Europeana Learning Scenario

Summary

I will be using Europeana with augmented reality (AR) and 3D technologies. I will encourage students to create materials using these technologies.

Students will search for bird sounds and pictures of different types of birds from the Europeana collections. They will create materials using AR. When they point their tablets or phones on the bird picture they will hear bird sounds.

Suggestion for teachers: read some resources about AR technologies and how to create new AR materials. They can use ROAR or LAYAR editor.

Table of summary	
Subject	Computer Science
Topic	Augmented reality, creating products
Age of students	12-13
Preparation time	1 hour The teacher should download ROAR or LAYAR editor for phones or tablets. The lesson will be a collaborative work so there must be a tablet for 4 students. Students should prepare for lesson by downloading applications. Teacher should search Europeana collections for bird sounds and images about different birds and download them. Good Internet connection is necessary for the lesson.
Teaching time	90 minutes
Online teaching material	ROAR or LAYAR editor, KAHOOT www.europeana.eu
Offline teaching material	Paper, printer, computer, Internet connection

Europeana resources used	https://www.europeana.eu/portal/en/collections/natural-history?q=(PROVIDER%3A%22OpenUp!%22%20AND%20TYPE%3ASOUND)%20OR%20(TYPE%3ASOUND%20AND%20what%3A%20(animal%20OR%20bird%20OR%20nature))&view=grid

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Integration into the curriculum

It is the last subject of computer science. This topic focuses on students creating products with what they learn.

Aim of the lesson

Students should be able to get used to augmented reality technology and create their own augmented reality products /materials.

Trends

List the relevant trends that the lesson incorporates: http://www.allourideas.org/trendiez/results

Project-Based Learning: students get fact-based tasks, problems to solve and they work in groups.
Collaborative Learning: a strong focus on group work.
Bring Your Own Device:

21st century skills

Environmental literacy - This lesson plan can increase students' science and environmental literacy, as they will be aware about the nature, and different species. Students will learn about different species and about preserving and protecting wildlife.

Creativity and Innovation - Students will create a new material with their groups it will increase their creativity and innovation skills.

Collaboration - Students work with groups of four. They will all do small parts of work together, which will develop their collaboration skills.

ICT Literacy - Students will use LAYER or ROAR applications for creating material so this lesson aims to develop their ICT literacy.

Productivity & Accountability - At the end of the lesson students will have new products. So it will improve their productivity skills.

Activities

Name of activity	Procedure	Time
Introduction	Prior to the lesson the teacher prepares students for the lesson by showing some examples of augmented reality, such as Quiver Vision.	10 min
Introduction	The teacher lets students paint a bird and show them how it will come to life.	20 min
Discuss	Teacher asks students how to create augmented reality materials. The teacher tells students how they are created briefly.	5 min
Search	The teacher shows students the Europeana platform. Students in groups of four search for bird sounds. They listen and choose one.	10 min
Create	Students find bird photos to match with the sounds. They link these photos to their bird sounds.	30 min
Produce	The class together prints the photos of groups and try to watch augmented reality materials.	15 min
Vote	We will choose the best augmented reality with votes, using Kahoot.	10 min

Assessment

Students assess themselves, using a voting system. Students and teacher can vote and comment on works but the teacher does not assess their creativity, creating products is the most important.

Student feedback

All students can give feedback after the lesson using Kahoot.

Teacher's remarks

There were problems with the Internet connection in class. I solved it by sharing my own connection. I suggest teachers to control Internet connection and that students should bring their tablets because groups need at least one tablet to try the connection.

About the Europeana DSI-4 project

Europeana is Europe's digital platform for cultural heritage, providing free online access to over 53 million digitised items drawn from Europe's museums, archives, libraries and galleries. The Europeana DSI-4 project continues the work of the previous three Europeana Digital Service Infrastructures (DSIs). It is the fourth iteration with a proven record of accomplishment in creating access, interoperability, visibility and use of European cultural heritage in the five target markets outlined: European Citizens, Education, Research, Creative Industries and Cultural Heritage Institutions.

European Schoolnet (EUN) is the network of 34 European Ministries of Education, based in Brussels. As a not-for-profit organisation, EUN aims to bring innovation in teaching and learning to its key stakeholders: Ministries of Education, schools, teachers, researchers, and industry partners. European Schoolnet's task in the Europeana DSI-4 project is to continue and expand the Europeana Education Community.