or music or narrated voice to your project. Remember to search for music with a Creative Commons license.



Once we have the 360° image and the icons ready in the scene, we can use the coding feature to add information and make the project interactive.

Make sure that you have named your item.

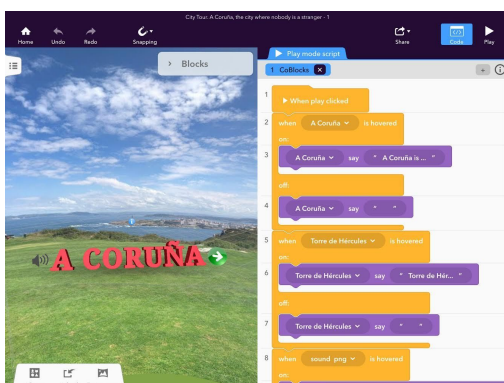
This is done by double clicking the object and selecting the name panel. You'll see why the name is important when we begin coding.

Here, you will also need to activate the "Use in CoBlocks/Blockly" option.



You can code in CoBlocks, Blockly or JavaScript. CoBlocks is the visual block-based programming language in CoSpaces Edu. With CoBlocks, you code by a simple drag & drop process.

You can use CoBlocks on the web on your laptop or code on your tablet with the CoSpaces Edu mobile app! More information on CoBlocks [here](#).



Select "Events" and drag the "On hover of" block. From the "Actions" menu, select the "Item say" block and drag it onto the coding window too. You'll need two of these so either copy and paste them or drag and drop them twice.

If you want to use your own audio recordings to give information, you can use the "Play sound item" blocks instead of the "Item said" block.



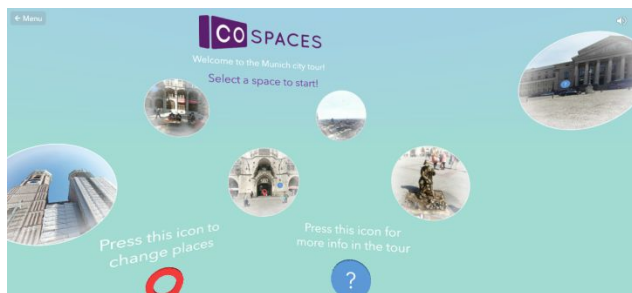
Example space



A Coruña City Tour

[View example space](#)

Other ideas



**Munich City Tour,
CoSpaces Edu Team**

[View example space](#)



**New York City Tour,
Andrea Guerra Arcos, Grade 5**

[View example space](#)