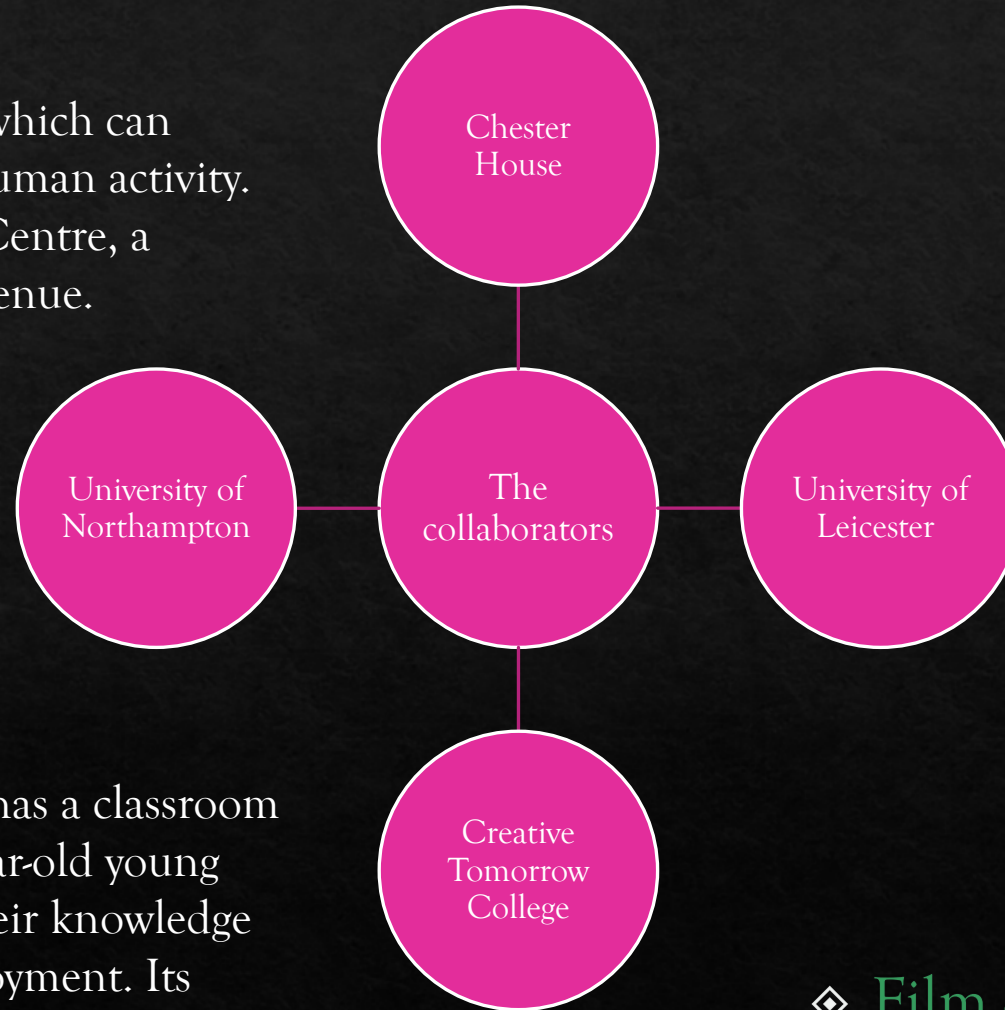


*Bringing learning
alive: empowering the
use of immersive
technologies to blend
physical and digital
spaces*



The Collaborators

Nationally significant heritage site which can demonstrate over 10,000 years of human activity. It has an Archaeological Resource Centre, a farmhouse, a café, an educational venue.



In collaboration with the University of Leicester school of Archaeology and Ancient History, has become a location for archaeological digs

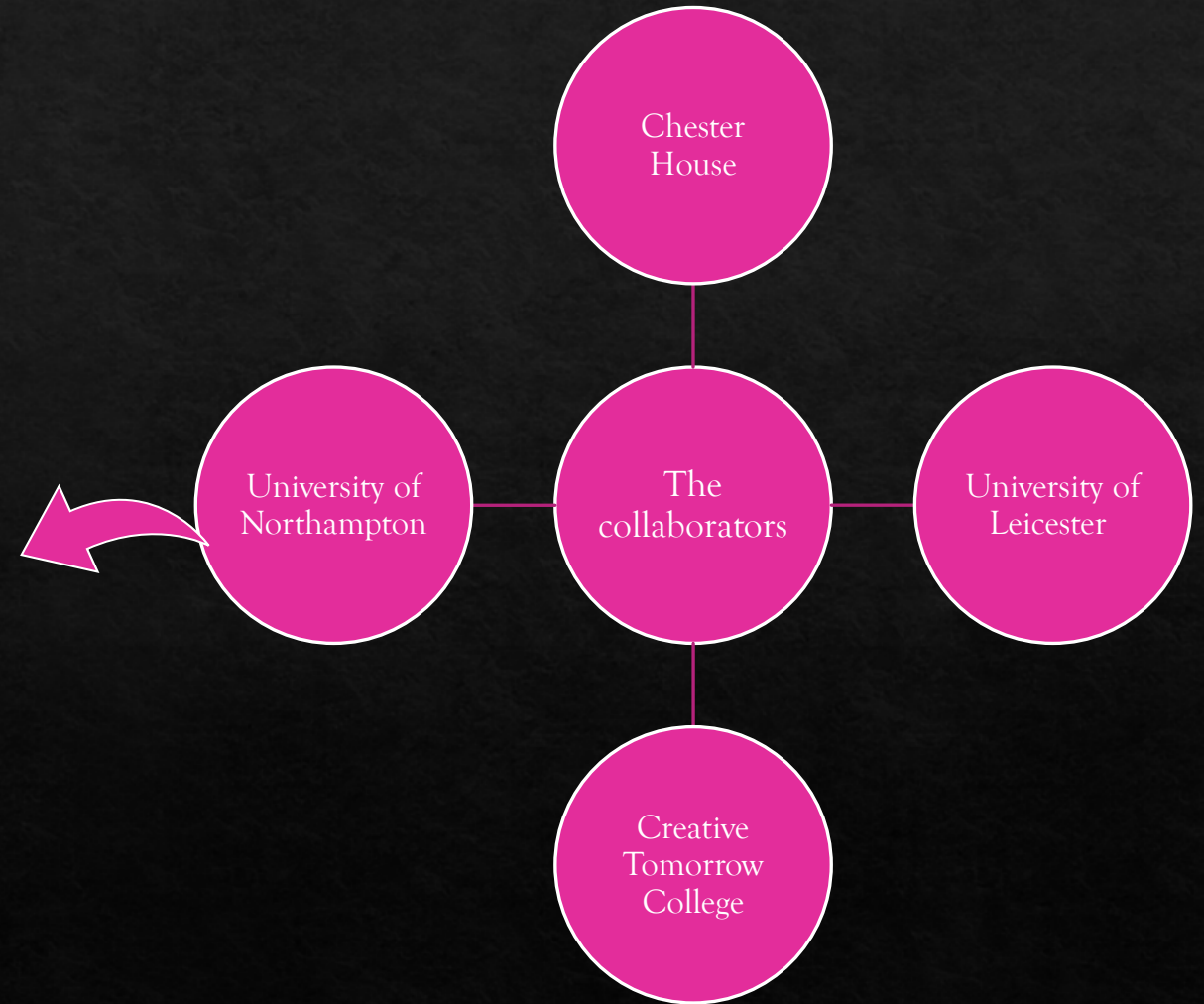
The Creating Tomorrow College has a classroom at Chester House where 16-25-year-old young adults with SEND can develop their knowledge and skills needed for future employment. Its location at Chester House allows for participation in work experience.

◇ [Film - Our Story - The ChesterHouse Estate](#)

Our involvement - purpose of the project

Considering that Chester House Estate is an example of an authentic and inclusive context with a range of stakeholders and end users our purpose has been to:

- Work together with our partners and co-create digital resources to enrich visitor experiences and increase accessibility by combining virtual and physical experiences.
- To support staff to embed immersive technologies such as augmented and virtual reality in their teaching and learning through a knowledge exchange approach.
- Motivate the UoN staff to embed the digital resources created from this project in their practice.



Project Overview

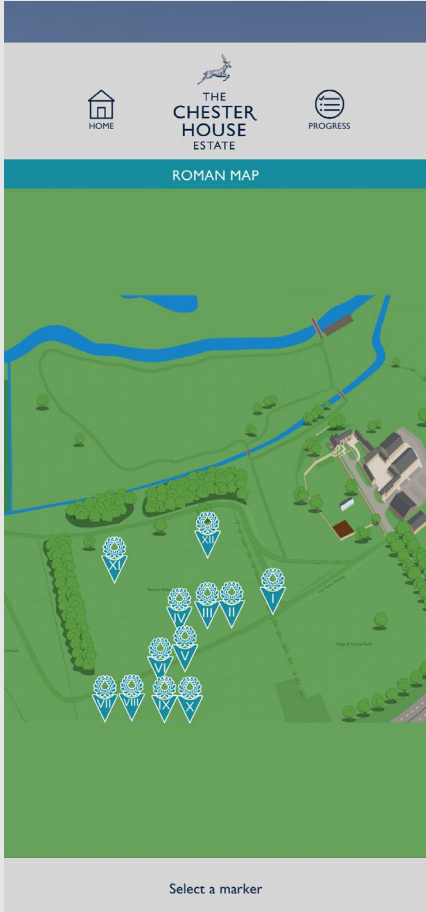
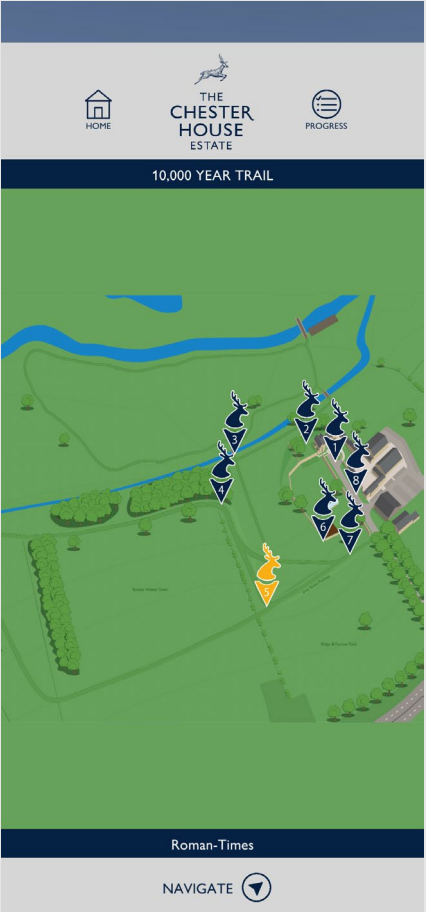
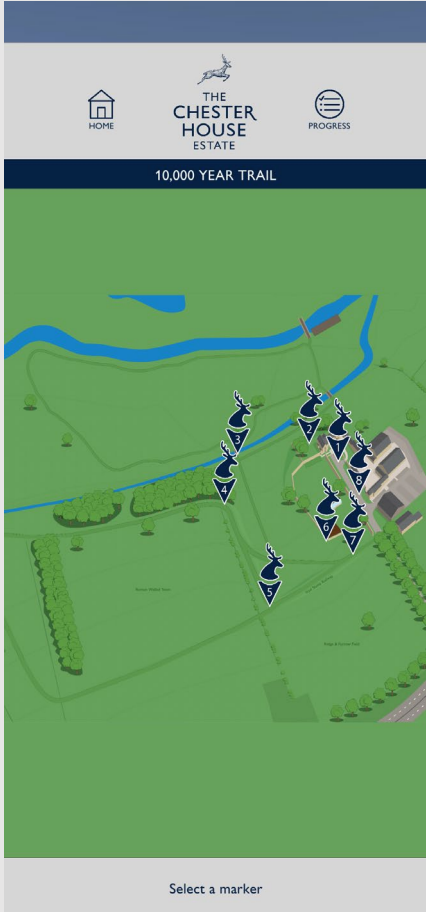
Augmented Reality trail

High tech team

Home page and integrated web browser



Augmented Reality trail maps



Augmented Reality apps

Education team

Overview of the Low-Tech team actions

① Co-creating apps

One UoN staff and four students worked with eight learners from the Creating Tomorrow Academy

Aim:

To investigate how four digital apps can be used by schools attending Chester House's education workshops.

How?

By reflecting on how the apps could be used, creating worksheets and piloting them

EyeJack

ScavengAR

Polycam

ARMakr

② Learning about QR codes

One UoN staff and one student worked with the eight learners from the Creating Tomorrow Academy

Aim:

To teach learners how to use and add QR codes to their CVs to display employability skills.

How?

By using the photos/videos taken during Action 1 while co-creating the apps & linking them to employability skills



Exploring AR apps: steps followed

Step 1:

Introducing the apps to the learners-each group assigned to one app (4 in total)



Scanning objects with Polycam

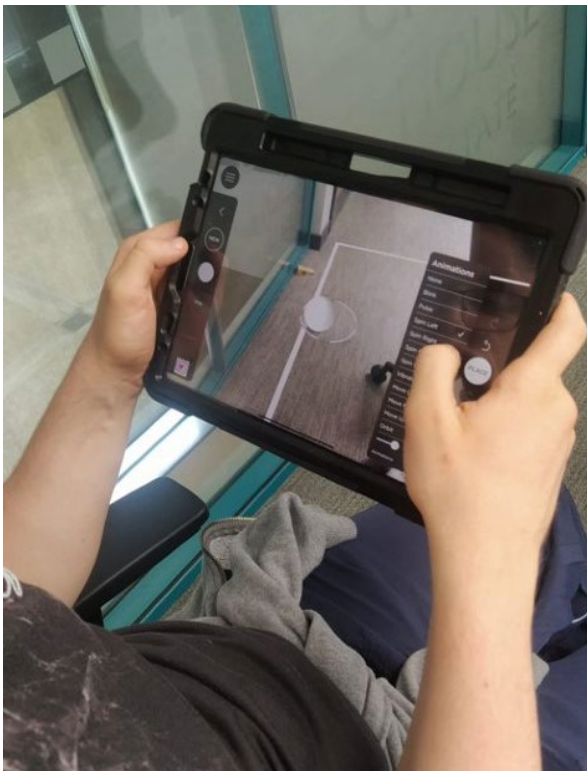


Step 2:
Checking the archaeological resource centre to identify artefacts/objects

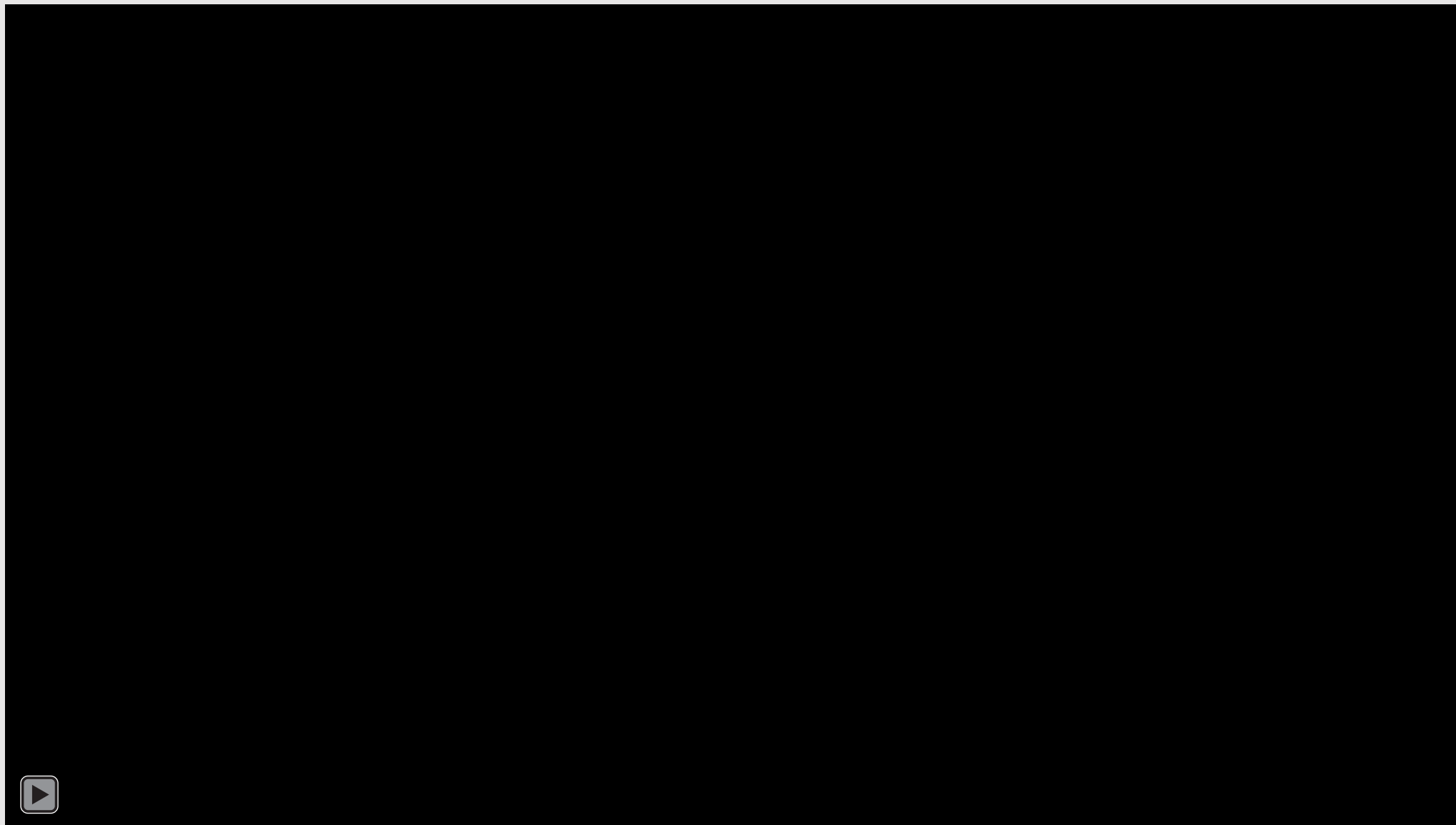


Step 3:

Working together with the young adults to co-create the apps

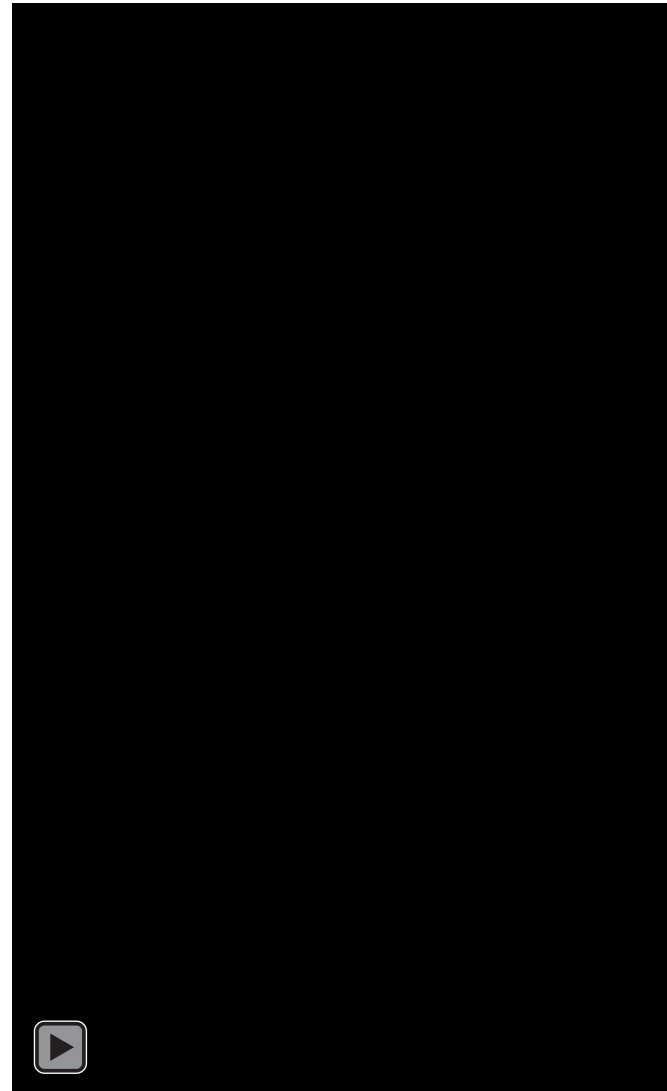


3D Visual Representation of a previously scanned object using Polycam app



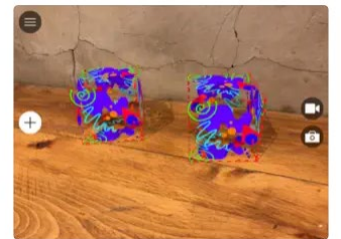
Creating scenes with AR Makr (IOS)

- AR Makr is a creative toolbox for augmented reality.
- Sketch, scan, and snap the world around you. Transform your creations from 2D to 3D virtual objects.
- Place your creations anywhere in your environment. Record, save, and share your scenes.



AR Makr 4+
Augmented Reality Playground
[Line Break, LLC](#)
★★★★★ 4.1 • 15 Ratings
Free

iPad Screenshots



Polycam

For all Key Stages.

WIFI

Yes - iOS

Yes - Android

- Facilitated Visit
- Self-guided visit
- Outreach visit

All about the APP

The app takes objects and processes them into an object in the app that can be moved around. The object is then stored on the device to be viewed at another time.

Activity steps

1. Download Polycam
2. 5 free images with every download
3. Take 25 photos of an object you want to replicate or take a video with the app continuously taking photos around an object
4. Once enough images are collected then the DONE button will be highlighted
5. Click the DONE button
6. The app will render the object to place it within the app
7. You can edit the object to make it bigger or smaller and have a 360 view of the object

Helpful hints

1. Try not to get anything other than the object in the photo
2. Make sure to take photos of every angle

Taking it back to school

1. Use in a history or English lesson.
2. To describe the object by talking about the history of the object and/or describe what the object is.

Variations to try:

1. Potentially try smaller objects but take lots more photos to make sure all the details are captured.
2. Try the app alongside the artefacts lesson that Chester house provide.

Step 4: Creating worksheets with steps for each app





Step 5:
Piloting the worksheets for each app between the groups

Learning about QR codes

Teaching learners how to use and add QR codes to their CVs to display employability skills.

Steps followed:

- Introduce QR codes to students with examples
- Identify what career path each individual wants to follow
- Select photos of the young adults taken during the co-creation process and link them to their preferred employability skills
- Provide steps and showcase to the learners how to link photos to QR code and add to CV.



Social Impact



The project is innovative in exploring the themes of **accessibility**, **employability** and **inclusion** by enabling the young adults/learners to:

- Be heard and be an integral part of the research project and co-creation process.
- Develop their understanding on the potential of using immersive technologies to enhance learning.
- Gain experience in delivering education programmes and visitor tours using immersive technologies.
- Enhance their employability skills and use technology to showcase these skills to future employers.

