



## What and Why?

AR (augmented reality) is an interactive experience that combines the real world and content that has been made with computer, for example pictures, sounds, video content, or text. When you use an app that has AR content and look at the real world through the camera of your device, it looks like the computer-made content is in the real world.



The AR Makr is an app for creating scenes where you add virtual objects to a capture of real world. For example, you can make it seem like a virtual character is sitting on your desk. You can use ready-made objects from the app library, design objects on the app, or turn any picture into an object. You can save and share the scenes you create. AR Makr is an app for iPad.

*You can use augmented reality for example for creative projects and presentations, telling stories or inspiring learners to read. It can also be useful in solving math problems, for example help to understand geometry and 3D objects. It is also possible to design spaces with AR.*



## How To Use AR MakR



Think and discuss: Augmented reality, what is it?  
Watch the instructional video of AR Makr on Vimeo.  
Share your thoughts with the group:

- Have you seen other examples of augmented reality? (e.g. Pokemon Go, Jurassic World Alive, Geocatching, iDinosaur -book, 3D rollercoasters (3D glasses)..?)
- How do you feel about them?



- Tip: You can collect answers with an Answergarden-question and revise something you have learned before. Alternatively, you can ask participants to write their answers on post-it notes and collect them on the whiteboard. This can increase activity in the discussion!

# How to Use A MakR



## Think and discuss:

- AR Makr is an app for iPad. Make sure you have enough devices and their batteries have been loaded.
- Make sure you have the app downloaded. Download the app from AppStore if it is not installed on the device. Do you know where to find the app on the iPad?
- Explore the AR Makr app: How do you navigate in the app? What kinds of menus and features can you find? You can also take a tour of the app together, lead by the trainer.

## 1. *How does it work? Create AR scenes with template objects/figures.*

- Work individually or with a partner:



- Open the app and explore the template library: find your favorite template set of AR objects. Click START button to begin.
- Move the camera view slowly and aim it to an area (table, floor, chair...) where you want to add virtual AR objects. Create the scene by clicking the grid that appears in the view.
- Add template objects/characters to the scene. Use the options that appear to the left and click the object you wish to add to the scene.
- Edit how the character looks like on the scene:
  - Move the object where you want it.
  - Adjust the size of the character (2 fingers, squeeze to make smaller and spread to enlarge)
  - Add movement if you want (click the object, click the picture of the object in the down right corner, choose movement from the list by clicking it).
- When you are happy with the object, click PLACE button on the right to save it to the scene.
- Add at least three objects to your scene. Explore the different options you have for editing the object.
- Save the scene you created to the library when you are ready.



- Practice giving feedback and help each other to succeed:
  - Discuss with the group: How can I give positive feedback on somebody's AR Makr scene? Come up with examples and collect them to the whiteboard.
  - Switch iPads with a partner/another pair of learners.
  - Explore the scene your partner/-s made. Think of 3 positive things to say about it. When you are both ready, give your feedback to each other.
  - Do you have any questions to your partner about their scene? Did he/she have features you don't know how to make? Ask him/her to show you how they did it!

## Further Reading Material



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## Get Creative! Create your own AR objects.

- Group Art Exhibition: Practice creating your own AR objects
  - Draw a picture (you can decide on the theme together with the group). Use pen and paper or a digital drawing tool.
  - Take a picture of your drawing if it is on paper or save the digital drawing to the photo library of the iPad.
  - Together as a group, decide on the background of your exhibition and create a scene. Create the scene on one of the iPads.
  - Transfer all the art photos/files onto the iPad with the created exhibition scene. This can be done for example via AirDrop. You can also use this same iPad to take all the pictures, this way there is no need to transfer them from one device to another.
  - Each participant adds their object on the scene:
    - Open the scene.
    - Create an object out of the picture you drew by using the NEW button on the left.
    - Click the folder icon. Find your picture from the photo library and click on it.
    - Try different shapes for the object (options below). Finally accept your choice and the object appears to the scene.
    - Adjust size and position of the object and add movement if you want.
  - When all the objects have been added to the scene, enjoy the art exhibition.



- Choose a creative project:
  - Tell a story:
    - Create a scene/scenes with objects that are characters in your story. You can use template characters or make your own.
    - Write / plan a story for the characters you chose. The story doesn't have to be long!
    - Record a video with the characters on the scene while you tell the story. ‘
  - Present a geometric, 3D object
    - Choose a geometric object, such as a dice, a pyramid or a cylinder. Get familiar with its characteristics.
    - Create an object that has the shape of your chosen geometric 3D object with AR Makr and add it to a scene you created.
    - Record a video where you explore the object and tell about its characteristics. Alternatively, you can use the scene you created as a visual aid (e.g. project the screen of the iPad on the whiteboard) and tell about the object's characteristics to the rest of the group.
  - Design the room of your dreams.
    - What kind of furniture would you have in your room?
    - Where in the room would it be?
    - You can draw furniture and other objects in the app or find pictures of the things you need online and turn them into AR objects. Remember to use public domain pictures!

