



3

3.0 School and Classroom Kits

Hackathons for Schools

How to organise
Hackathon/Coding Jam
style events in schools

Annex: Learning Scenarios

The EDU Regio project is coordinated by Departament d'Educació de la Generalitat de Catalunya (Spain), together with European Schoolnet (Belgium). The project also involves four partners from four European regions: Junta Castilla y León (Spain), Provincia Autonoma di Trento (Italy), Göteborgsregionens kommunalförbund (Sweden), and Comunidade Intermunicipal da Região de Coimbra (CIMRC) (Portugal). This booklet has been curated collaboratively by their advisory teams. All the links have been checked at the time of publication

The work presented in this handbook is supported by the European Union's Erasmus+ Programme. The content of this handbook is the sole responsibility of the Partnership Members and it does not represent the opinion of the European Union and the European Union is not responsible or liable for any use that might be made of information contained herein.

Project EduRegio: Digital Regions for Education Agreement number: 2019-1-ES01-KA201-065608

Intellectual Output 2: School & Classroom Kits

PUBLISHER Direcció General d'Innovació, Digitalització i Recerca Educativa del Departament d'Educació de la Generalitat de Catalunya, Via Augusta 202-206 08021 Barcelona, Spain xtec.gencat.cat

PUBLISHED September 2021

PICTURE CREDITS Freepik



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Co-funded by the
Erasmus+ Programme
of the European Union



Provincia Autonoma di Trento



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About this handbook

3-Hackathon-Learning-Scenarios handbook contains a selection of the most suitable learning scenarios to run educational hackathons with students. These learning scenarios have been provided by more than 2000 teachers from all the world participating in the MOOC Course *Digitally Competent Teachers for Creative Digital Students*. This MOOC will remain open in European Schoolnet's Teacher Academy in the following link: <https://www.europeanschoolnetacademy.eu/courses/course-v1:EDURegio+DigitallyCompetent+2020/about>

Learning Scenarios have been validated by teachers participating in the co-creation training sessions offered by the regional strategic association EduRegio: Digital Regions for Education and also in the multiplier events of the project.

They are all ready to use lesson plans suitable to be implemented in your everyday school practice. They may need reasonable adaptations depending on each classroom context.

We would also like to invite you to join our [Facebook group](#) Digitally Competent Teachers and to use the hashtag #EduRegio to share ideas, thoughts and experiences on Twitter and Instagram.

Acknowledgements

Teachers participating in MOOC Digitally Competent Teachers, EduHackathon, Learning Activity Digital Co-Creation Lab and Multiplier events:

Emma Abbate, Luís Almeida, Natia Akhvediani, Nilgün Aktaş, Münire Alagoz, Bruno Alves, Andrei Daniela, Shahida Anthuparambil Backer, Shheba A Arakkal, Emine Arican, Tun Tun Aung, Kuşka Bal, Bălăşoiu Doinița, Rafael Baptista, Hayriye Başkan Doğru, Agustí Baubí Rovira, Jacopo Biancat, Donika Biba, Massimo Bossetti, Nurhan Boyacıoğlu, Nick Brackeva, Ana Catarina Branco, Alina Budica, Alessandro Buttitta, Mucahit Camnalbur, Irene Calvo, Eulàlia Canet Nebot, Petronela Colbea, Gonca Coşkun, Xavier Cortina Sagredo, Anabela Costa, María Inmaculada Cuéllar Montero, Tomás Cruz, Snježana Damjanović, Nurcan Değerli, Francisco Delgado Cecilia, Miriam Díaz Blanco, Denisa Ancuta Dumitriu, Cateluta Enciu, Miguela Fernandes, Jaume Ferré Algarra, Carla Ferreira, Javier García Luengo, María José García-Saavedra, Margareta Gašparović, Francesc Gassó Minguet, Adina Geczi, Mariarosa Gentile, Natalia Theokleia Georgitziki, Ghiban Anamaria, Ana Ghviniashvili, Giovanna Giannone Rendo, Leticia Pilar Gil Ramos, Oana Giubega, Andreea Goldschmidt, Carlos José Gonçalves Fernandes, Luis Gonçalves, Gina Hriscu, Enas Ismail, Pär Ivarsson, Maria Adelaide Jordão da Costa, Savi K K, Lissy KL., Dalia Kager, Eleni Kalesi, Büşra Kavan Alkan, Sabahat Kızıldağ, Mara Kolar, Dajana Jelavic, Jayasree L, Ksenija Lekić, Jolanta Leonavičienė, Helena Lopes, Marzia Lunardi, Ioanna Manafi, Sofronia Maravelaki, Lucia Marchi, Miral Marković, Andreea Maris, Helga Martínez-Ciprés, Ida Maiellaro, Alexandra Mavridou, Alessandra Menapace, Sónia Mendes, Fred Van Der Merwe, Massimiliano Minaudo, Izaskun Mitxitorena, Ciara Molloy, Zehra Müge, Monika Mužar-Kos, Elisabetta Nanni, Lidia Nistor, Rejhana Nuhanović Tadijan, Ignacio Javier Ortega García, Ayça Oğuz Karakadılar, Henriqueta Oliveira, Eulàlia Olivé Ollé, Nithya P. S, Praseetha P M, Ramsiya P Ramsiyahanu, Branimira Palić, Purvi Parekh, Marta Pena, Inma Pérez Sagarrabay, Roxana Pérez Hidalgo, Reçi, Olga Pérez Soriano, Sandra Pereira, Maria Elisabetta Porcedda, Carlos Portela, Marc Portugal, Marija Pustišek, Nadia Richard, Elena Corina Rogoveanu, George Rouvas, Emiliana Rufo, Daniel Ruiz, Szilvia Salánkiné Knopfler, Margarita Samoutian, Claudia Santos, Maria Raquel dos Santos Pereira, Tania Santos, Paschalia Sarmi, Sonia Sartori, Sebastià Sastriques, Judit Serra Valbona, Mehmet Bora Sertkaya, Jannicq Sierens, Natalija Siladjev, Maria De Fátima Silva, Susana Silva, Aikaterini Spitsa, Sena Şimşek, Gastão Sousa, Stan Cristina, Jasmina Štefan, Mimoza Sulaj, Alia Syed, Gabriel Tanasescu, Marco Tassan, Rita Tomás, Amelia Torniero, Evangelia Triantafillou, Cristina De Vega Benavides, Elena Vercher Ribis, Jisha Verghese, Maria Lucia Vieira, Marijana Vuković, Hatice Yagci, Nasiye Yamac Sahin, Ana Belén Yuste, Sílvia Valenciaga Sánchez, María Jesús Walías, Ana Carmen Zabalza.

How to apply the following learning scenarios for hackathons in schools?

According to teachers that have already implemented them, hackathons are more suitable for older students: a certain degree of autonomy and decision taking is needed. This is the reason why learning scenarios for small children are not included here. Children need very clear directions and more teacher attention than teenagers. Their shorter attention spans make it very difficult to use hackathon-like activities in earlier education stages.

A hackathon mostly needs a time limit, break out groups competing or not, challenges, understanding the context and empathizing with users, development of prototypes and presentations.

We are using as example [Solutions to limit environmental pollution](#) by Doinița Bălășoiu:

STEP 1 - PREPARING THE LESSON PLAN. Challenge definition and pedagogical settings.

Challenges should be **selected by teachers in alignment with curricular learning objectives, and focusing open solutions or wicked problems**. Some **scaffolding** should be provided as preliminary work to understand the context. In [Solutions to limit environmental pollution](#), questions will be selected by using [answergarden.ch](#) and guided discussions.

Organisation.

The following step is the development of the hackathon itself, by setting a **time limit** for collaborative work and **dividing the class into small groups**. Groups must include **complementary profiles and skills**, even ages, for a successful development.

STEP 2 - DEVELOPING THE LESSON PLAN. Implementation.

2.0 Ice breaker - team building activity.

Pupils must **choose a name** for the group. A creative activity, like the design of a logo or the template of an e-portfolio can spark work dynamics. **Preparatory guided discussions** can be included in this part.

2.1 Design.

This part corresponds to learning scenario's steps [Discussions](#) and [Collaborative activity in work teams](#).

2.1.1 Ideation and problem framing.

Groups should **draw a mind map to brainstorm** about the challenge to be addressed (the main idea should be in the center), try to imagine and understand a final user (in this case, *who would need a robotic pollution detector*), and **define the positive points, the negative ones, create questions and produce ideas** to address the challenge (in this case, what a robotic detector would be like). All of this can be made by using large posters and pieces of paper/post-its in different colours, or **digital versions** by using platforms like Miro.

2.1.2 Analysis of problems and opportunities related to the challenge.

Groups must approach the challenge, in this case by using a large poster and coloured post-its. This corresponds to the learning scenario's step [Discussions](#).

Once the activity is finished, **post-its must be clustered together giving a name to each cluster**, following just the meaning or the concepts. So, identification of the points of interest and which ones seem more problematic, will be done at a glance. **Clusters will reveal appealing sub-challenges**. One of them must be filtered, and selected.

2.1.3 Come up with many ideas.

Individually, students must think about three ideas on how to approach the sub-challenge chosen. These three ideas must be evolved into six similar ideas, but with different implementations. The group must vote for the two preferred ideas, and a last discussion will reveal the end choice to prototype. This corresponds to the learning scenario's step [Collaborative activity in work teams](#).

2.1.4 Fast prototyping.

The idea will evolve into something tangible. Pupils will imagine how to implement the idea by using sketches, photos or drawings to represent this implementation, for example, **how a robotic pollution detector would look like**. Also the use of figures in plasticine or 3D prints would help to get a better idea. In this case, a first approximation to the code to be used can be included in this step.

3. Share.

This part corresponds to the learning steps Collaborative activity in work teams and Collaboration game in Solutions to limit environmental pollution

3.1 Sharing the prototypes.

Pupils must share with the big group some ideas and the first fast prototype in one minute. Ideally, they must try to remember all the teams' prototypes.

3.2 Pollination.

Each team must be split into smaller groups. One or two people from every team will stay to explain their own prototype while the rest of the team will travel to meet other groups to provide feedback. Every group should try to talk to as many teams as possible.

4. Refinement.

4.1 Improve team's prototypes.

Pupils must share all the feedback provided by other participants and also the good ideas seen in other prototypes. Also, things that other participants liked about your prototype, points where other participants spotted difficulties that weren't easily understood and improvements suggested by other participants.

5. Storytelling.

This part corresponds to the learning scenario's steps Presentation, Inter-evaluation and Discussions in Solutions to limit environmental pollution.

5.1 Communicate and share your project.

A **storyboard** must be produced to imagine six scenes to describe each project. A problem-solutions structure usually works well. Then, record a **short video** based on the storyboard (less than 1 minute) to describe each final project.

5.2 Team's presentations.

Videos must be shared and proposals explained in one minute. Then, students must propose questions to the other teams or answer questions proposed by each team.

Citizen Of Europe

1. Preparing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

Brief description

How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.

Citizen of Europe lesson is aimed to raise citizenship awareness and importance of mutual understanding, to make sure mutual exchange of information through effective communication and collaboration, and to improve students' knowledge about the European Continent.

<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Primary Education, 9-12 years</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<p>The activity does not require a specific learning space. It can be organized in the classroom, the computer room or at home.</p> <p>The space does not have any requirements, apart from a good internet connection and an interactive smart board, tablets or mobile phones.</p>
<p>Learning Objectives</p> <p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<ul style="list-style-type: none"> ● Objective 1: Students will learn about countries and capitals in Europe. ● Objective 2: Students will use a variety of ICT tools to create posters, flags and videos about countries and capitals in Europe. ● Objective 3: Students will draft the rules of Europe Citizen. ● Objective 4: Students will learn and sing the song Countries and Capitals of Europe.
<p>Materials</p> <p><i>Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.</i></p>	<p>Map of Europe, Flashcards, images and worksheets with information about countries and capitals in Europe (offline or online materials)</p> <p>Optional of online materials or online resources to follow:</p> <p>https://www.youtube.com/watch?v=07Zoc5fqoOA</p> <p>https://www.youtube.com/watch?v=qdCu2sKhYfk</p> <p>https://www.youtube.com/watch?v=b9AhZlB5tgU</p> <p>https://www.nationalgeographic.org/encyclopedia/europe-resources/</p> <p>https://www.tes.com/teaching-resource/geography-europe-countries-and-capital-cities-reference-12128929</p> <p>https://ro.pinterest.com/pin/829154981380052031/</p> <p>Lyrics: Est-uh, Lat-vuh, Lithuaney Bela, Poland, and Ukrainey Moldov Roman eats some Bulgur-ey Greece has pieces, Macedonia Albany and Kosovo-ia Montenegro, Serbia, and Bos-Her-Z Croatia!</p>

	<p>Slovenia's not Hungary Yo-Slovakia plays Czechkers north of Aussie Switzerland it bends the knee of Italy and Germany Nether nose and Belgian chin Luxembourg it fits right in France is balancing UK and Portugal's the tip of Spain Ireland, the Icy Queen Greeland isn't all that green Swe-Denmark, and Norway to the west Finland and we're finished Now go and learn the rest!</p>
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Other

The lesson plan was design as a PBL (Project Based Learning Activity) and in four parts:

- ACTIVITY 1: Introduction to the subject
- ACTIVITY 2: Collaborative Research
- ACTIVITY 3: Role-play Citizen of Europe
- ACTIVITY 4: Assessment and Dissemination

Teams and groups can be adapted according to the teacher's class.

2. Developing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion.

Method	Details and description <i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what the teacher is doing, which instructions are the students given, what contents are being covered, etc.</i>	Time <i>Approximately, how long does this part of the lesson plan take?</i>
<p>Drive Question: <i>What European country would you like to visit?</i></p> <p>Discussion & Presentation: <i>What's Europe?</i></p>	<p>Using Google Earth Pro students will be able to travel around Europe and discover where the countries that they want to visit are located.</p> <p>Students will be informed about the European continent and its importance.</p> <p>Teacher will present information, as follows:</p> <ul style="list-style-type: none"> • What is a continent? 	1 hour

	<ul style="list-style-type: none"> ✓ A continent is a massive piece of land that is often separated from other areas of land by water or another feature, such as mountains. ✓ Planet Earth has seven continents. Do you know the names of any of them? • What is Europe? <ul style="list-style-type: none"> ✓ Europe is one of the world's continents. Around 10% of the world's population lives in Europe. ✓ Europe is one of the seven continents. The other six are; North America, South America, Africa, Asia, Australasia and Antarctica. ✓ Europe is the second smallest continent in size. ✓ There are around 50 countries in Europe, including England, France, Croatia and part of Russia. ✓ 739 million people (739,000,000) are thought to live in Europe, making it the third largest continent by population. ✓ Most countries use the Euro as their currency. ✓ There are lots of religions across Europe, the most practised being Christianity. • About Europe: <ul style="list-style-type: none"> ✓ Rivers ✓ Mountains ✓ Famous Landmarks ✓ Climate and Weather 	
Collaborative Research	<p>Students will be divided into 5 teams: groups with 5 students.</p> <ul style="list-style-type: none"> • Each team will have to search information about 10 countries (their capitals and flags), will create informative posters using www.canva.com and presentation of the countries with videos using apps such as: Quiq, Inshot, VivaVideo, Filmigo. ! See the link: https://pin.it/48PeQtA • Students are free to choose their role in the team and the path to follow in achieving the objectives of the lesson. 	2 hours
Role-play	Students are asked to formulate the rules of coexistence for all European citizens:	1 hour

<p>Citizen of Europe</p>	<p>e.g.:</p> <ul style="list-style-type: none"> ✓ The citizens of the European Continent must respect all the people from and beyond Europe. ✓ All the citizens have the right to preserve and protect their country, traditions and customs, language and way of living. <p>This activity will be conducted using Jamboard or www.flipgrid.com apps.</p>	
<p>Assessment & Dissemination</p>	<ul style="list-style-type: none"> • All the students will present their work and share their learning experiences with their peers. • They will have the opportunity to give feedback, reflect on their work and their peers' work, exchange ideas and knowledge. • The teams will upload their work in www.padlet.com • The videos made by students will be shared in the class, in school and through social media for a good dissemination. • At the end of the activity students will play a kahoot game and sing the song Countries and Capitals of Europe. 	
<p>Blended and remote learning environments</p> <p><i>Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?</i></p>		
<p>The activity can be replicated in a blended learning environment (online and offline teaching combined), but also in a remote learning scenario (fully online teaching). In order to conduct the lesson it is necessary to have a good internet connection at school or at home.</p> <p>Tools used within the lesson:</p> <p>www.canva.com www.jamboard.com www.padlet.com www.flipgrid.com www.kahoot.com</p> <p>for videos: Quiq, VivaVideo, Inshot, Filmigo</p>		

3. Follow up of the Lesson Plan

This section is optional, as not every topic or activity has materials available to complete this. However, we encourage you to try to find materials for follow up and to suggest an evaluation method of the lesson plan!

<p>Follow material and/or homework</p>	<p>Optional of online materials or online resources to follow:</p> <p>https://www.youtube.com/watch?v=07Zoc5fgoOA</p> <p>https://www.youtube.com/watch?v=qdCu2sKhYfk</p> <p>https://www.youtube.com/watch?v=b9AhZIB5tgU</p> <p>https://www.nationalgeographic.org/encyclopedia/europe-resources/</p> <p>https://www.tes.com/teaching-resource/geography-europe-countries-and-capital-cities-reference-12128929</p> <p>https://ro.pinterest.com/pin/829154981380052031/</p> <p>Lyrics: Est-uh, Lat-vuh, Lithuaney Bela, Poland, and Ukrainey Moldov Roman eats some Bulgur-ey Greece has pieces, Macedonia Albany and Kosovo-ia Montenegro, Serbia, and Bos-Her-Z Croatia! Slovenia's not Hungary Yo-Slovakia plays Czechkers north of Aussie Switzerland it bends the knee of Italy and Germany Nether nose and Belgian chin Luxembourg it fits right in France is balancing UK and Portugal's the tip of Spain Ireland, the Icy Queen Greeland isn't all that green Swe-Denmark, and Norway to the west Finland and we're finished Now go and learn the rest!</p>
<p>Evaluation</p>	

Author: Elena Corina Rogoveanu

Country or region: Romania, Valcea

Exploring the European Union

1. Preparing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>This lesson plan aims to lead students to explore the European Union (places, cultures, languages, monuments, institutions, etc.) through collaborative techniques and ICT use for digital content creation.</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>(Upper) Primary Education: 9 to 12 years</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<p>The activities take place in the classroom. Prerequisite for the implementation of the scenario is the use of computers in class, at least one in each students' group, and good internet connection.</p>
<p>Learning Objectives</p> <p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● discuss about the EU's geography, history and culture ● explain how the EU works and its impact on the daily lives of the EU citizens ● develop their social consciousness through dialogue and cooperation with their classmates ● develop digital skills through online collaboration and digital content creation
<p>Materials</p>	<p>Materials downloaded from the Publications Office of the EU:</p> <ul style="list-style-type: none"> ● Poster "United in Diversity" (2017)

<p><i>Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.</i></p>	<ul style="list-style-type: none"> ● Booklet “United in Diversity” (2014) ● Legend to the Booklet “United in Diversity” (2016) ● Booklet “Passport to the European Union” (2016) ● Brochure “Europe - Organising together!” (2020) <p>Materials located in the EU Learning Corner</p> <ul style="list-style-type: none"> ● Interactive map “The EU: what’s it all about?” ● Board game “Let’s explore Europe” <p>Web tools (no registration needed for students)</p> <ul style="list-style-type: none"> ● Tricider (brainstorming tool) ● MeetingWords (realtime collaborative text editor) ● ZeeMaps (interactive maps creator) ● Easel.ly (design tool) ● WordArt (word cloud art creator) ● Bubbl.us (mind-mapping tool)
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2. Developing the Lesson Plan

Method	Details and description <i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what is the teacher doing, which instructions are the students given, what contents are being covered, etc.</i>	Time <i>Approximately, how long does this part of the lesson plan take?</i>
<ul style="list-style-type: none"> ● Presentation of a poster ● Discussion ● Online brainstorming activity 	<p>Part 1: We want to explore the EU!</p> <p>The teacher presents in class <i>the poster “United in Diversity”</i>, an edition downloaded from the official website of the Publications Office of the EU. The poster shows a map of Europe together with euro coins and notes. Pictures are used to illustrate the national characteristics and traditions of each country. Euro area countries can be identified by a euro coin next to their names. This poster is the first contact of students with the EU and the teacher asks them to observe the map for a little. Teacher should also explain about Brexit as the map is older and includes the United Kingdom in the EU Member States.</p>	<p>1 hour</p>

	<p>The teacher asks students to think about what is really interesting or important to explore about the EU in this map. Then asks them to collect their ideas and also vote for their favourites via the online brainstorming tool “<i>Tricider</i>”. The students' ideas are about “mountains”, “countries”, “euro coins”, “flags”, “languages”, “European parliament” etc.</p> <p>Students and their teacher discuss all these ideas in order to reach the broader themes they can explore for the EU. Finally, they decide to explore 4 topics: “Geography”, “Touristic interests”, “Languages” and “EU creation”.</p>	
<ul style="list-style-type: none"> ● Jigsaw technique ● Collaboration in groups ● Discussion ● EU publications ● Interactive map ● Online tool for collaborative text editing 	<p>Part 2: Jigsaw for the EU!</p> <p>Teacher asks students to work with the Jigsaw technique (https://www.jigsaw.org).</p> <p>Initially, the students are divided into 4-person groups (the jigsaw groups), diverse in terms of gender, ethnicity, race, and ability. Everyone in the jigsaw group will undertake to explore one of the 4 different themes for the EU. One student will be a geographer, another a travel agent, another a linguist and the last one a politician. The geographer will explore the EU countries, the capitals, the mountains, the rivers, the seas, etc. The travel agent will explore everything interesting for the tourists, like monuments, museums, churches, historical places etc. The linguist will explore the languages of the EU countries, official and dialects. The politician will study the history of the EU's creation and the functioning of the EU institutions.</p> <p>Secondly, the groups will be transformed into the “expert groups”, the temporary homogeneous groups composed of students who have an identical assignment, the same “specialization”. So, all geographers will be together in the first group, all travel agents together in the second group, all linguists in the third group and all politicians in the last group. In the “expert groups”, students collaborate to gather and organize the information needed. Students have at their disposal, besides the poster above,</p> <ul style="list-style-type: none"> ● the <i>booklet “United in Diversity”</i>, a by-product of the poster, and the legend to the booklet, both downloaded from the official website of the Publications Office of the EU. The booklet is an ideal way for children to learn about the diversity of the European family. They can use it to understand what the euro and the euro area are, and be introduced to the cultural, scientific and natural heritage of the countries that make up the European Union. ● the <i>interactive map “The EU: what's it all about?”</i>, from the EU Learning Corner, which helps pupils discover more about the countries of the European Union in a fun way. Students take a trip to each country and find out what they like to eat in Czechia, which sport is the most popular in Slovakia, learn the names of some famous Dutch painters and much, much more! 	<p>1,5 hour</p>

	<ul style="list-style-type: none"> the <i>booklet "Passport to the European Union"</i>, downloaded from the official website of the Publications Office of the EU, which takes children on a tour of Europe, providing lighthearted insights into each country, including food, languages and famous people. Pictures introduce some of Europe's most well-known and lesser known sights, including a statue of a mermaid in Copenhagen harbour and the rock where Greek goddess Aphrodite is said to have been born. The booklet comes with stickers of monuments and coins. the <i>brochure "Europe - Organising together!"</i>, downloaded from the official website of the Publications Office of the EU, which helps students focus on current affairs (e.g. a European summit or the euro) in order to talk about the functioning of the institutions and EU citizenship. <p>The "specialists" in every "expert group" discuss the main points of their segment and take notes using the "<i>MeetingWords</i>", a web tool for real time collaborative text editing.</p>	
<ul style="list-style-type: none"> Collaboration in groups Online mapping program Online design tool Online word cloud art creator Online mind-mapping tool Digital creations 	<p>Part 3: We present the EU!</p> <p>Students in the "expert groups" decide which elements are interesting, important, exciting and appealing about their topic and they rehearse the presentations they will make to their jigsaw group.</p> <ul style="list-style-type: none"> The "geographers" create an interactive map with the capitals and other important places of the EU countries using the online mapping program "<i>ZeeMaps</i>" (see an example http://i.mp/2HfMPas) The "travel agents" create a digital poster or infographic for the most touristic places in the EU using the online design tool "<i>Easel.ly</i>" (see an example https://www.easel.ly/browserEasel/10777422) The "linguists" create word clouds for languages and dialects of the EU using the tool "<i>WordArt</i>", an online word cloud art creator (see an example https://wordart.com/kfo2vf9csbf1/word-art) The "politicians" create a mind map about what is the EU and how it works using the online mind-mapping tool "<i>Bubbl.us</i>" (see an example http://bit.do/mindmap-europe) 	1,5 hour
<ul style="list-style-type: none"> Groups' presentations Discussion 	<p>Part 4: Back to groups!</p>	1 hour

<ul style="list-style-type: none"> Assessment via an online board game 	<p>The “experts” go back into their jigsaw groups and now each group consists of a geographer, a travel agent, a linguist and a politician. Each student presents her or his segment to the group using the shared link of the presentation created in the expert group. Others in the group are encouraged to ask questions for clarification.</p> <p>In the end, all students in their group test their knowledge in the <i>board game “Let’s explore Europe”</i>, located in the EU Learning Corner.</p>	
<p>Blended and remote learning environments</p> <p><i>Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?</i></p>		
<p>All the activities could be replicated as a remote learning scenario with synchronous and asynchronous online learning activities.</p> <ul style="list-style-type: none"> Part 1 of this scenario could be all implemented in a synchronous online meeting (videoconference). Part 2 and Part 3 could be either implemented in a synchronous online meeting with breakout sessions for the teams’ work or as asynchronous teams’ collaboration. Part 4 could be implemented in a synchronous online meeting (videoconference). As refers to the resources used in the learning design, no additional preparations are necessary because all of them are online, either the learning materials which can be downloaded from the official website of the EU as well as the collaborative web tools students work on. 		

3. Follow up of the Lesson Plan

<p>Follow material and/or homework</p> <p><i>Help learners complete their learning process by suggested materials the educator can suggest that they read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i></p>	<p>Online activity (EU Learning Corner)</p> <p>EU TIMELINE: The European Union through the years</p> <p><i>“Take a trip back in time and discover important moments in history, inventions, major events in sport and society and more, many of which made the EU what it is today. Become a part of it by adding your own dates and stories and printing out your personal timeline!”</i></p>
<p>Evaluation</p> <p><i>You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.</i></p>	<p>We can ask students to fill a questionnaire through an online form with questions about the learning materials, the time spent, the experience in the groups, the online tools, any difficulties or problems they encountered.</p>



3

3.0 School and Classroom Kits
Hackathons for Schools

Author: Ioanna MANAFI

Country or region: Greece

Micro:bit board game

1. Preparing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

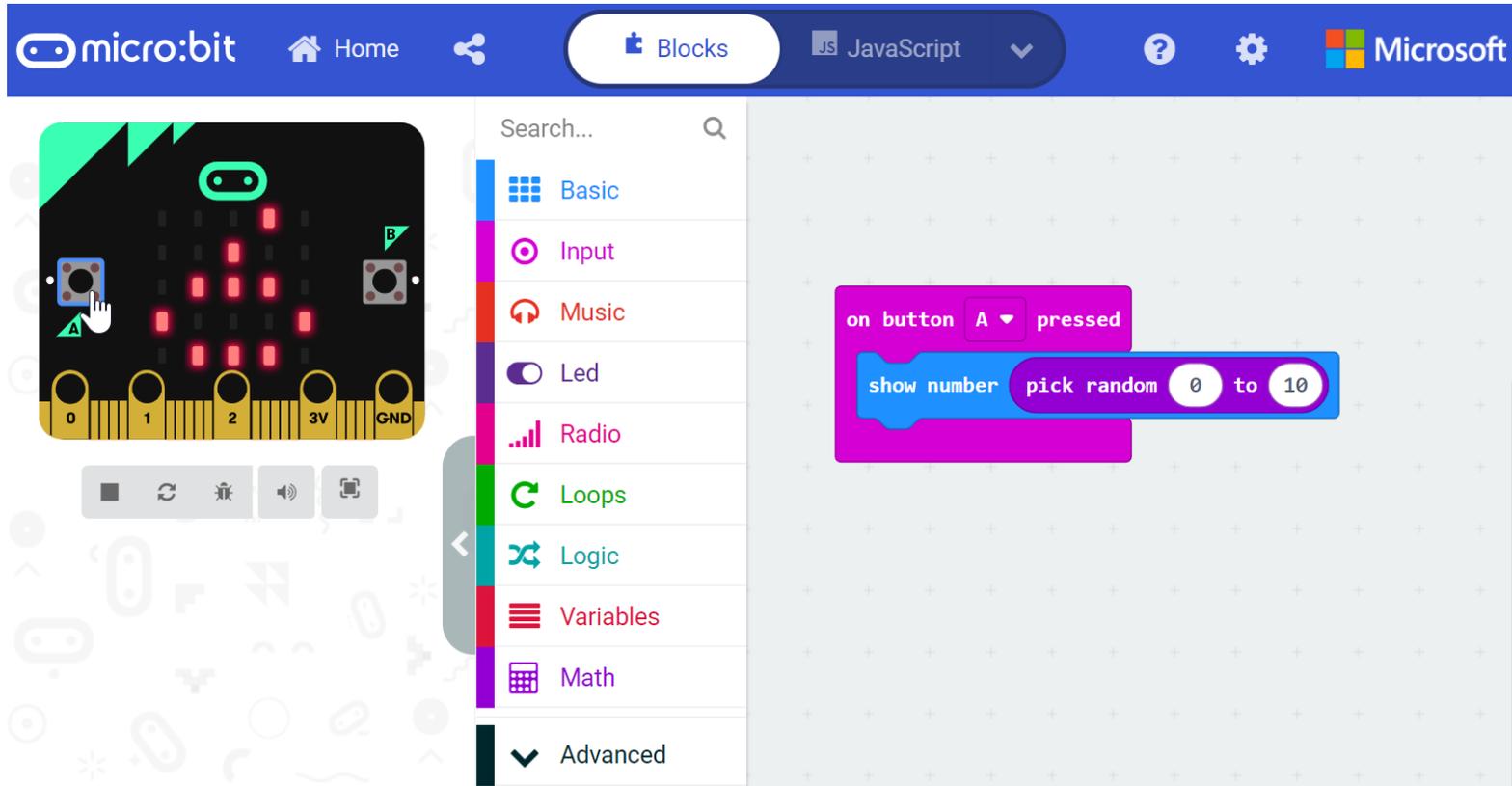
<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>Students in teams design and create their own game board, figurines, rules and program micro:bit as a game dice. They document the work process in a presentation.</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Upper Primary Education (8 – 12 years)</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<p>Computer room or classroom (with one computer/tablet per team)</p>
<p>Learning Objectives</p> <p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<ul style="list-style-type: none"> ● solve problems ● collaborate in a team ● develop creativity ● develop digital competencies
<p>Materials</p>	<p>Felt-tip pens, crayons, pastels, glitters, A3 papers or cardboards, modeling clay, A4 papers, pens, computer (mobile, tablet, desktop or laptop) per team, optional: 1 micro: bit with battery per team</p>

Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

If you don't have micro:bit computers in your school, you can use the [Makecode](#) editor simulator. The best thing with this editor is that you don't need an internet connection all the time. It's enough to be connected just once so the editor will work in offline mode!



2. Developing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion.

Method	Details and description <i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what the teacher is doing, which instructions are the students given, what contents are being covered, etc.</i>	Time <i>Approximately, how long does this part of the lesson plan take?</i>
Discussion: What kind of offline games do we play?	We start a discussion with students about the types of offline games they know. We guide them to board games. Students should list as many different board games as possible, and then analyse them briefly: what are they similar in, what do they have in common? We lead the students to the conclusion that each board game has a theme, figurines, rules of the game and / or some additional cards, and finally a dice.	10 min
Lesson goal introduction	The teacher explains the goal of the lesson: in teams, students will design and make game boards, clay figurines and game rules, and will program micro: bit instead of dice. The teams will share roles: game board designer, dice programmer, game rules designer, figure designer. They need to document the workflow, and upon completion, they will collaboratively create a presentation of their work in an online presentation tool. They will evaluate their own work, the work of their team and evaluate the work of other teams when they try out their game boards.	5 min
Creating teams, sharing materials and roles	Students select the team they want to work in, the teacher makes sure that there is an equal number of students in each team. Students divide work assignments according to their interests and abilities. The teacher distributes the necessary materials to each team.	10 min
Project work	After assigning roles and materials, students start working: choosing a game theme, designing a game board, creating game figures, creating game rules, programming micro: bit. The teacher supervises the work and guides the students if necessary.	150 min
Documenting the work - making a presentation	After completing the work, students collaboratively create a presentation in the online tool (like PowerPoint) and document their work - insert the photos of the workflow, photos of the game board, game figures and a link to the micro: bit program.	45 min
Evaluation	Self-evaluation is done through an online form with several questions: 1. What was your role in making the project? 2. How satisfied are you with your own work?	60 min

	<p>3. Would you change anything and why? As to peer evaluation, each team visits the project stations of other teams - try out their game and review the presentation of the project. They write a short review focusing on what they liked and what could be improved.</p>	
<p>Blended and remote learning environments <i>Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?</i></p>		
<p>This activity can be replicated in a blended environment as well as in a remote learning scenario. Instead of making a physical board and figurines, students can use digital drawing (Kleki, YoiDraw, Sumo.app, Sketch.io), and modeling tools (Paint 3D, Tinkercad). Teams can collaborate in a virtual environment like MS Teams, Google Classroom, Edmodo, etc.</p>		

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

This is more a mini project than a lesson plan. It is multidisciplinary.

3. Follow up of the Lesson Plan

This section is optional, as not every topic or activity has materials available to complete this. However, we encourage you to try to find materials for follow up and to suggest an evaluation method of the lesson plan!

<p>Follow material and/or homework</p> <p><i>Help learners complete their learning process by suggested materials the educator can suggest that they read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i></p>	<p>The teacher instructs the students to look at a website https://microbit.org/projects/make-it-code-it/ where they can find many interesting micro:bit projects.</p>
<p>Evaluation</p> <p><i>You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.</i></p>	<p>The teacher can prepare an online or offline survey in which students will write their opinion about the lesson.</p>

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

Author: Dalia Kager

Country or region: Croatia

Across the Solar System

1. Preparing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>Travel through the Universe using augmented reality thanks to “Merge Cube”. Learn about the characteristics of the planets, solve puzzles and prepare tests for your colleagues.</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Primary Education and first year of Lower Secondary (10 to 12 years old)</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstation etc.</i></p>	<p>The activity takes place in the classroom and in the computer room. Both will be used as a learning space.</p>
<p>Learning Objectives</p> <p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<ul style="list-style-type: none"> ● Learn and review all the content about the Solar System. ● Develop collaboration and communication skills. ● Increase digital competence through knowledge of augmented reality. ● Encourage leadership and creativity skills through the use of digital tools.

<p>Materials</p> <p><i>Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.</i></p>	<ul style="list-style-type: none"> • <u>Class material</u>: folios, cardboard, glue, scissors. • <u>Online material</u>: “Merge Cube” template (you can download it here: https://drive.google.com/file/d/1Kn2Ga-dLSZ4qnpjPF8lhPOVflmm4iXY/view), riddles template (https://drive.google.com/file/d/1KaFaoZWgCD67r7nLIS3NrJf1xY6WIXXZ/view), Galactic Explorer for Merge Cube App (you can download it here: https://miniverse.io/experience?e=galactic-explorer-for-merge-cube), Object Viewer for Merge Cube App (you can download it here: https://miniverse.io/experience?e=object-viewer-for-merge-cube), https://miniverse.io/objects website and Canva App (https://www.canva.com/). • <u>Other material</u>: mobile phones or tablets, computers and internet connection.
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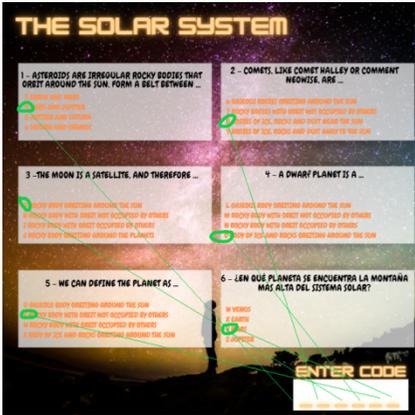
Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

2. Developing the Lesson Plan

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Method	Details and description	Time
	<i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what the teacher is doing, which instructions are the students given, what contents are being covered, etc.</i>	<i>Approximately, how long does this part of the lesson plan take?</i>
Welcome to the Solar System (augmented reality cube)	In this activity the teacher explains the components of the Solar System and the characteristics of its planets. For this, each student builds an augmented reality cube. They need a photocopy of the “Merge Cube” template, scissors, glue and cardstock required (you can download it here: https://drive.google.com/file/d/1Kn2Ga-dLSZ4qnpjPF8lhPOVflmm4iXY/view), cardboard, glue and scissors.	60'

	<p>Students cut out the template, glue it to the cardboard, cut it out again, and assemble the cube following the instructions written on the template.</p> <p>Using the teacher's mobile and the Galactic Explorer for Merge Cube App (you can download it here: https://miniverse.io/experience?e=galactic-explorer-for-merge-cube), they learn to explore the Solar System and to know about the characteristics of the planets of the solar system.</p> <p>As an example, here you have the result: https://m.facebook.com/story.php?story_fbid=182300896697226&id=100047519508940</p>	
<p>What do you know about the Solar System? (quizzes and collaboration game)</p>	<p>Students are divided into groups of four students. The teacher distributes four cards with six multiple choice questions about the Solar System to each group.</p> <p>Each answer will have a number or letter at the beginning. Students will write down the answer chosen in each case, and those answers will form a six character code.</p> <p>An example of a card would be:</p>  <p>Each group, using a mobile or a tablet, and the Merge Cube built last day, introduce the code they have obtained in Object Viewer for Merge Cube App (you can download it here: https://miniverse.io/experience?e=object-viewer-for-merge-cube).</p> <p>Students will see six phrases (one on each side of the cube) about a planet of the Solar System. They have to guess which planet the cube is talking about.</p>	<p>60'</p>
<p>What do my colleagues know about the Solar System? (presentation and collaboration game)</p>	<p>Students are divided into groups of four students. Each group has to create an enigma cube for the rest of their colleagues. The teacher explains to them how to use Canva App (https://www.canva.com/) to make posters or infographics. Each group has to make six posters (one for each side of the cube) about a component of the solar system that is not a planet, and a card with six multiple choice questions about the component they have chosen. The six posters have to be included in the riddles template (https://drive.google.com/file/d/1KaFaZWgCD67r7nLIS3NrJf1xY6WIXXZ/view) and to upload to https://miniverse.io/objects.</p>	<p>60'</p>

	Students send by email their card to other colleagues in order that they discover at home with their Merge Cube the secret component of the Solar System.	
<p>Blended and remote learning environments</p> <p><i>Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?</i></p>		
<p>These activities can be replicated in any learning scenario (online and offline teaching combined or fully online teaching). The materials and tools will be the same, and no activity has to be adapted.</p>		

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

3. Follow up of the Lesson Plan

This section is optional, as not every topic or activity has materials available to complete this. However, we encourage you to try to find materials for follow up and to suggest an evaluation method of the lesson plan!

<p>Follow material and/or homework</p> <p><i>Help learners complete their learning process by suggested materials the educator can suggest that they read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i></p>	<p>If you want to create a 3D image in your Merge Cube:</p> <p>The Object Viewer application allows importing 3D models in any of the following formats .fbx, .obj, .stl, .dae, .blend, .gltf, .zip Each of these imported objects can occupy up to 100Mb, which although it may seem little, allows representing many things with good quality. You can download 3D objects in these formats from different free libraries available on the Internet.</p> <p>Some of the ones that offer free models that I like the most are:</p> <ul style="list-style-type: none"> ● Google Poly ● Sketchfab.com ● Turbosquid.com ● 3DWarehouse ● MyMinifactory
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Evaluation

You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.

Students can give the teacher feedback through a Google Form.

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

Author: Ana Belén Yuste Martínez

Country or region: Spain

Pitch a New Device Project

1. Preparing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>Students react to a creative prompt by using Flipgrid with the goal of inventing a new digital device. After the initial round of ideas, the students will vote for the best 3 and further work in groups to create a digitally supported pitch for an imaginary tech company.</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Upper Primary education, ages 10-12.</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<p>The project could take place in the classroom, but children will need access to a device such as a laptop or tablet in order to access the digital tools used. In case of remote learning, all students will need a space and device to record themselves with and a device with access to the internet.</p>

<p>Learning Objectives</p> <p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<ul style="list-style-type: none"> • In the first stage of the project, students will be able to film themselves and present the goal of their invention in a clear manner providing enough details and reasons to vote for them. • Students will show collaboration skills in the second stage of the project by listening to each other's ideas to create a digital device idea all students of the group had input in. • Students will be able to show understanding of how to use digital tools to create a presentation to pitch their invention by having a presentation that meets all the set criteria.
<p>Materials</p> <p><i>Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.</i></p>	<p>For this project there will have to be at least 3 tablets or laptops with access to the internet for the group work to take place (creating a pitch). Students will need (A3) paper and markers for mind maps and collaborative visual thinking. The room where the presentations take place will need a projector and access to the internet.</p>

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

2. Developing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion.

Method	<p>Details and description</p> <p><i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what the teacher is doing, which instructions are the students given, what contents are being covered, etc.</i></p>	<p>Time</p> <p><i>Approximately, how long does this part of the lesson plan take?</i></p>
Presentation and Discussion	<p>This part is the introduction of the project, where the teacher will discuss the following in this order:</p> <ul style="list-style-type: none"> - <i>Discussion:</i> What are digital devices used for? - <i>Presentation:</i> Various digital devices and jobs/tasks technology is used. - <i>Discussion:</i> What is the goal of each of these devices? - <i>Presentation:</i> Each device has a different purpose. Explain to the group a few main goals of the examples (e.g. smartphone to connect with others, PlayStation to play games, etc.). - <i>Presentation:</i> The aim of this project is to invent a new digital device unknown to mankind as of now, with a specific goal. It could be designed for adults or children and the goal and what the device looks like is completely up to you. 	15min, Day 1
Assignment	<p>The Learning objective for this part of the project is: <i>“Students will show collaboration skills in the second stage of the project by listening to each other’s ideas to create a digital device idea all students of the group had input in.”</i> Introduce the second assignment to the class: Each group needs to collaborate to further develop the goal, usability and design of their digital device. They should also think about who it is for and what the costs will be.</p> <p>The groups will get 40 minutes and plenty of paper to prepare all the information about their imaginary device including the name!</p> <p>The students are encouraged to share their ideas and collaborate as a team, as this is a key part of this project.</p> <p>It is important the teacher provides a paper with the expectations and criteria of this task for the <i>time and task keeper</i> of the group to have with them.</p>	40min, Day 2
Presentations	<p>The 3 groups will present their idea to the panel of the tech company (the teacher and teaching assistant) who will judge the presentation and content according to the criteria previously given to the groups. The panel decides per group if the idea would get imaginary financing or not, this part of the project is not a competition. Ideally all groups will pass in this panel!</p>	20min, Day 3

Blended and remote learning environments

Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?

This project could potentially be carried out in a remote learning scenario too. Children will all need a device ready to connect and ideally also a Google account to use some of the Google apps to make collaboration and presentation smoother. How to carry out the project in remote learning:
Part 1: Explanation videos by the teacher could be made, Flipgrid is accessible to everybody and the voting could be held online. Part 2: Video call with the whole group to explain the task and then separate groups on Google Hangouts are used for the teams to collaborate. Part 3: A presentation in Slides could be worked on as a team whilst being in a Hangouts call. Presentations could be held in a joined call with all students.

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

I chose to have a project where the class is working on for 1 hour a day as it would be more realistic to implement in the schedule of a regular primary school. However, it is possible to use "Day 1" as "Part 1" and just go through all the parts of this project in one day. Timings of the lesson are based on a class of 15 students, keeping in mind that there will be 15 short videos to watch on Day 1 and 3 groups made of 5 students. The more students, the longer the project will take. For bigger groups, the roles during the second part of the project could be split in more.

3. Follow up of the Lesson Plan

This section is optional, as not every topic or activity has materials available to complete this. However, we encourage you to try to find materials for follow up and to suggest an evaluation method of the lesson plan!

<p>Follow material and/or homework</p> <p><i>Help learners complete their learning process by suggested materials the educator can suggest that they read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i></p>	
<p>Evaluation</p> <p><i>You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.</i></p>	<p>You could have a reflective/evaluative activity in the form of an exit ticket to receive feedback on the project.</p>

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

Author: Romy van Zielst

Country or region: Slovenia

Gone with the wind – the digital edition! | GO DIGIT W~

1. Preparing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>Join our new @Gone with the Wind – the digital edition! GO DIGIT W~ Project and learn how to make your own digital wind turbine using simple educational tools as Tinkercad, Scratch, and Lego WeDo 2.0!</p> <p>@Gone with the Wind – the digital edition! GO DIGIT W~</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Upper primary school students 10-12 years old (5th-6th grade).</p>

<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<p>The activities planned for the Lesson “Gone with the Wind – the digital edition! GO DIGIT W~” are going to take place both in class/in the computer room and outdoors. An Internet connection is required. More specifically:</p> <p>1st Lesson: It will take place in class and no special preparations, apart from closing the curtains for the projection, are needed.</p> <p>2nd Lesson: It will take place in the computer room of the school, where the students sit in groups of 3. The session also includes a visit to a University RES Lab.</p> <p>3rd Lesson: It will take place in the classroom and in the computer room as well. For the Skype call, the curtains need to be closed to make sure the clear view of the invited speaker. In the computer room, the students sit in groups of 4.</p> <p>4th Lesson: It will take place in class and in the computer room. In both cases, the students sit in groups of 4. Free space between desks is required for the construction of the wind turbines.</p> <p>5th Lesson: It will take place in the classroom, where students move from group to group by rotation in order to take part in both the design of the poster and the preparation of the Prezi presentation. For the second part of this session, the participation in the “Spring of Sciences” Fair in Brussels, we hope the students will be able to travel to Brussels by the end of the COVID-19 pandemic that has affected the lives of all mankind.</p>
<p>Learning Objectives</p>	<ul style="list-style-type: none"> • Objective 1: To learn and understand how important it is to focus on the use of RES (Renewable Energy Source) and especially the economic and environmental benefits of using wind turbines • Objective 2: To develop digital competences (graphic design, coding, etc.) • Objective 3: To raise awareness on environmentally friendly behaviour • Objective 4: To improve communication skills (public presentation and speaking)

	skills), critical thinking, and collaborative work
Materials Online tools	<ul style="list-style-type: none"> • Notebooks / tablets / computers • Papers • Pencils • Projector • Internet connection • Wind turbine model • Lego Education WeDo 2.0 • Padlet (https://fr.padlet.com/dashboard) • Microsoft office 365 • Tinkercad online app for 3D design (https://www.tinkercad.com/) • Scratch online for coding (https://scratch.mit.edu/) • Prezi (https://prezi.com/) • Whiteboard (https://whiteboard.fi/) • Kahoot! (https://kahoot.com/) • Canva (https://www.canva.com/)

2. Developing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion.

Method	Details and description	Time
	<p><i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what is the teacher doing, which instructions are the students given, what contents are being covered, etc.</i></p>	<p><i>Approximately, how long does this part of the lesson plan take?</i></p>

<p>1st Lesson: History of wind power in Greece Aeolus: the mythical Greek keeper of the winds</p> <p>(brainstorming and discussion)</p>	<p>Using as introduction the text of the Greek Language class of the 5th grade "Our friend, the wind" (in EL: "Ο φίλος μας ο άνεμος") (http://ebooks.edu.gr/ebooks/v/html/8547/2001/Glossa_E-Dimotikou_html_empl/index1_01.html), the students get in touch with the windmill, a representative symbol of the Greek islands of the Cyclades in the old days.</p> <p>The students are called to think and answer the following real-life question asked by the teacher: "How did Greek people use wind power in the old days? How can we use wind power nowadays?".</p> <p>A discussion follows in order to detect students' prior knowledge and any misunderstandings. Then, the students watch a YouTube video (https://youtu.be/YUvgKI6bgUw) on how a windmill works. The concept of Renewable Energy Sources (RES) emerges through discussion and special emphasis is given to wind energy.</p> <p>During the learning process, the teacher accompanies and guides the students to understand why the wind is a renewable source of energy and why there is a special need for usage against environmental pollution. Gradually there is a smooth transition to the subject of wind turbines with the following question "What needs do wind turbines serve in the modern world?". This question is an introduction to the next lesson, during which the wind turbines will be presented.</p>	<p>60 min.</p>
<p>2nd Lesson: From windmills to wind turbines</p> <p>(discussion between students, collection of information on Padlet, experimentation with simulation, visit to the University laboratory, discussion with a scientist)</p>	<p>After being divided into groups of 3, the students gather information in the computer room about the renewable source of wind power and its benefits from the Greek Center for Renewable Energy Sources and Saving website and the website of the Environmental Education Center of Kastoria (in EL): http://www.cres.gr/kape/kidsol/wind/main.htm and http://kpe.kastor.kas.sch.gr/energy1/alternative/eoliki_energy.htm. Then, they are asked to write down the information they collected from these two sites (graphic representation of a wind turbine, what parts it consists of, its usefulness) on Padlet and read their texts in class.</p> <p>After completing the first activity, the students watch a video (in EN: https://www.youtube.com/watch?v=Z5c50-hcDQ) about what the wind turbine is, how it works, and its advantages in terms of environmental protection.</p> <p>The next step is to experiment with simulation (simulation activity in EL from the University of Colorado Boulder website: https://phet.colorado.edu/sims/cheerj/faraday/latest/faraday.html?simulation=generator&locale=el) keeping notes of the required data.</p> <p>Finally, they visit a University RES (Renewable Energy Sources) laboratory at the Aristotle University of Thessaloniki and they meet a scientist in the field of Environmental Engineering. Thus, they have the opportunity to solve questions that have arisen during this lesson related to the topic of wind turbines.</p>	<p>90 min. (in class)</p> <p>90 min. (outdoor activity)</p>

<p>3rd Lesson: What it's really like to be an engineer – We are making our own wind turbine!</p> <p>(skype a scientist, graphic design of digital wind turbines in Tinkercad in the computer room, [optional] 3D printing of graphic design, gathering strong points/weaknesses of different digital wind turbines on Whiteboard)</p>	<p>Skype a scientist: The students discuss in the classroom via skype with a graphic designer who describes his profession and his professional activities and solves questions on how the students can design a wind turbine frame in Tinkercad (https://www.tinkercad.com/).</p> <p>In the computer room, the students work in groups of 4 and, through experimentation, they create their own digital wind turbines in Tinkercad, considering all the information they have collected (how many blades to use, what size the base should be, etc.). Optional activity: 3D printing of students' outputs.</p> <p>The digital wind turbines are presented in class. Once the measurements have been made, a discussion follows about the efficiency of each wind turbine, its strong points and its weaknesses, and what changes should be made to improve them. The discussion is written down on Whiteboard (https://whiteboard.fi/).</p>	<p>120 min.</p>
<p>4th Lesson: From a wind turbine to a wind farm</p> <p>(construction of a wind farm with Lego WeDo 2.0 blocks, production of code with Scratch by students)</p>	<p>After having acquired significant knowledge about wind turbine's structure and function, the students are called to build small models of wind turbines in groups of 4 using Lego WeDo 2.0 bricks. They create a static model which then connects with a coding application (Scratch) in the computer room to make it more functional.</p> <p>The final output is a wind farm consisting of colorful, efficient, and well-designed wind turbines.</p>	<p>90 min.</p>

<p>5th Lesson and “Spring of Sciences” Fair: Our wind farm becomes famous in Europe!</p> <p>(creation of a poster with Canva, Prezi presentation, participation in “Spring of Sciences” Fair)</p>	<p>The last lesson of our learning scenario includes the dissemination of learning products. The students are going to participate in the “Spring of Science” Fair in Brussels!</p> <p>In the classroom, the students design and draw a poster related to their wind farm, using the graphic design platform Canva. They also make a Prezi presentation to demonstrate to the other participants-students their learning process and the construction of the final result.</p> <p>The assignment/assumption of professional roles to/by students is the most important aspect in the participation in the “Spring of Sciences” Fair. The students are called to act as “engineers” and try to present their wind farm. This means during the exhibition they have to explain how wind turbines work, why they are Renewable Energy Sources (RES), and different sustainable ways for their construction.</p>	<p>180 min. (in class)</p> <p>2 days (“Spring of Sciences” Fair)</p>
<p>Blended and remote learning environments</p> <p><i>Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?</i></p>		
<p>It could be possible for the 1st lesson to take place in a blended learning environment, both remotely by teleconference and in class. But as we strongly support collaborative work, as well as human contact, we would recommend you to organize and implement our lesson “Gone with the Wind – the digital edition! GO DIGIT W~” in the manner described above.</p>		

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

Please replace any activities planned in Greek context with activities in your local context (brainstorming with texts and videos in your national language, visit to a local University, etc.).

3. Follow up of the Lesson Plan

This section is optional, as not every topic or activity has materials available to complete this. However, we encourage you to try to find materials for follow up and to suggest an evaluation method of the lesson plan!

<p>Follow material and/or homework</p> <p><i>Help learners complete their learning process by suggested materials the educator can suggest that they read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i></p>	<p>An easy DIY wind turbine for students who want to practice in home with simple materials:</p> <p>https://www.youtube.com/watch?v=KOd6-PFkEy8</p> <p>© 2016 Exploratorium, all rights reserved.</p>
<p>Evaluation</p> <p><i>You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.</i></p>	<p>Each student will fill a satisfaction survey questionnaire in Kahoot. At the end of the last lesson, students will be asked to evaluate the lesson. More specifically, they will answer two main open questions "According to your opinion, which are the strongest and the weakest points of this lesson? What could be done to improve it?" and "Did you find the lesson interesting? Justify your answer".</p>

Author: Eleni Kalesi

Country or region: Greece

The schoolyard of our dreams

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1. Preparing the Lesson Plan

<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>Can we imagine and create the ideal schoolyard so as to be more exciting and interesting? Can we dream, set small and big goals, make plans and lead the way to make them come true? Through this project, preschoolers dream of the schoolyard they desire, organize activities, use ICT tools for making decisions and for their final products and cooperate to make their dream come true.</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Preschool and Primary Education</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<p>The project will take part in the classroom with the use of the class computer and the tables and outside in the schoolyard. No other requirements are needed</p>
<p>Learning Objectives</p> <p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<ul style="list-style-type: none"> • Communication and cooperation through ICT tools • Ability to make assumptions, gather information and exchange opinions • Developing skills of solving problems in a creative way and enrich creativity • Taking initiatives on active roles and developing social skills through group missions
<p>Materials</p>	<ul style="list-style-type: none"> • Camera for taking photographs • Google Earth and Google Search: for searching information about other schoolyards

<p><i>Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.</i></p>	<ul style="list-style-type: none"> ● Wordcloud: for the first thoughts about their dreamy schoolyard ● Kahoot.it: for the first voting ● Padlet: for the before-after photos of the yard ● Artsteps.com: for the VR presentation of the schoolyard ● Scratch.jr: for the creation of a game with students' avatars and the schoolyard ● Audacity: for the record of the students ideas and opinions ● Colorillo: for collaborative real-time drawing ● collaborative posters (Canva) ● The e-book of our dreamy yard (storyjumper) ● The sensory path in our yard (wall colours, brushes) ● Student evaluation (Mentimeter, Google Forms, white papers and coloured pencils) ● White papers, coloured pens and pencils for drawings
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Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

2. Developing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion.

Method	Details and description <i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what is the teacher doing, which instructions are the students given, what contents are being covered, etc.</i>	Time <i>Approximately, how long does this part of the lesson plan take?</i>
Discussion and Research	First, in the classroom, we discuss with the students about their activities in the schoolyard, the things they like and dislike and the things they would like to create in the schoolyard. We write them down or draw them on the whiteboard. We use Google Earth and Google Search for searching information about other schoolyards in other countries and we decide to make a plan of the dreamy schoolyard	60 minutes

	which students can draw in a collaborative tool called Colorillo or on white papers with coloured pencils. We also create a wordcloud with the students' first thoughts about their dreamy schoolyard.	
Setting goals: a visit to the schoolyard, creating a voting	With the help of a camera we visit our schoolyard and start taking photographs of the spots we want to enhance. We create a Before-After Padlet board where we insert the photographs we took at this point and keep in mind to insert photographs after the changes so as to make comparisons. After that, we make a list of the students' suggestions and record their opinion using Audacity and also create an online voting on Kahoot.it in order to choose the first 3 suggestions for alteration.	60 minutes
Planning	After the voting results, we form 3 teams in order to take action. Let's say, for example, that the results were to plant flowers, to create a coloured walking path on the ground and to make insect hotels. Students will choose the team they would like to work. We make sure for students to realise that all teams need to have the same number of members.	15 minutes
Designing and Creating	Each team works in its own way and pace and members draw or write down their alterations. If we use the example above, the 1st team uses small plants and seeds, soil and pots and after planting, places the pots in the schoolyard. The 2nd team uses wall colours and chooses a space on the schoolyard's ground to create the path. And the 3rd team uses plastic bottles, cans, straws, papers and makes the insect hotels which finally hang under the yard's trees. After the teams finish, we visit the schoolyard as a class and take photographs of the spots that were altered and insert them in the Before-After Padlet in the After section	60 minutes
Collaborative ICT Products	Also the class creates some collaborative products such as: <ul style="list-style-type: none"> • a collaborative poster with the 3 teams actions in Canva.com • The e-book of our dreamy yard with the students drawings in Storyjumper • In Artsteps.com, a VR presentation of the schoolyard with the use of the photographs after the alterations. • Scratch.jr: for the creation of a game with students' avatars and the schoolyard 	60 minutes

<p>Assessment</p>	<p>In the Before-After Padlet board we can make comparisons and assess teams' work. Also, student evaluation can take place in Mentimeter if students can write or in Google Forms with the use of simple pictures as choices and also with white papers and coloured pencils.</p>	
<p>Blended and remote learning environments <i>Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?</i></p> <p>Since this lesson plan is about alternating and enhancing the schoolyards' environment I think it can only take place onsite</p>		

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

The teacher, considering that students learn differently, uses a variety of teaching methods and assessment methods. The learning process in such an educational context facilitates the active and equal participation of all students, giving them the opportunity to develop inclinations and skills that will lead to the development of self-awareness, experiencing success, compensatory factors reducing school failure (Kappas, 1999). Acquiring knowledge in a learning environment suitable for the child's receptive and mental abilities will develop self-confidence and self-esteem leading to positive school achievements and a better relationship with the school (Triliva & Chimienti, 2000; Makri-Botsari, 2001).

3. Follow up of the Lesson Plan

This section is optional, as not every topic or activity has materials available to complete this. However, we encourage you to try to find materials for follow up and to suggest an evaluation method of the lesson plan!

<p>Follow material and/or homework</p> <p><i>Help learners complete their learning process by suggested materials the educator can suggest them to read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i></p>	
<p>Evaluation</p> <p><i>You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.</i></p>	<p>The final evaluation of the students can be done with the use of Google Forms . The questions are accompanied with pictures for easier use. Each student fills the form with the assistance of the teacher. Or also with Mentimeter for older students. For better evaluation worksheets can be used as well.</p>

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

Author: Katerina Spitsa

Country or region:Greece

Real Dimensions of the Countries of the World

1. Preparing the Lesson Plan

<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>The real sizes of the countries of the world</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Lower secondary (12 years)</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<ul style="list-style-type: none"> • The classroom and the multimedia laboratory • Google Classroom
<p>Learning Objectives</p> <p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<ul style="list-style-type: none"> • Objective 1 - To take measures to make sure learners' physical, psychological and social wellbeing while using digital technologies. To empower learners to manage risks and use digital technologies safely and responsibly • Objective 2 - To incorporate assignments and learning activities which require learners to express themselves through digital means, and to modify and create digital content in different formats. To teach learners how copyright and licenses apply to digital content, how to reference sources and attribute licenses

	<ul style="list-style-type: none"> · Objective 3 - To incorporate learning activities, assignments and pieces of assessment which require learners to articulate information needs; to find information and resources in digital environments; to organise, process, analyse and interpret information; and to compare and critically evaluate the credibility and reliability of information and their sources. · Objective 4 - To incorporate learning and assessment activities which require learners to identify and solve technical problems or to transfer technological knowledge creatively to new situations.
<p>Materials</p> <p><i>Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.</i></p>	<p>The tools and the app of GSuite for Education like Google Drive, Google Forms, Google Classroom, Google Presentation, Google Meet and Gmail. In addition, Kahoot will be used for gamification of the lessons. Furthermore, web resources like The True Size (www.thetruesize.com) and Youtube will be used. For the final project work the students can use Canva (www.canva.com).</p>

2. Developing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

Method	Details and description	Time
	<p><i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what the teacher is doing, which instructions are the students given, what contents are being covered, etc.</i></p>	<p><i>Approximately, how long does this part of the lesson plan take?</i></p>

Visual learning, discussion, Quiz game	The lesson starts with a public presentation of the planisphere. It is very important to show the sizes of the countries of the world in a classic political map. Then, after a discussion about the sizes of many countries, the teacher proposes a quiz made with Kahoot. Is Italy bigger than the Congo? Is Brazil smaller than Australia? Is South Africa bigger than Germany? Moreover, who has the largest territory between the United States and Canada? In this way the students challenge each other and are involved in the topic.	1 hour
Interactive lesson, Presentation, problem posing	In the second lesson, the teacher explains that geographic maps aren't very objective. The maps reflect the point of view of the authors. Therefore, after this clarification, the teacher asks the students to go to Google Classroom and to see the geographic maps used in Europe, in the United States, in China, in Australia and in South Africa. The teacher asks the students to fill in a Google form to highlight all the differences between the various geographic maps. The students need to understand why these differences between different maps exist.	2 hour
Collaborative learning, peer tutoring	In the third lesson, the teacher divides the class into groups of three students. Then he has the students connect to the Thetruesize.com site. Here students can play with the real dimensions of the states and compare them with each other. The teacher proposes fifteen comparisons. In this way, the students understand how our origin strongly influences our point of view.	2 hour
Cooperative learning, project work	In the fourth lesson, student groups have to create a social campaign to explain the real size of the countries of the world. Students can use Canva, a very useful website for presentations and for creating content on social networks, or Google Presentation.	2 hour
Presentation, Debriefing	The students show their works and explain the reasons that drove their content creation. The teacher intervenes to ask for explanations and direct the discussion. After the presentation of each group, the teacher proposes a final discussion to clarify the last doubts. Then he gives the students a debriefing quiz.	1 hour
Blended and remote learning environments <i>Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?</i>		
Students can do the activities of the fourth lesson online. They can use Google Meet under the supervision of the teacher. In fact, students can use sharing tools to work better.		

Other

I think this lesson can be replicated in different contents because it interests students from every country. It is a fairly simple activity to do. Free digital tools are used in each lesson.

3. Follow up of the Lesson Plan

<p>Follow material and/or homework <i>Help learners complete their learning process by suggested materials the educator can suggest that they read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i></p>	<p>Students have access to all materials on Google Classroom. The teacher also offers Youtube videos to explain the topic well.</p>
<p>Evaluation <i>You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.</i></p>	<p>The teacher evaluates the learning process and the presentation of the final project work.</p>

Author: Alessandro Buttitta

Country or region: Italy

Solutions to limit environmental pollution

1. Preparing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>In the ninth grade curriculum, one of the topics refers to limiting environmental pollution. Students will carry out, in a team, a project to identify technical-scientific inventions applicable (or already applied) for this purpose. For documentation they will use sources indicated by the teacher and/or similar, identified by the students. For presentation, students will use various favorite tools (for example, Google site, Google slides, Web page)</p> <p>Topics: robots, renewable energies, smart materials, bio-fuels, anti-pollution software</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Lower Secondary (14 to 16 years)</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<p>The activity takes place exclusively online: students participate in classes on the Google Classroom platform, to establish the coordinates of the project (structure, objectives, teams, responsibilities, documentation sources etc.) work on collaborative platforms (Lino) to carry out the learning activities and present the results of the project (thematic site) in a Google Meet, after agreeing, collaboratively, what exactly they will include in the presentation.</p>

<p>Learning Objectives</p> <p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<ul style="list-style-type: none"> · Objective 1: Selection and attractive organization of useful information to illustrate at least 5 examples of human intervention in order to limit environmental pollution · Objective 2: Creative use of digital tools to present the results of collaborative activity · Objective 3: Cooperation with teammates to obtain project results · Objective 4: Take the initiative to solve problems and take responsibility for teamwork
<p>Materials</p> <p><i>Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.</i></p>	<p>To apply this lesson plan, each student must have access to a device with an Internet connection. Documentation sources (minimum list of links):</p> <ul style="list-style-type: none"> http://www.ecomagazin.ro http://www.realitatea.net http://www.ziare.com/magazin/inventii http://transporter.ro http://www.descopera.ro http://marketervirtualevents.wordpress.com http://13by-ycket.blogspot.ro http://www.referatele.com http://www.naturalist.ro

2. Developing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion.

Method	Details and description	Time
	<p><i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what the teacher is doing, which instructions the students are given, what contents are being covered, etc.</i></p>	<p><i>Approximately, how long does this part of the lesson plan take?</i></p>

<p>1. Collaboration game</p>	<p>Icebreaker 1 Using the AnswerGarden application (https://answergarden.ch/), students answer a question that aims to motivate them for the activities that will take place in the project "If you had an enchanted wand with which you could eliminate the things you touched, which of the sources of environmental pollution would be your target?" Result: a list of topics to be approached.</p>	<p>10 min</p>
<p>2. Discussions</p>	<p>Discussions The teacher guides the students' discussions based on the answers to the question asked, in order to highlight the identified sources of pollution.</p> <p>The synthesis of their answers allows the teacher to determine the content areas that will be addressed in the project. If many such areas have been registered, they are ranked in order to be able to correlate them numerically with the class size, and with the number of teams of 4-5 students, which will be formed. If there are too few, the teacher can direct the students' attention to other areas not needed by the students.</p> <p><u>The results</u> of this activity are:</p> <ul style="list-style-type: none"> · finalizing the list of topics to be approached; · establishing the composition of the work teams; · setting the deadlines corresponding to the work stages (documentation, organization / structuring of information, ICT implementation, actual presentation); · listing the project results; · collaborative completion of the criteria lists for self-evaluation and inter-evaluation. 	<p>40 min</p>
<p>3. Presentation 4. Collaborative activity in work teams</p>	<p>Documentation At the first working meeting, the teacher introduces students to techniques for efficient search for information on the topic of each team.</p> <p><u>Result:</u> provisional list of documentation sources. During the time allotted for the documentation, the students of each team look for information about the topic assigned to them. In this phase, each student collects information taking into account the impact / novelty / creativity / utility and organizes them as concisely, attractively and captivately (text and image) as possible. Students periodically exchange accumulated information to avoid overlaps.</p> <p><u>Result:</u> synthesis of information + illustrations to be presented at the end of the project. For example, one of the teams collected information about: robotic fish that detect pollution, artificial</p>	<p>6 days (6x2 hours/day) + 30 min</p>

	<p>trees that absorb CO2 from the atmosphere, solar powered appliances, oil obtained from plastic, gasoline obtained from the air, bio street lamps.</p> <p>Upon completion of the documentation activity, all students in the class will participate in an inter evaluation activity on how they collaborated in the team: they will answer the questions from a list of criteria (completed and initially agreed) and implemented in Google Forms.</p> <p><u>Result:</u> evaluation of collaborative activities.</p>	
5. Collaboration game	<p>Icebreaker 2</p> <p>Using the Word Cloud application (https://wordart.com/), students answer a question that seeks to identify their preferred IT tools for presenting project results.</p> <p>"My favorite tool for presenting documentation results is ..."</p> <p><u>Result:</u> Each team establishes through negotiation between the team members, the tool they will use to implement the results of the documentation.</p>	20 min
6. Collaborative activity in work teams	<p>Implementation</p> <p>In the time allotted for implementation, the students of each team present the information and illustrations collected in a form as attractive and exciting as possible, using the computer tool previously established.</p> <p><u>Result:</u> Presentation of each team, using the chosen tool.</p>	4 days (4x2 hours/days)
7. Presentation 8. Inter-evaluation	<p>Presentation</p> <p>Each team appoints a representative who presents online (Google Meet) the result of the work in that team to all colleagues.</p> <p>The members of the other teams use a criteria list (initially agreed and possibly completed along the way) to assess the content of the presentation and how it was done. The criteria list is completed online in a Google Forms form, being implemented by the teacher.</p> <p><u>Result:</u> Presentation of the project results by the representative of each team.</p>	10 min/team
9. Discussions	<p>Feedback</p> <p>After completing all presentations, the teacher analyzes the pieces of evaluation received and communicates the assessment of colleagues to the work teams. The respective pieces of assessment contain references to the organization of information + illustrations but, especially, to the concrete way of presentation (clarity, conciseness, impact etc.).</p> <p><u>Result:</u> Analysis of the strengths / weaknesses of each team and recommendations for improving</p>	30 min

	collaborative activities.	
Blended and remote learning environments <i>Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?</i>		
<p>The lesson was designed in the online version.</p> <p>The lesson can also be adapted for the blended learning environment with minimal modifications:</p> <ul style="list-style-type: none"> - activities 1, 2, 3, 7, 8, 9 can be organized face-to-face (in this case, the classroom furniture will be organized so as to allow the team to occupy a common space; - each student will have access to a device connected to the Internet); - activities 4, 5, 6 will be carried out online, individually and / or collaboratively. 		

3. Follow up of the Lesson Plan

Follow material and/or homework <i>Help learners complete their learning process by suggested materials the educator can suggest that they read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i>	For activity 1 the link is useful: https://answergarden.ch/ For activity 5 the link is useful: https://wordart.com/ List of links indicated in "Materials" Criteria list for collaborative activity (suggested) - Annex 1
Evaluation <i>You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.</i>	Satisfaction Questionnaire (Google Forms)

Appendix 1 Rubric for Assessing Students' Collaborative Skills

Criteria	Descriptors				Score & Comments
	4 points	3 points	2 points	1 point	

Focus on tasks	<i>The focus of the work was constant and all tasks were completed properly.</i>	<i>The focus was mostly directed to what should be done and most of the tasks have been completed properly.</i>	<i>The focus was often directed to what should be done, but some tasks were not completed properly.</i>	<i>Rarely the focus of the work was directed to what should be done and many tasks were not completed properly.</i>	
Preparedness	<i>Always prepares the necessary materials and is always ready to work.</i>	<i>Almost always prepares necessary materials and is always ready to work.</i>	<i>Almost always prepares materials, but sometimes be encouraged to work.</i>	<i>Often forget to prepare the necessary materials or is rarely ready to get to work.</i>	
Mutual help	<i>Whenever there were difficulties, these were faced and help was provided.</i>	<i>Most of the difficulties were faced and nearly always help was provided.</i>	<i>Many of the difficulties were faced and often help was provided.</i>	<i>Difficulties were rarely faced and help was rarely provided.</i>	
Contributions	<i>Always gives useful ideas to the team. It is one of the group leaders who has worked hard.</i>	<i>Often gives useful ideas to the team. It is a very important member of the group and does her or his best to fulfill their tasks.</i>	<i>Sometimes gives useful ideas in the team. Does what is necessary to complete the tasks.</i>	<i>Rarely gives useful ideas in the team. Sometimes refuses to participate.</i>	
Responsibility and reliability	<i>Systematically punctual for group meetings and does not depend on others to do the assigned work.</i>	<i>Usually punctual for group meetings and most of the time does not depend on others to do the assigned work.</i>	<i>Often punctual for group meetings and most often does not depend on others to do the assigned work.</i>	<i>Rarely punctual for group meetings and most often depends on others to do the assigned work.</i>	
Oral presentation	<i>Gains attention of audience.</i>	<i>Gives details or an amusing fact, a series of questions, a short demonstration, a colorful visual or a personal reason why they picked this topic.</i>	<i>Does a two-sentence introduction, then starts speech. Gives a one-sentence introduction, then starts speech.</i>	<i>Does not attempt to gain attention of audience, just starts speech.</i>	
Using ICT tools	<i>Always use a wide range of ICT tools and always likes to learn to use new tools.</i>	<i>Usually uses a wide range of ICT tools and likes to learn.</i>	<i>Often uses ICT tools and likes to learn to use new tools.</i>	<i>Never uses ICT tools nor likes to learn about new tools.</i>	

Time management	<i>Manages time well throughout the project.</i>	<i>Usually uses time well throughout the project, but may omit some things.</i>	<i>It tends to be long, but always completes tasks within the deadline.</i>	<i>Struggling to meet deadlines.</i>	
Creativity	<i>Always develops her/his creativity while working on this project because her/his always creates its own material and includes a lot of creative elements that helps create interesting results.</i>	<i>Usually develop her/his creativity while working on this project because he/she usually creates her/his own material and includes a lot of creative elements that helps create interesting results.</i>	<i>Often develop her/his creativity while working on this project because they often create their own material and include a lot of creative elements that help create interesting results.</i>	<i>Rarely develop her/his creativity while working on this project because he/she usually creates her/his own material and includes a lot of creative elements that helps create interesting results.</i>	
Final score:					

Author: Bălăsoiu Doinița

Country or region: Craiova, Romania

Escape Room Matematicando

1. Preparing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>The study of mathematics in the form of a game will be proposed to my students. Divided into small groups, students will develop a virtual and immersive EscapeRoom using the Thinglink application; a multi-device application that allows you to create 360 ° interactive images. The enigma contained in the "hot" points of the image will be recreational mathematics exercises developed by the students. If the enigma is solved, they give away letters, whose anagram gives to the team the key to complete the game and exit the virtual room.</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Lower secondary education (12/13 years old)</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<p>The activity will take place partly in the classroom and partly in the computer lab. Students in the classroom will design the EscapeRoom structure and elaborate the math questions. In the computer lab they will search the web for 360 ° images in which the interactive "digital locks" containing the questions will be inserted.</p>
<p>Learning Objectives</p> <p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<ul style="list-style-type: none"> • Knowing how to design and create a digital EscapeRoom with Thinglink 360 °, knowing how to organize contents and materials. • Knowing how to process mathematical questions that are not easily found through Google searches and that require demonstration of skills acquired through the study and application of mathematics and geometry. • Be able to organize work both independently and by collaborating with one's peers to solve logical-mathematical problems.

	<ul style="list-style-type: none"> • Be able to search online for reliable sources and material (photos, videos, etc.) that can be included in their presentation, learning to respect copyright.
Materials <i>Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.</i>	<ul style="list-style-type: none"> • Textbook, • Thinglink software, • Google search, • pc, • smartphone, • cardboard VR viewer

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

2. Developing the Lesson Plan

In order to replicate your lesson plan, other educators need to understand clearly each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion.

Method	Details and description <i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what is the teacher doing, which instructions are the students given, what contents are being covered, etc.</i>	Time <i>Approximately, how long does this part of the lesson plan take?</i>
Game	Students divided into groups will propose to solve virtual EscapeRooms with the use of their mobile phone.	60 minutes
Discussion	The teacher will propose to students to create a virtual and immersive EscapeRoom that has math questions to solve.	30 minutes
Collaboration	The students subdivided into groups will elaborate the math questions to be inserted in the padlocks, they will search the web for the 360 ° images in which they will insert the interactive padlocks.	60 minutes

Role-play game	Students will challenge their classmates to play and solve the EscapeRoom.	30 minutes
Assessment	Students who have made the game will be given a self-assessment questionnaire. https://forms.gle/QRzxx6c7NPstweKa9	60 minutes
Blended and remote learning environments <i>Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?</i>		
<p>The whole activity can also be performed remotely, alternating synchronous and asynchronous parts. In synchrony, during a video lesson, the teacher will guide the students in web searches or suggest the type of questions to be developed. The part relating to the creation of the Escape could be carried out by working on the Escape itself remotely and in collaboration. The challenge to the companions could take place via videoconference through the screen sharing software. The questionnaires instead can be administered in the classroom.</p>		

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

3. Follow up of the Lesson Plan

This section is optional, as not every topic or activity has materials available to complete this. However, we encourage you to try to find materials for follow up and to suggest an evaluation method of the lesson plan!

Follow material and/or homework <i>Help learners complete their learning process by suggested materials the educator can suggest them to read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i>	https://www.thinking.com/edu https://eduescaperoom.com/generator-candado-digital/?fbclid=IwAR0kKmayeVkWu1ReS5cJccUocJnZSfl4zJAKDQ0ulleutUxS9gj9Vam41iM https://pixabay.com/
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Evaluation

You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.

Direct observation with evaluation through the following heading

<https://docs.google.com/document/d/1pIX-2ZA9kksLvSNQZgzloHH1Tn-0LoO8yYLM4IkhnNA/edit?usp=sharing>

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

Author: Giovanna Giannone Rendo

Country or region: Catania, Italy

Representing “school” topic in literature, music and film

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

1. Preparing the Lesson Plan

<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>Even if it seems hard to believe, the school's topic often inspires creators, from writers to musicians. Over time, memorable works about the school have been created, in which we all find ourselves, in one form or another.</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Lower Secondary (12 to 16 years)</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<p>The activity should take place in a classroom, but it can be adapted for an online lesson too. In a classroom you should have an internet connection, a projector and students should have the possibility to access the internet from a device (laptop/ tablet/ smartphone). Before the projection you should be sure that the curtains are closed and the students can watch the materials or you can invite them to watch the materials on their own devices.</p>
<p>Learning Objectives</p> <p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<ul style="list-style-type: none"> ● students will enrich their knowledge of literature, cinematography and music as means of expression; ● students will gain new knowledge about how a subject (“school”) is dealt in different arts / fields; ● students will develop critical thinking, analyzing different perspectives on the same topic; ● students will develop their own, assumed attitude towards school - as a subject that is part of their lives
<p>Materials</p>	<p>All you need is a good internet connection to access the following links:</p>

<p><i>Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.</i></p>	<ol style="list-style-type: none"> 1. https://poets.org/poem/hand-0 2. https://www.youtube.com/watch?v=YR5ApYxkU-U <p>3a. https://www.youtube.com/watch?v=xv9JOVkrR5PQ&list=PL2n_-l6rmlblskSGLG5A9l0uov1vawWOO&index=11</p> <p>3b. https://www.youtube.com/watch?v=7NQn8Ut64bA&list=PL2n_-l6rmlblskSGLG5A9l0uov1vawWOO&index=33</p> <p>Also, you will need some previous “research” about the authors and the context of the 3 works.</p>
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Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

I advise you to watch in advance with your students the full movie “Dead Poets Society” for a better understanding of the context of the extracted fragments.

2. Developing the Lesson Plan

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Method	Details and description	Time
	<p><i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what is the teacher doing, which instructions are the students given, what contents are being covered, etc.</i></p>	<p><i>Approximately, how long does this part of the lesson plan take?</i></p>
Discussion	The teacher discusses with the students about the topic of school in general and how it is approached in literature.	5 minutes

Presentation	<p>The teacher will read / listen / watch with the students the three works - the poem "The Hand" by Mary Ruefle, the song "Another Brick in the Wall" by Pink Floyd and the scenes from the movie Dead Poets Society.</p> <p>The teacher asks students what the 3 works have in common and if they can identify similarities and differences.</p>	15 minutes
Team work	<p>-The teacher divides the class in groups of 4 - 5 students.</p> <p>-Each group will analyze one of the 3 works (the teacher decides who and what work to analyze, the idea is to have at least one group for each of the 3 works).</p> <p>-The students analyze the text / song / fragment of the film, taking into account the following aspects:</p> <ul style="list-style-type: none"> ● What is the message? ● What means of expression are used to convey the artistic message? ● What is an idea in which they, as a group, find themselves? ● What is an idea that contradicts them and with which they do not agree? ● What would have changed if they had been in the place of the creator of that work? 	20 minutes
Presentation 1	<p>-The groups will present their work shortly in a catchy message to attract the others.</p> <p>-The groups will continue the work at home, as a team work too.</p>	10 minutes
Presentation 2	<p>-The next class, each group will have a presentation of their work summarized in a digital poster / other media product that can be posted on a Padlet, for example.</p>	35 minutes
Discussion	<p>To conclude on how the "school" theme is reflected in different artistic environments, the teacher discusses with the students about their posters, and about their findings on how the school theme is treated in art.</p>	15 minutes

Blended and remote learning environments

Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?

The lesson can be replicated in a blended learning environment or in a remote learning scenario. To adapt the scenario you should use a platform that allows team work (for example if you use Zoom as a platform for your online/ blended classes, you can use the breakout rooms option to easily divide the students in groups). Basically, the tools you need are the same - good internet connection, the possibility for students to see the 3 works from their own devices and, of course, an integrated platform on which to keep your classes (Microsoft Teams, Google Classroom etc). In fact, the advantage in these variants is that the platforms allow the loading of projects directly into their space.

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

3. Follow up of the Lesson Plan

This section is optional, as not every topic or activity has materials available to complete this. However, we encourage you to try to find materials for follow up and to suggest an evaluation method of the lesson plan!

<p>Follow material and/or homework <i>Help learners complete their learning process by suggested materials the educator can suggest them to read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i></p>	<p>-The teacher can recommend to students to watch the entire movie "Dead Poets Society" (or other movies about the school such as "Pay it forward" or others from the list below): https://www.alleducationschools.com/blog/movies-about-teachers/</p> <p>-A short history of "Another brick in the Wall" it could be necessary to a better understand of the message: https://en.wikipedia.org/wiki/Another_Brick_in_the_Wall</p> <p>-Other poems about the schools can be read here: https://poets.org/text/poems-about-school?page=4</p>
<p>Evaluation <i>You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.</i></p>	<p>The teacher can ask for feedback from students using one of the tools: strawpoll.com, scrumblr.ca, poll.ly, padlet.com I recommend a short question about the content of the lesson and/ or about the works they had to analyze.</p>

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

I really recommend you to replicate this lesson, the students will like it, because, beyond the works analyzed, this lesson is about school, and about how they perceive it.

Author: Anamaria Ghiban

Country or region: Romania

Online Distance School Teaching Violence Prevention

1. Preparing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion

<p>Brief description</p> <p><i>How would you summarize your lesson plan in a Tweet? In two or three lines briefly state the aim of the activity, the topics it covers, and the tools used.</i></p>	<p>The aim of activity: Teach students about different types of violence and how to deal with it</p> <p>Topic: Theme: Prevention, Topic: Violence Prevention</p> <p>Tools used: Teams video meetings, Power Point presentations, online google forms , Scratch, youtube videos 90 min (45+45 min)</p>
<p>Age group</p> <p><i>For which age group is the activity recommended? You can either narrow it down to a concrete age, or use the following categories: Preschool, Primary Education (6 to 12 years), Lower Secondary (12 to 16 years), and Upper Secondary (16 to 18/19 years)</i></p>	<p>Upper Secondary Education (14-19), first and second grade 14-15 years old</p>
<p>Learning space</p> <p><i>In what type of room or space should the activity take place? The classroom, the computer room, the gym, at home, etc. Does the space have any requirements or need any preparations? For instance, closing the curtains for a projection, or moving desks to free space, creating different workstations etc.</i></p>	<p>As long as we are in distance schooling again and all our students have devices, pc, laptops, tablets, mobile phones, cameras and are learning online we can have this kind of lessons. They are learning from their homes. This is a good example of how one can create a lesson for students in different environments, each of them in their home.</p>
<p>Learning Objectives</p>	<ul style="list-style-type: none"> ● Spot and identify types of violence ● Describe what is wrong in a situation

<p><i>What are the goals of your lesson plan? Please, phrase them from the point of view of the learners: the knowledge learners would acquire, the skills they would gain, and the attitudes they would develop. Adhere to the SMART principle as much as possible and try to keep it simple with no more than four objectives.</i></p>	<ul style="list-style-type: none"> • Give ideas and tips/types of behaviour to get out of the situation • Exercise using Teams meeting, videos, ppt, google forms • Exercise online oral presentation using ppt, Teams meeting • Developing social skills, teamwork, timing, punctuation
<p>Materials</p> <p><i>Which materials are required to carry out your lesson plan? Please, keep in mind that the less materials and the more affordable they are, the easier it will be to replicate your lesson plan. You can also list optional materials that are not required to successfully complete the lesson plan, but that would add value to the lesson.</i></p>	<ul style="list-style-type: none"> - Devices pc, laptops, tablets, mobile phones, cameras

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

As long as we are in distance schooling again and all our students have devices, pc, laptops, tablets, mobile phones, cameras and are learning online we can have this kind of lessons. They are learning from their homes. This is an good example who one can crate lesson for students in different environments

2. Developing the Lesson Plan

In order to replicate your lesson plan, other educators need to clearly understand each step of the process. Please, use clear language, add the necessary details, and make sure that a person who is not familiar with your teaching context and methods is able to replicate the lesson plan. We recommend dividing the lesson plan into steps, and to detail each step in one row of the table below. For instance, a simple lesson plan can be divided into an introduction, a game, and a debriefing discussion.

Method	Details and description <i>Provide details of the content of this activity. make sure that the lesson plan can be replicated by other educators by being detailed and using clear language. For instance, describe which materials are being used, whether students work individually or in groups (and the size of those groups), what is the teacher doing, which instructions are the students given, what contents are being covered, etc.</i>	Time <i>Approximately, how long does this part of the lesson plan take?</i>
Presenting, remembering, speaking, discussing	At the beginning of the lesson/class I greet the students and remind them about the topic of Violence and we briefly interactively repeat the concept of violence and the types	10 min

Explaining, giving instructions/directions, and describing	Teacher explains the further course of the lesson, give instructions, and describe the tasks step by step	5 min
Watching videos, discussing, suggesting, teacher gives directions explaining only if the groups ask	Task 1.: students are divided into 4 groups of 5 students. Each group is given a different video to review, think about, discuss, and suggest ways and forms of behaviour to get out of the situation - do an online meeting each group separately	15 min
Students make Power Point presentations, dividing tasks and each slide among them-5 slides, the teacher gives directions explaining only if the groups ask	Task 2.: Make a short Power Point presentation of 5 slides - one for each student - present the situation from the video, their discussion and ideas and forms, ways of behaving to get out of the situation, What, who and how can help.	15 min
Presenting, speaking, listening teacher is giving directions explaining only if the groups, students ask	Task 3. Presentations to the whole class in Teams online meeting altogether-each group 5 mins., each member/student 1 min 1 slide	20 min
The teacher sums up the results of presentations Power Point, giving short brief of what we worked and talked about during the lesson	Summing up about what we have learned about different types of violence and how to get out of situation, teacher gives a short brief of the most important learned today	15 min
Teacher is giving directions explaining, students go to google forms and fulfil the self-assessment	Self-assessment of students experiences in topic and in usage of digital tools during the lesson – online google forms	10 min
Blended and remote learning environments <i>Can the activity be replicated in a blended learning environment (online and offline teaching combined) or in a remote learning scenario (fully online teaching)? If so, for which of these two learning environments can it be adapted, or both? Which tools and what preparations are necessary?</i>		
This scenario can be applied in a normal classroom environment. It can be used with all its parts and used in a real classroom following all the steps.		

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

3. Follow up of the Lesson Plan

This section is optional, as not every topic or activity has materials available to complete this. However, we encourage you to try to find materials for follow up and to suggest an evaluation method of the lesson plan!

<p>Follow material and/or homework <i>Help learners complete their learning process by suggested materials the educator can suggest that they read or work on. This can be readings, exercises, websites, a more challenging level of the activity carried out in the lesson plan, etc. If you share any external resources, make sure you have the rights to share those resources.</i></p>	<p>Homework – make a Scratch animation online Hero fighting violence in online environment</p>
<p>Evaluation <i>You can suggest an activity or an exercise that the educator can propose to their students to evaluate the lesson plan. This does not refer to your evaluation of the lesson plan.</i></p>	<p>Launch a Teams online meeting asking student to evaluate/describe the lesson in one word</p>

Other

Are there any comments or details you would like to add regarding this section, which would facilitate the replicability of the lesson plan? Write them below this text!

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Country or region: Croatia



EduRegio: Digital Regions for Education Erasmus+ project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Project EduRegio: Digital Regions for Education

Agreement number: 2019-1-ES01-KA201-065608

Intellectual Output 2: School & Classroom Kits

Project website

fcl.eun.org/edu-regio

 Digitally Competent Teachers

 @Eduregio1 #EduRegio



Provincia Autonoma di Trento

